

*CURRICULUM VITAE*  
**DAVID B. ASHLEY**

**CONTACT INFORMATION**

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**NARRATIVE SUMMARY OF KEY ADMINISTRATIVE AND ACADEMIC  
ACTIVITIES**

**ADMINISTRATIVE RESPONSIBILITIES**

Academic administration experience has been a regular progression from academic department chair, through dean and provost positions, to university president. Primary emphasis has been on assuring academic quality through rigorous evaluation and planning processes engaging all appropriate constituencies. Fiscal stewardship focus and responsibilities have grown with the successive positions; internal emphasis has been on budget development/management, often during extraordinarily difficult circumstances, while external outreach has centered on key legislators, donors and other community leaders. Dean and president positions included substantial capital campaign and fundraising responsibilities – both yielding significant success. All administrative levels included enthusiastic commitment to furthering equity, diversity and inclusion goals. A common, central theme for all these prior administrative positions has been building or enhancing the institution’s reputation as a leading university among its peers.

**RESEARCH AND TEACHING ACTIVITIES**

Development and implementation of risk analysis techniques appropriate for project management and construction engineering decisions serve as central research themes. Designing and testing risk management responses to potential sources of cost overruns or delay are key foci. Other research efforts include determination of factors leading to construction project success, predictive models of project performance, assessment of project change consequential effects, project scope modeling and definition, conceptual estimating, and innovative project financing approaches. Recent subject areas taught include Project Risk Management, Project Evaluation and Financing, Engineering Project Management, Engineering Economy, Professional Practice in Civil and Environmental Engineering, and Civil and Environmental Engineering Senior Design.

## BIOGRAPHICAL INFORMATION – DAVID B. ASHLEY

### EDUCATIONAL DATA

B. S. in Civil Engineering, Massachusetts Institute of Technology, 1973.

M. S. in Civil Engineering (Project Management), Massachusetts Institute of Technology, 1974.

M. S. in Engineering - Economic Systems, Stanford University, 1975.

Ph.D. in Civil Engineering (Construction Engineering and Management), Stanford University, 1977.

### EXPERIENCE

Professor of Engineering Practice, Director–Megacities Center, Sonny Astani Department of Civil & Environmental Engineering, University of Southern California, Los Angeles, CA., August 2015 to present.

Founder and Member-Manager, Ashley Projex, LLC (Hawaii), August 2014 to present.

Professor, College of Engineering, University of Nevada, Las Vegas, July 2009 to June 2015.

President, University of Nevada, Las Vegas, July 2006 to July 2009.

Founding Executive Vice Chancellor and Provost, Shaffer-George Chair in Engineering, University of California, Merced, July 2001 to June 2006.

Dean, College of Engineering, The Ohio State University, November 1997 to June 2001.

University of California at Berkeley, Professor of Civil Engineering, August 1989 - October 1997. Chair of Civil and Environmental Engineering Department, June 1993 – October 1997. Technical area (Construction) group leader 1989 to 1993.

University of Texas at Austin, September 1982 to August 1989. Associate Chairman of Civil Engineering Department, September 1988 to August 1989. Professor of Civil Engineering, September 1988 to August 1989. Associate Professor of Civil Engineering, September 1982 to August 1988.

Massachusetts Institute of Technology, 1977 to 1982. Teaching and Research in Graduate Construction Engineering and Project Management Program. Assistant Professor of Civil Engineering, August 1977 to August 1981. Associate Professor of Civil Engineering, September 1981 to August 1982.

Guy F. Atkinson Company, 1975 to 1977. South San Francisco, CA, Special Studies Analyst - Performed internal consultant role within the areas of Engineering, Estimating, Financial Planning, Information Systems and Legal Claims analysis.

University of Santa Clara, 1976 and 1977. Taught two graduate courses in the Engineering Management Program.

### **VISITING FACULTY OR SCHOLAR POSITIONS**

The Danish Technical University, Lyngby, Denmark, 1982 (summer).

University of Stellenbosch, Stellenbosch, South Africa, 1984 (summer) and 1985 (summer).

Chalmers Technical University, Gothenburg, Sweden, 1984 (November).

Royal Swedish Institute of Technology, Stockholm, Sweden, 1985 (May).

Construction Management Program of the Universities of Capetown, Pretoria and Stellenbosch; Republic of South Africa; 1984 (summer) and 1985 (summer).

Pontificia Universidad Católica de Chile (Catholic University of Chile), Santiago, Chile, 1988. (July).

Nanyang Technological University, Singapore, Visiting Lecturer, 1990 (January) to 2002.

### **HONORS, AWARDS AND PROFESSIONAL REGISTRATION**

Registered Professional Engineer (inactive), Texas.

Sloan Traineeship - Massachusetts Institute of Technology.

Construction Institute Fellowship and U. S. Steel Fellowship - Stanford University.

Distinguished Advisor Award - Architectural Engineering, The University of Texas at Austin, 1984.

National Science Foundation, Presidential Young Investigator Award, 1984-1989.

Fluor Centennial Teaching Fellowship #2 - The University of Texas at Austin, 1985 to 1988.

Award of Excellence, Halliburton Education Foundation, University of Texas Engineering Foundation Award, 1985.

Ervin S. Perry Student Appreciation Award, The University of Texas at Austin, 1986.

Phil M. Ferguson Prof. of Civil Engineering, The University of Texas at Austin, September 1988 to August 1989.

