

August 11, 2016

Dr. Robert Holyer
AGB Search, Inc.
CentralPresident@agbsearch.com

Dear Dr. Holyer:

I am pleased to accept your invitation to apply for the position of President of Central Connecticut State University. I am excited about the possibility to serve as chief executive officer of this student-centered institution.

My academic and administrative experience involves service in various positions in both private and public institutions of higher education. Throughout my career, I have been focused on developing and implementing strategic plans with the goal of facilitating student, faculty and staff success, building partnerships and community engagement to serve economic development needs, building multidisciplinary research and education programs, diversifying funding sources, and building agile organizations. I am ready to use my experience, background, and enthusiasm to serve Central as its next leader.

Currently, I serve as Interim Chancellor at the University of Arkansas at Little Rock (UALR). UALR is a metropolitan, research, community-engaged university that serves 12,000 students. Thirty one percent of these students are from underserved populations, 47 percent are at least 25 years old, and 89 percent are from Arkansas. I am responsible for managing all operational aspects of the institution with a budget of \$168 MM, community and government relations, fundraising, as well as enrollment management.

Concurrent with this interim appointment, I continue to serve as UALR's Provost. I have led the institution through a comprehensive restructuring process to enhance interdisciplinary collaboration and facilitate UALR's timely response to the changing needs of the city, state, and nation in terms of curricula, community engagement, and research. The restructuring process created an efficient academic structure resulting in cost savings allowing UALR to match available resources to strategic priorities.

As UALR's Provost I have partnered with the faculty, deans, and staff to develop or rethink programs, led the establishment of strategic partnerships, guided the reengineering of processes; and, in collaboration with faculty, staff, and students, built the infrastructure to make of UALR A Top Metropolitan, Community-Engaged, Research University Among the 16 Member State of the Southern Regional Education Board.

Evidence of the effectiveness of the initiatives implemented under my tenure includes: an increase in full-time, first-time freshmen first-year retention rate from 67 percent to 72 percent in three years; six-year graduation rate went from 22 percent to 27 percent in three years; a 4.4 percent increase in graduate enrollment in two years; and a 20 percent increase from fall 2013 to fall 2015 in high school concurrent enrollment. In addition, external funding for grant and contracts has increased by 16 percent.

Before joining UALR, I served as Dean of the College of Engineering at Wichita State University (WSU), a metropolitan higher research activity public serving institution. WSU serves over 15,000 traditional and nontraditional students. Of these, 88 percent are from Kansas, and the remainder portion comes from almost every state in the U.S. and 84 foreign countries.

The focus of my tenure at WSU was broad and diverse, including activities as varied as: development and implementation of a vision and a ten-year strategic plan inspired on an "experience-based" undergraduate education model to develop in the graduates the skills and knowledge needed as world citizens and leaders; enhancing research and teaching laboratory infrastructure; instilling a continuous improvement approach for all academic and administrative activities; developing communication and marketing strategies, and working in fundraising initiatives.

The two most transformational accomplishments of my tenure as Dean at WSU were the approval, by the Kansas Legislature, of the *University Engineering Initiative Act* and the development and implementation of the *Engineer*

2020 program. The first of these resulted from a three-year collaborative effort with elected officials and the three deans of engineering in the state. The legislation allocated an additional \$3.5 MM of funding per year to each one of the three colleges of engineering in the state, increasing the WSU College of Engineering annual state funding contribution by 57 percent; the largest percent among the three colleges. The lessons learned from this work will guide me if I am afforded the opportunity to serve as leader and advocate of Central.

In the case of the *Engineer 2020* program, I was able to use this initiative to foster collaborative relationships. This experience gave the faculty, staff and students the opportunity to come up with a unique signature program for the College to develop in the graduates the skills and knowledge required to be successful engineers and global citizens.

In moving the WSU College of Engineering to its next level of academic excellence, the globalization of the programs was a very important strategy. As part of this effort, faculty and student exchanges with foreign institutions of higher education in Peru, the United Kingdom, Malaysia, and India were established. A Global Design Challenge (GDC) was offered in collaboration with some of these international partners.

Strengthening the liberal education foundation of the WSU academic programs was an area of focus for me. In fact, a collaborative effort with the College of Engineering faculty resulted in a position paper that was used by a University Ad-Hoc Committee to rethink the institution's General Education program, a project known as *Integrating Engineering and Liberal Arts Education* was an initiative started in the College.

I am proud of the growth we were able to accomplish: in five years, the number of credit-hours increased by 48 percent, headcount increased by 43 percent overall and 41 percent at the doctoral level. The six-year graduation rate of full-time, first-time freshmen for the College went from 28.6 percent to 34.2 percent. Over \$16 MM were raised from donors and supporters in six years, \$3 MM were obtained from the central administration to equip a new research building and the overhead returned to the College increased by 100 percent. The funding from grants and contracts increased by 126 percent in six years.

New undergraduate and graduate programs as well as new research programs in sustainable engineered systems, bioengineering, nanotechnology, bio-composites, data storage, and wireless communication and networks were established during my tenure as Dean of the College of Engineering at WSU. In support of these new research programs, the Industrial Sustainability Initiative, the Center for Data Storage and Networking and the Center for Innovation and Enterprise Engagement (CIEE) were launched. In addition, funds were raised to pay for the Engineering Research Laboratory Building.