American Society of Civil Engineers, Construction Management Award, 1992.

Taisei Endowed Chair in Civil Engineering, 1993 to 1997.

The John C. Geupel Chair in Civil Engineering, 1997 to 2001.

Shaffer-George Chair in Engineering, University of California, Merced, 2001 to 2006.

Member Phi Kappa Phi Honor Society, January 2007 to present.

Doctor of Technology (*honoris causa*), Chalmers University of Technology, Göteborg, Sweden, May 2000.

American Society of Civil Engineers, Peurifoy Construction Research Award, 2004.

Presented the *James A. Henderson Memorial Lecture*, Massachusetts Institute of Technology, Cambridge, Massachusetts, 2005.

Presented the *42nd Arthur J. Boase Lecture*, University of Colorado, Boulder, Colorado, April 2006.

Presented the *Annual Lena C. Bailey Memorial Lecture on Leadership*, The Ohio State University, Columbus, Ohio, November 2007.

Awarded *Significant Sig* status in the Sigma Chi National Fraternity, 2007.

Inducted as *Distinguished Member* of the American Society of Civil Engineers, November 2007.  
Distinguished Lecturer, Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin, February 2008.

Selected one of the *50 Most Influential Persons in Southern Nevada*, 2008.

Elected to the *National Academy of Construction*, October 2008.

Keynote Presentation, *First Global Leadership Forum for Construction Engineering and Management Programs*, "Dimensions of Academic Leadership," Purdue University, March 2011.

## TECHNICAL COMMITTEE AND PROFESSIONAL ACTIVITIES

National Academy of Science, Government-University-Industry Research Roundtable, Working Group 1: Capacity of Academic Science and Engineering - Identification, Recruitment, and Retention of Talent.

NSF Committee to Evaluate Continuation of Presidential Young Investigator Award Program.

NSF Review Panel on Engineering Initiation Grant Program.

American Society of Civil Engineers – Member (Distinguished Member effective November 2007).

American Society of Civil Engineers, Construction Research Council.

American Society of Civil Engineers, Specialty Conference Steering Committee.

Designated "Expert" for International Project Management Association Expert Seminar in Zurich, Switzerland.

External reviewer for Civil and Environmental Engineering Department, University of Michigan, Ann Arbor, April 1994.

National Academy of Engineering, "Frontiers of Engineering" Symposium Planning Committee, 1995-96.

Building Futures Council, Member 1995 to 2010.

External reviewer for Civil Engineering Department, University of British Columbia, February 1997.

External reviewer for Civil and Environmental Engineering Department, Stanford University, Fall 1997.

External reviewer for Civil Engineering Department, Virginia Tech, Spring 1998.

International Advisory Board, International Symposium on Project Management 1997 - *Risks in Projects and Project Oriented Business*, Helsinki, Finland, September 1997.

International Advisory Panel, *Second International Conference on Construction Project Management*, Singapore, January 1998.

American Society of Engineering Education, Engineering Deans' Council, Member, Public Policy Committee 1999-2001.

Chair, Ohio Engineering Deans' Council, October 1999-October 2001.

External reviewer for Faculty of Applied Science and Engineering, University of Toronto, March 2000.

American Society of Engineering Education, Engineering Deans' Council, Member, Executive Board 2000-2001.

FAA - Research, Engineering, Development Advisory Committee (Congressionally mandated), 2000-2007. (Acting Chair 2003).

Member, Board of Directors, Civil Engineering Research Foundation, American Society of Civil Engineers, 2005-2009.

Founding member, Industry Leaders Council, American Society of Civil Engineers, 2009 to present.

Panel member, National Research Council's *Committee on Independent Scientific Review of Everglades Restoration Progress* (CISRERP IV), 2011 to 2012.

Panel member, National Research Council's *Committee on Independent Scientific Review of Everglades Restoration Progress* (CISRERP V), 2013 to 2014.

Chair, National Academies of Sciences, Engineering and Medicine's *Committee on Independent Scientific Review of Everglades Restoration Progress* (CISRERP VI), 2015 to 2016.

## PUBLICATIONS

### *REFEREED/ARCHIVAL*

"Pre-Estimate Cash Flow Analysis" (with Paul M. Teicholz), *J. Construction Div.*, ASCE, vol. 103, no. CO3, Proc. Paper 13213, Sept. 1977, pp. 369-379.

"Simulations of Repetitive-Unit Construction," *J. Construction Div.*, ASCE, vol. 106, no. CO2, Proc. Paper 15495, June 1980, pp. 185-194.

"Allocating Risk and Incentive in Construction" (with Raymond E. Levitt and Robert D. Logcher), *J. Construction Div.*, ASCE, vol. 106, no. CO3, Proc. Paper 15710, Sept. 1980, pp. 297-305.

"Coordinated Insurance for Major Construction Projects," *J. Construction Div.*, ASCE, vol. 106, no. CO3, Proc. Paper 15697, Sept. 1980, pp. 307-313.

"Construction Joint Ventures," *J. Construction Div.*, ASCE, vol. 106, no. CO3, Proc. Paper 15698, Sept. 1980, pp. 267-280.

"Critical Decision Making During Construction (with Kazuyoshi Uehara and Burke E. Robinson), *J. Construction Eng. and Management*, ASCE, vol. 109, no. 2, June 1983, pp. 146-162.

"Influence Diagramming for Analysis of Project Risks" (with Ivars Avots), *Project Management Journal*, March 1984, pp. 56-62.

"Owner-Controlled Insurance Programs for Underground Construction," *Underground Space*, Pergamon Press, vol. 8, no. 2, March-April 1984, pp. 111-116.

"Countertrade Financing: Historical Example" (with M. Benjamin Wharry), *J. Construction Engineering and Management*, ASCE, vol. 113, no. 1, March 1987, pp. 117-124.

"Determinants of Construction Project Success" (with Clive S. Lurie and Edward J. Jaselskis), *Project Management Journal*, vol. XVIII, no. 2, June 1987.

"Political Risks in International Construction" (with J.J. Bonner), *Construction Engineering and Management*, ASCE, vol. 113, no. 3, Sept. 1987, pp. 447-467.

"Impact of Various Construction Contract Clauses" (with C. William Ibbs), *Construction Engineering and Management*, ASCE, vol. 113, no. 3, Sept. 1987, pp. 501-517.

"Prototipo de Sistema Experto para la Investigacion del Subsuelo" (with M. Benjamin Wharry), *Apuntes de Ingeniería* 28, July-September 1987, pp. 59-73.

"Expert Systems in Construction: Work in Progress" (with Raymond E. Levitt), *J. Computing in Civil Engineering*, ASCE, vol. 1, no. 4, Oct. 1987, pp. 303-311.

"Contract Risk Allocation and Cost Effectiveness," *Construction Industry Institute Publication 5-3*, November 1988.

"Optimal Allocation of Project Management Resources for Achieving Success" (with Edward J. Jaselskis), *Journal of Construction Engineering and Management*, ASCE, Vol. 117, No. 2, June 1991.

"Lunar Base Construction Equipment and Methods Evaluation" (with Walter W. Boles and Richard L. Tucker), *Journal of Aerospace Engineering*, American Society of Civil Engineers, Vol. 6, No. 5, pp. 217-235, July 1993.

"A Tutorial in Project Risk Analysis by Normative Decision-Modeling" (with Takayuki Minato), *Journal of Construction Management and Engineering (Japan)*, No. 522/VI-28, September 1995.

"A Risk Analysis Methodology for Corporate Management Options" (with Takayuki Minato), *Journal of Construction Management and Engineering (Japan)*, No. 522/VI-28, September 1995.

"Modeling Project Performance in Decision Making" (with Luis F. Alarcón), *ASCE, Journal of Construction Engineering and Management*, Vol. 122, No. 3, September 1996, pp. 265-273

"Use of Simulation in Crew Balancing and Resource Allocation for Multiple-Unit Housing Construction," *Proc., Int. Assn. of Housing Science Conf. 1978; Housing Problems in Developing Countries*, vol. 1, John Wiley & Sons, Chichester, England, 1978, pp. 558-567.

"Advantages and Limitations of Adaptable Tunnel Design and Construction Methods" (with Herbert H. Einstein and Edward C. Tse), Chapter 57 in *Proc., Rapid Excavation and Tunneling Conf.*, Atlanta, Georgia, June 1979, pp. 989-1011.

"Geological Prediction and Updating in Tunneling - A Probabilistic Approach" (with D. Veneziano, H.H. Einstein and M.H. Chan), *22nd U.S. Symposium on Rock Mechanics*, June 29-July 1, 1981, Massachusetts Institute of Technology, Cambridge, MA.

"Construction-Risk Estimating in Developing Countries" (with Tadashi Higashi), *Proc., Third Int. Symposium on Organization and Management of Construction*, CIB, W-65, July 6-8, 1981, Dublin, Ireland, pp. C.2.82-C.2.100.

"Construction Project Risks: Mitigation and Management," *Proc., Project Management Institute/Internet Joint Symposium*, Sept. 28-30, 1981, Boston, MA, pp. 331-340.

"Financial Risk Management for Underground Construction," Chapter 77 in *Proc., Rapid Excavation and Tunneling Conference*, Chicago, IL, June 1983, pp. 1203-1217.

"Construction Project Risks: Mitigation and Management," *Engineering Advancement Association of Japan (ENAA) Journal*, Winter 1983-84, pp. 36-46,

"An Intelligent Construction Risk Identification System," *Proc., 6th International Symposium of Offshore Mechanics and Arctic Eng.*, Houston, TX, March 1-5, 1987, ASME Paper No. OMAE-87-337.

"An Implementation Strategy for Improving Project Control Systems" (with C. William Ibbs, James M. Neil and Frank Feiler), *Project Controls: Needs and Solutions, Proc.*, Construction Division Specialty Conference, ASCE, ed. by C. William Ibbs and David B. Ashley, June 8-9, 1987, pp. 101-112.

"Combining Multiple Expert Assessments for Construction Risk Identification" (with Sara L. Stokes and Y-H Perng), *Proc., 7th Int. Symp. Offshore Mechanics and Arctic Eng.*, Houston, TX, February 7-12, 1988, ASME Paper No. OMAE-88-420A.

"A Methodology for Modeling Construction Requirements for a Manned Lunar Base" (with Walter Boles), *Proc., ASCE Conf: Space 88, Engineering, Construction and Operations in Space*, August 29-31, 1988, Albuquerque, NM, 11 pp.

"Achieving Construction Project Success through Predictive Discrete Choice Models" (with Edward Jaselskis), *Proceedings, INTERNET '88, The Ninth World Congress on Project Management*, September 4-9, 1988, Glasgow, Scotland.

"Integrating Expert Judgment into Conceptual Estimating" (with Alfredo Serpell and Choon Hoe Tan), *Proc., Project Management Institute 1988 Seminar/Symposium*, Sept. 17-21, 1988, San Francisco, CA.



"Project Risk Identification Using Inference, Subjective Expert Assessment and Historical Data," *Internet Expert Seminar on Project Risk Management*, Atlanta, GA, October 1989.

"A Construction Operations Study for an Evolutionary Lunar Base" (with Lisa Bell and Walter Boles), *Proc., Engineering, Construction, and Operations in Space International Conference*, ASCE, Albuquerque, NM, April 22- 26, 1990.

"Enhancing Decision Analysis Techniques for Lunar Base Construction Research" (with Walter W. Boles), *Proceedings, ASCE Conference Space 92, Engineering, Construction, and Operations in Space*, ASCE, Denver, CO, May 31-June 4, 1992.

"A Modeling Approach to Predict Project Performance" (with Luis F. Alarcón), *Proceedings, Project Management Institute 24th Annual Seminar/Symposium*, San Diego, CA, October 1-7, 1993, pp. 105-110.

"Modeling Project Team Strategies in Construction Projects" (with Luis F. Alarcón), *Proceedings of the First European Conference on Product and Process Modelling in the Building Industry*, pp. 54, Dresden, Germany, October 5-7, 1994.

"The Need and Requirements for Project Performance Models" (with L. F. Alarcón), *Proceedings of the First European Conference on Product and Process Modelling in the Building Industry*, Dresden, Germany, October 5-7, 1994, pp. 53.

"Computer-Aided Project Decision Making" (with L. F. Alarcón, P. Venegas, and A. Bastías), *Proceedings, 2nd International Conference on Computing in Civil Engineering*, American Society of Civil Engineers, ASCE, Atlanta, USA, June 7-10, 1995, pp. 1553-1560.

"Cross-Impact Methodology for Project Decision Making" (with Luis F. Alarcón). *CERRA ICASP-7, 7th International Conference on Application of Statistics and Probability*, Paris, France, July 10-13, 1995.

"Cognitive Aspects of Influence Diagram Modeling" (with Luis F. Alarcón), *Proceedings, 6th International Conference on Computing in Civil and Building Engineering*, Berlin, Germany, July 12-15, 1995.

"Modeling Project Performance for Decision Making" (with Luis F. Alarcon), *Journal of Construction Engineering and Management*, Vol. 122, No. 3, pp. 265-273, 1996.

"Computer Implementation of the Impact of Early-Planning Decisions on Project Performance" (with Nadia Akel, Chih-Che Tsai and Paul Teicholz), *Proceedings of the COBRA '96 Conference - The Construction and Research Conference of the Royal Institution of Chartered Surveyors*, Bristol, U.K., September 19-20, 1996.

"The Impact of Early-Planning Decisions on Project Performance" (with Nadia Akel, Chih-Che Tsai and Paul Teicholz), *CIB, 3rd International Symposium on the Applications of the Performance Concept in Building*, Tel Aviv, Israel, December 9-12, 1996.

“Data-Driven Analysis of ‘Corporate Risk’ Using Historical Cost-Control Data” (with Takayuki Minato), *Journal of Construction Engineering and Management*, ASCE, Vol. 124, No. 1, January/February 1998, pp. 42-47.

“Evaluation and Competitive Tendering of BOT Power Plant Project in China” (with Shou Qing Wang, R.L.K. Tiong, Seng Kiong Ting and David Chew), *Journal of Construction Engineering and Management*, ASCE, Vol. 124, No. 4, July/August 1998, pp. 333-341.

“Evaluating Viability of Privatized Transportation Projects” (with Richard Bauman, Jim Carroll, James Diekmann and Frank Finlayson), *Journal of Infrastructure Systems*, ASCE, Vol. 4, No. 3, September 1998, pp. 102-110.

“Risk Management of Shanghai’s Privately-Financed Yan’an Donglu Tunnels” (with W. R. Zhang, S. Q. Wang, R. L. K. Tiong, and S. K. Ting), *Journal of Engineering, Construction and Architectural Management*, Vol. 5, December 1998, pp. 399-409.

“Project Management Decision Making Using Cross-Impact Analysis” (with Luis F. Alarcon), *International Journal of Project Management*, Vol. 16, No.3, pp. 145-152, 1998.

“Risk Management Framework for BOT Power Projects in China” (with Shou Qing Wang, R .L. K. Tiong and S.K. Ting), *The Journal of Project Finance*, Vol. 4, No. 4, Winter 1999, pp. 56-67.

“Playing Games: Evaluating the Impact of Lean Construction Strategies on Project Cost and Schedule” (with Luis F. Alarcón), Tommelein, I. (ed.), *Proceedings IGLC-7*, University of California, Berkeley, July 1999, pp. 263-274.

“Political Risks: Analysis of Key Contract Clauses in China's BOT Projects,” (with Shou Qing Wang, R. L. K. Tiong, and S. K. Ting), *Journal of Construction Engineering and Management*, ASCE, Vol. 125, No. 3, May/June 1999, pp. 190-197.

“Case Study of Government Initiatives for PRC's BOT Power Plant Projects” (with Shou Qing Wang, and R. L. K. Tiong), *International Journal of Project Management*, Elsevier Science and International Project Management Association, Vol. 18, Issue 1, , Feb. 2000, pp.69-78.

“Evaluation and Management of Foreign Exchange and Revenue Risks in China's BOT Projects” (with Shou Qing Wang, R. L. K. Tiong, and S. K. Ting), *Journal of Construction Management and Economics*, E & FN Spon (Editor: University of Reading, UK), Vol. 18, No. 2, , March 2000, pp.197-207.

“Foreign Exchange and Revenue Risks: Analysis of Key Contract Clauses in China's BOT Project” (with Shou Qing Wang, R. L. K. Tiong, and S. K. Ting), *Journal of Construction Management and Economics*, E & FN Spon (Editor: University of Reading, UK), Vol. 18, No. 3, April 2000, pp. 311-320.

“Evaluation and Management of Political Risks in China's BOT Projects” (with Shou Qing Wang, R. L. K. Tiong, and S. K. Ting), *Journal of Construction Engineering and Management*, ASCE, Vol. 126, No. 3, May/June 2000.

“The Impact of Planning Strategies on Project Performance: Learning from Real and Model Projects” (with Luis F. Alarcón and Juan C. Cruz), Serpell, A. (ed.), *Proceedings of the CIB W92 Procurement System Symposium – Information and Communication in Construction Procurement*, Santiago, Chile, March 2000, pp. 329-344.

“Risk Planning and Management for the Panama Canal Expansion Program” (with Luis F. Alarcón, Angie Sucre de Hanily, Keith R. Molenaar, and Ricardo Ungo), *ASCE Journal of Construction Engineering and Management*, Vol. 137, Issue 10, Oct. 2011, pp. 762-771.

“*Progress Toward Restoring the Everglades: The Fourth Biennial Review - 2012*” (Authorship by the Committee on Independent Scientific Review of Everglades Restoration Progress – CISRERP IV), Water Science and Technology Board, Board on Environmental Studies and Toxicology, National Research Council, Washington, DC, The National Academies Press, 2012.

“*Progress Toward Restoring the Everglades: The Fifth Biennial Review - 2014*” (Authorship by the Committee on Independent Scientific Review of Everglades Restoration Progress – CISRERP V), Water Science and Technology Board, Board on Environmental Studies and Toxicology, National Research Council, Washington, DC, The National Academies Press, 2014.

“*Progress Toward Restoring the Everglades: The Sixth Biennial Review - 2016*” (Authorship by the Committee on Independent Scientific Review of Everglades Restoration Progress – CISRERP VI, D. Ashley – Chair), Water Science and Technology Board, Board on Environmental Studies and Toxicology, National Academies of Sciences, Engineering and Medicine, Washington, DC, The National Academies Press, December 2016.

### ***OTHER PUBLICATIONS***

*Construction Project Risk-Sharing*, Department of Civil Engineering Technical Report No. 220, Stanford University, Stanford, California, July 1977.

*A Quantitative Method for Analyzing the Allocation of Risks in Transportation Construction* (with Raymond E. Levitt, Robert D. Logcher and Michael W. Dziekan), M.I.T. Department of Civil Engineering, Research Report No. R78-25, Publication No. 605, prepared for the U.S. Department of Transportation, Report No. UMTA-MA-06- 0100-79-1, April 1979, 160 pp.

*Options for Managing the Design and Construction of Mass Transit* (with Raymond E. Levitt, Robert D. Logcher and James M. Wolahan), M.I.T. Department of Civil Engineering, Research Report R79-20, prepared for U.S. Department of Transportation, Urban Mass Transit Administration, May 1979.

*Management of the Construction Industry in Egypt--Seminar Proceedings*, Editor, M.I.T./Cairo University, Technological Planning Program, Cairo, Egypt, January 1980.

"Resources and Contractors in Egypt: A Review" (with Tarek Selim), *Management of the Construction Industry in Egypt--Seminar Proceedings*, Cairo University/M.I.T., Technological Planning Program, Cairo, Egypt, January 1980, pp. 45-73.

"Contracts in Egyptian Construction" (with Tarek Selim), *Management of the Construction Industry in Egypt-- Seminar Proceedings*, Cairo University/M.I.T., Technological Planning Program, January 1980, pp. 113-125.

*Enhancing Construction through State-of-the-Art Research* (with Richard L. Tucker), prepared under Contract NSF CEE-8319806 for the National Science Foundation, The University of Texas at Austin, October 1984.

"Financial Risk Management for Underground Construction," *National Development: Middle East/Africa*, March 1984, pp. 33-38.

*Goals Identification and Implementation in Construction Contracting* (with Nana Boachie-Danquah), Research Report, Department of Civil Engineering, The University of Texas at Austin, June 1985, 219 pp.

*Incentives in Construction Contracts* (with B. Wayne Workman), Research Report UTCEPM-85-3, Department of Civil Engineering, The University of Texas at Austin, December 1985, 132 pp.

*A Construction Project Risk Identification Relational Database* (with Peter A. Bliudzius), Research Report UTCEPM-85-4, Department of Civil Engineering, The University of Texas at Austin, December 1985, 82 pp.

*Analysis of Construction Contract Change Clauses* (with Joseph J. Mathews), Research Report UTCEPM-85-2, Department of Civil Engineering, The University of Texas at Austin, Volume I, April 1986, 116 pp.

*Analysis of Construction Contract Change Clauses* (with Joseph J. Mathews), Research Report UTCEPM-85-2, Department of Civil Engineering, The University of Texas at Austin, Volume II, April 1986, 254 pp.

*Impact of Various Construction Contract Types and Clauses on Project Performance*, Construction Industry Institute Publications 5-1, July 1986. (This was a CII Contracts Task Force Report, C. William Ibbs was the principal author.)

*Achieving Outstanding Construction Project Outcomes* (with Rory A. Salimbene), Construction Engineering and Project Management Program, Report Number UTEPM-86-2, December 1986, 88 pp.

"New Trends in Risk Management," *New Approaches in Project Management, Proc.*, 10th Int. Expert Seminar, International Project Management Association, Zurich, Switzerland, March 10-12, 1986, pp. 45-66.

"Allocating Risk and Incentive in Construction" (with Raymond E. Levitt and Robert D. Logcher), *Legal Handbook for Architects, Engineers and Contractors*, Vol. 2, Risk and Risk Management, ed. by Albert Dib, Clark Boardman Company, Ltd., New York, 1986, pp. 117-127.

*Resolving Subsurface Risk in Construction Using an Expert System* (with Mark B. Wharry), Research Report UTCEPM-86-1, Department of Civil Engineering, The University of Texas at Austin, January 1986, 96 pp.

*Contract Clause Study Data* (with Joseph J. Mathews), Research Report UTCEPM-85-1, Department of Civil Engineering, The University of Texas at Austin, April 1986.

"Coordinated Insurance for Major Construction Projects," *Legal Handbook for Architects, Engineers and Contractors*, Vol. 2, Risk and Risk Management, ed. by Albert Dib, Clark Boardman Company, Ltd., New York, pp. 129-137, 1986.

*Project Controls: Needs and Solutions*, co-edited with C. William Ibbs, American Society of Civil Engineers - Construction Division Special Publication, June 1987.

"A Knowledge-Based Approach for End-Use Design Stresses in Wood" (with D. L. Wheat), *Proc., ASCE Spring Convention*, Atlantic City, NJ, 1987.

"Knowledge-Based Approach to Construction Project Planning," *New Trends in Project Management, Proc.*, 11<sup>th</sup> Int. Expert Seminar, International Project Management Association, Zurich, Switzerland, April 2-4, 1987.

"Modeling Construction Requirements for a Manned Lunar Base" (with Walter Boles), *Symposium: Lunar Bases & Space Activities in the 21st Century*, April 5-7, 1988, Houston, Texas, Paper No. LBS-88-079, pp. 1-13.

"Delivering Liquid Oxygen to Low Earth Orbit" (with Curt Bilby and George McGlamery), *Symposium: Lunar Bases & Space Activities in the 21st Century*, April 5-7, 1988, Houston, Texas, Paper No. LBS-88-074.

*Impact of Risk Allocation and Equity in Construction Contracts* (with Michael M. Parker and James R. Dunlop), Construction Industry Institute Source Document 44, March 1989.

"Moderator's Report on Workshop A: Methods of Risk Definition and Identification," *Internet Expert Seminar on Project Risk Management*, Atlanta, GA, October 1989.

*A Pilot Study on Incentives* (with Luis Alarcón), a report to the Construction Industry Institute, Nov. 1990.

*A Cost Comparison of Contracting Out for Engineering Services by CALTRANS Versus In-House Engineering* (with C. W. Ibbs, G. Ballard, S. Staneff, and C-H Kim), A Report to Caltrans, June 1992.

*Project Performance Modeling: A Methodology for Evaluating Project Execution Strategies* (with Luis F. Alarcón), a report to the Construction Industry Institute, Source Document 80, September 1992.

*Public/Private Partnership Project Evaluation* (with James E. Diekmann), A report to the Morrison Knudsen Corporation, August 1994.

*Report on the Construction-Related Plant Upset at San Mateo Water Quality Control Plant, Summer 1994*" (with D. Jenkins and P. A. Pitt), January 1995.

"Impact of Risk Allocation and Equity in Construction Contracts" (with James R. Dunlop and Michael M. Parker), chapter in *Risk Management and Procurement in Construction*, John Uff and A. Martin Odams, Editors, Centre of Construction Law and Management, King's College, London, 1995.

"The Risks of Remedial Actions: Why a 'Total Risk' Approach to the Selection of Remedy is Necessary" (with Sigrida Reinis), Construction Engineering and Management Program Working Paper, Department of Civil and Environmental Engineering, University of California, Berkeley, 1996.

*California Prison Capital Cost Reduction Study* (with Professor Melvin Ramey, UC Davis), a report to the California State Legislature, July 1996.

"Linking Early Project Decisions with Project Outcomes (Cost, Schedule, Quality): General Performance Model" (with Paul M. Teicholz), *Center for Integrated Facility Engineering (Stanford University) Summer Program 1996*, July 28-August 2.

"Computer Implementation of the Impact of Early-Planning Decisions on Project Performance" (with N. Akel, C. C. Tsai and Paul M. Teicholz), Construction Engineering and Management Program working paper, Department of Civil and Environmental Engineering, University of California, Berkeley, 1996.

"Risk Management of BOT Projects in China" (with S.Q. Wang and R.L.K. Tiong), *Second International Conference on Construction Project Management*, Singapore, February 19-20, 1998, pp. 177-181.

"Evaluation of Completion Risks in Construction Projects" (with W. F. Ho and R. L. K. Tiong), Working Paper, School of CSE, NTU, Singapore, 1998.

"Risk Management of BOT Power Projects in China" (with R. L. K. Tiong, Shou Qing Wang, and S. K. Ting), Research Report, School of CSE, NTU, Singapore, June 1998.

“Evaluation and Management of Foreign Exchange and Revenue Risks in BOT Projects” (with R. L. K. Tiong, S. K. Ting, S.K., and ShouQing Wang), *Dr. Tan Swan Beng Memorial Symposium – Excellence in Infrastructure Engineering*, Singapore, March 1999, pp. 213-228.

*Recording Lessons Learned on the Pocahontas Parkway Project* (with M. C. Vorster and A. D. Songer), prepared for the Virginia Department of Transportation, December 2002.

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## SUMMARY OF PRIOR ADMINISTRATIVE POSITIONS WITH RESPONSIBILITIES AND ACCOMPLISHMENTS (CHRONOLOGICAL)

- **Associate Chair**, Civil Engineering Department, University of Texas at Austin, (September 1988 to August 1989). I was also the Phil M. Ferguson Professor of Civil Engineering.
  - **Accreditation:** I supported the Chair in various activities as requested, especially preparing for our ABET-accreditation visit.
  - **Planning:** I chaired a departmental strategic planning committee called “Blue Sky” that included primarily younger-to-mid-career faculty; the concept was that these faculty members will have a greater stake in the outcome.
- **Chair**, Civil and Environmental Engineering Department, University of California at Berkeley (June 1992 – October 1997). I also held the Taisei Endowed Chair in Civil and Environmental Engineering.
  - **Faculty recruitment:** During the mid-to-late-1990s, the University of California had three voluntary early retirement programs (VERIPs I., II. and III.). UCB Civil and Environmental Engineering lost 21 senior faculty to retirement including several National Academy members. I was responsible for hiring 17 faculty in five years to fill those vacancies; most were at the assistant professor level.
  - **Planning:** We developed a new strategic plan based on the significant turnover of faculty and opportunities to invest in new areas.
  - **Academic personnel:** The University of California has extremely rigorous academic personnel evaluation and advancement processes. Department chairs are the key individuals in initiating and managing these processes. The larger number of new hires and younger faculty made this a particularly demanding responsibility.
  - **Facilities:** I also served as the College of Engineering’s Associate Dean for Facilities. I served on several Provost task forces to review campus-wide building seismic safety and construction procurement practices. I also managed the planning and review for a new Biomedical Engineering teaching/research facility for the college.
  - **Campus reviews:** The Provost also appointed me to chair two critical academic reviews, one for a dean appointment renewal and the other was a gender-equity evaluation.
- **Dean**, College of Engineering, The Ohio State University (November 1997 to June 2001). I also held the John C. Geupel Chair in Civil Engineering.
  - **College CEO:** The Ohio State University College of Engineering is one of the oldest and largest engineering colleges in the country. It has 9 engineering academic departments and the Knowlton School of Architecture. When I was Dean, we had approximately 290 faculty, 6000 students and a \$100 million/year budget (engineering research was included in the college budget).
  - **“Engineering-First” undergraduate curriculum:** At OSU we developed and implemented a new first-year curriculum focused on creating early engineering experiences and team problem solving. The curriculum was based on the NSF



“Gateway” Engineering Education Coalition research. Students were introduced to calculus, physics and other supporting concepts in a “just in time” and group project context. Student retention rates dramatically increased from approximately 45% to over 70%.

- **Internships:** Many companies see student internships as a win-win. They support engineering students at a key point in their professional development and have an excellent opportunity to evaluate their future potential. The emphasis on experiential learning and internships was exceptionally high at OSU; as a consequence, companies enthusiastically funded the college of engineering career services office with the dual goal of providing internship support and job placement services.
- **Industry partnerships:** Corporate support for academic programs is critical to many fields. Companies want access to interns, graduates, and state-of-the-art research. Their philanthropy and service to the university are most often linked to the long-term health of important research or academic programs. At OSU, we developed a formal corporate partnership program where each agreement included the following: corporate visibility, better access to prospective interns and graduates, direct support for specific graduate programs through scholarships or curriculum development funding, research project funding, and long-term philanthropy commitments.
- **Diversity:** We established a corporate-led diversity advisory board and secured several new grants and endowments to support students and activities.
- **Advancement and fund raising:** OSU had just started a major capital campaign when I joined as Dean. I raised over \$190 million for the College of Engineering including new endowed chairs, new buildings and significant scholarships.
- **Facilities:** During my tenure as Dean, we designed and built the new Knowlton School of Architecture building. We also secured the donor gift and completed all planning/design for the Peter L. and Clara M. Scott Laboratory (Mechanical Engineering).
- **Accreditation:** As a large engineering college, we had a substantial number of ABET-accreditation reviews at the same time (16 total). We were among the first group to undergo the “new criteria-2000” reviews – we actually had a choice of using the old standards or the new, assessment-feedback criteria. We chose the new criteria and thus had a significant preparation task. We obtained full-term accreditation for all programs.
- **Campus-wide initiatives:** I chaired the campus-wide distribution of new environmental science faculty positions (approximately 12 new positions). We used the first allocation to support a major NSF research program/center involving three colleges. The President also appointed me to two major campus-wide committees (both had intentionally small memberships): Academic (Strategic) Planning and Diversity Action.

- Founding **Executive Vice Chancellor and Provost**, University of California at Merced (July 2001 to June 2006). I was also the Shaffer-George Chair in Engineering.  
*[The University of California-Merced is the tenth campus in the University of California System and located in California's Central Valley. It is planned to be a comprehensive, research campus with a mix of graduate and undergraduate students; degree programs in social sciences, humanities, arts, engineering and natural sciences. The first, permanent buildings were opened in 2004, first graduate students enrolled in 2004, first 850 undergraduate students enrolled in 2005, and first graduation was in 2006. The eventual build out will be more than 25,000 students and will add professional schools in management and medicine].*
  - **Curriculum (*ab initio*):** As founding Executive Vice Chancellor and Provost at UC Merced, I was ultimately responsible for all curriculum development activities. Our approach was to hire three leading academics as strong deans to found the first three schools: 1) engineering, 2) natural sciences, and 3) social sciences, humanities and arts. Each dean was provided an initial allocation of faculty positions, space, and other resources. They were to work first with other UC faculty and then their own faculty to establish at least two undergraduate degree programs in each school that would be especially attractive to prospective UC-bound students and world-class faculty.
  - **Service-based engineering projects:** The School of Engineering at UC Merced made a major commitment to service-based learning centered on the EPICS model originated at Purdue University. The engineering dean was also successful in securing major endowment support for this effort from the Foster Family Foundation.
  - **Diversity:** From the outset, sensitivity to California Central Valley needs and prospective, regional students was strongly encouraged. We envisioned a UC-caliber research university that would also be an Hispanic-serving institution within a few years (this was accomplished within the first five years of opening).
  - **Recruitment:** I was officially the first faculty member and second vice chancellor hired at UC Merced. Hiring research university caliber faculty was my first and most important priority; we had a plan to hire one hundred faculty by opening day. The process necessarily started with recruiting the three school deans so they could mount appropriate academic planning and initiate faculty searches. The first fourteen open positions (all senior) brought in over 6,000 applications. We elected to use the academic equivalent to a “best athlete” approach to select and recruit this founding faculty. I was also responsible for hiring the remaining vice chancellors, university librarian and additional academic staff.
  - **Facilities:** We had temporary offices in a former dental suite, a former Air Force SAC base and a downtown bank building. We needed to house our inaugural faculty and their research labs, as well as, our administrative staff until the first university buildings could be built and commissioned on our *greenfield* site. Building the campus required significant environmental planning and creating all the basic infrastructure to support the built-out campus.
  - **Accreditation:** We took all necessary steps to pursue university-level accreditation from WASC; accreditation was subsequently awarded on time. We also initiated all program-level accreditation through such authorities as ABET.

- **President**, University of Nevada, Las Vegas, 2006 to 2009.  
*[UNLV has historically been a commuter campus and has approximately 28,000 students. Research has been modest-to-moderate, with ambitions to significantly increase its research profile and activity. The strongest programs are hospitality management, law, and some areas of the sciences. Civil and Environmental Engineering is slightly more visible and higher ranked than the other engineering programs].*
  - **Diversity:** My activities in this area included securing major grants and endowments, creating a new vice-presidential unit devoted to diversity and inclusion, and establishing a campus-wide multi-cultural center. We took significant steps to increase under-represented minority enrollment leading to UNLV now being cited as one of the most diverse college campuses in the country.
  - **Budgeting and government relations:** Higher education budgets in Nevada are funded biennially (every two years) with a mid-point review and adjustment downward if state revenues fall below predictions. Each campus president was responsible for developing his/her own unit's budget proposal, meeting with legislators and testifying before the appropriate committees. I participated in two biennial sessions and one mid-term session (10% state revenue shortfall). The 2009 biennial session was particularly difficult since the Governor initially proposed a greater than fifty percent reduction in funding for each university. Thus, each spring during my presidential tenure, I was fully engaged in budgeting and legislative activities, often spending two or more days per week in the state capitol working with legislators and legislative analysts to better understand our funding situation. We were particularly successful in the 2009 session to reduce the budget cuts to a survivable twelve percent.
  - **Development:** During my three years as President, I devoted substantial effort to advancement and fund raising, including the last \$190 million to complete UNLV's \$500 million capital campaign in particularly difficult economic times.
  - **Research support:** Very soon after my arrival, we made several key changes to our research operations. I immediately appointed a new interim research Vice President and started a search for a permanent hire. We significantly bolstered our research compliance office and improved documentation and accounting. The indirect money returns were realigned to more directly support the PIs and colleges winning the competitive awards. Earmark funding was discouraged, formally and informally, and plans were developed to migrate several directly-funded programs to competitive grant bases. Additionally, I completely reconfigured the internal grant programs to shift from token awards spread broadly to one that better supported the research start-up of younger faculty and encouraged more interdisciplinary research efforts.
  - **Facilities:** During my tenure, we built a new student union, the recreation-wellness center, a new academic complex for the Greenspun College of Urban Affairs, and a major, new science and engineering building (SEB). The SEB was, and still is, the largest state-funded building project in Nevada history; it provides essential laboratory, research and collaboration space consistent with UNLV's increased research ambitions.