In terms of faculty hiring and development, the number of female faculty members in Engineering increased 250 percent. Also, a faculty enhancement program was launched. Funding for an endowed chair in Sustainable Materials and Energy Systems as well as funding for Faculty of Distinction positions in bioengineering and global engineering leadership was raised. With the goal of facilitating faculty success in obtaining external funding in the college's strategic research thrusts, a Strategic Faculty Fellowship Program was started. A Faculty-Business Fellowship was created to foster faculty engagement with local businesses.

Prior to my experience at WSU, I served at the University of New Haven (UNH): a private, independent, comprehensive university. During my tenure as Dean of the School of Engineering and Applied Science (SEAS), I successfully led many innovative academic initiatives; among them: definition of a new vision and strategic plan for SEAS focused on Multidisciplinary Engineering Education; design and construction of the first multidisciplinary laboratory facility for the implementation of the new vision; redesign of the freshman and sophomore years for all engineering programs; elaboration and implementation of a model for a multidisciplinary engineering curriculum; development of new undergraduate and graduate programs.

Fundraising along with a continuous improvement process were the pillars of my approach to an effective stewardship of the institution's resources. I partnered with UNH's President to secure the first seven-figure gift in the history of the institution. This work taught me that successful fundraising is about relationship building and engaging and exciting potential donors about a vision and making a difference in the life of the people we serve.

Our work with the multidisciplinary engineering curriculum won me the Pfizer-New Alliance Bank Academic Innovation and Leadership Award from the Connecticut Technology Council. This award was a testimony to the fact that transforming engineering education, and higher education in general, is about teamwork.

Finally, I acquired a significant part of my experience at the University of Puerto Rico – Mayaguez (UPRM); a Hispanic-serving land-grant institution. UPRM had an undergraduate enrollment of 12,600 students, 800 graduate students, and a faculty of over 800 professors.

As Chancellor of UPRM, curricula innovation and expansion to support the economic development of the island was a priority and the roadmap to move UPRM toward a doctoral research-intensive institution was developed. A proposal for a total of \$28.8 MM was approved by the Puerto Rico Department of Economic Development and Commerce and a public-private collaboration was created to establish a Technological Corridor in the Western part of the Island.

Other projects worth mentioning are: 1) Establishment of the first Museum of Art in Western Puerto Rico; 2) the Puerto Rico Experimental Program to Stimulate Competitive Technology for which I served as Co-Director; and 3) the creation of an Institutional Minority Graduate Education Program at UPR System for which I served as Co-PI.

Enhancement and development of facilities were activities that required my attention as Chancellor. The design, and construction of a day care center gave me the opportunity to partner with the union representing the professional staff. A new biology building was planned, its funding was secured and construction was started during my tenure. I secured the funding for a new building for the College of Business and its design was completed under my leadership. Funding was also obtained to plan a new building for the Department of Electrical and Computer Engineering.

Prior to my appointment as Chancellor, I served as Dean of the College of Engineering. During my tenure, the undergraduate enrollment increased 51 percent. In addition, four new academic programs were submitted for approval. New initiatives in research were developed, including an alliance involving Boston University, Rensselaer Polytechnic Institute, Northeastern University and UPRM for the establishment of a Center for Subsurface Sensing and Imaging Systems funded by the National Science Foundation (NSF).

In summary, I am strongly committed to academic excellence and broadening participation in higher education, passionate about community engagement, public service, research and economic development, and a facilitator of student, faculty and staff success.

The possibility of serving as Central Connecticut State University's advocate fascinates me. I believe in the transformational power of teamwork and education and in providing faculty, staff, and students the tools and support system to facilitate their success in every endeavor they undertake.

I would be honored to having a conversation with the Search Committee about the position of President of Central Connecticut State University.

Respectfully yours,



Zulma R. Toro

Zulma R. Toro
Interim Chancellor and
Executive Vice Chancellor and Provost
University of Arkansas at Little Rock
2801 South University, Little Rock, AR 72204-1099

Personal Profile

Values: fairness, team work, accountability, honesty, openness, continuous improvement
Experienced transformational leader with passion for excellence and diversity
Committed to be a facilitator for faculty, student and staff success
Knowledgeable in budget and human resource management
Seasoned listener and effective communicator
Adept at aligning budget allocation processes with objectives from strategic plans

Education

Georgia Institute of Technology Industrial and Systems Engineering	Ph.D., 1988
Georgia Institute of Technology Computer Integrated Manufacturing Systems (CIMS) Graduate Certificate	G.C., 1988
University of Michigan Industrial and Operations Engineering	M.S., 1983
University of Puerto Rico Industrial Engineering	B.S., 1982

Leadership Education

Harvard Graduate School of Education Institute for Management and Leadership in Education (MLE)	2010
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University Administrative Experience

July 2016 – Present	Interim Chancellor University of Arkansas at Little Rock, Little Rock, AR
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Chief executive officer of a doctoral research and community-engaged university that offers over 120 programs of study through five colleges and the William H. Bowen School of Law. Provided leadership for academic, student, administrative and financial, and governmental affairs of the only metropolitan institution of the University of Arkansas System serving near 12,000 students with over 450 full-time faculty. Led the advancement and development activities including friend and fundraising. Managed a budget of \$168 MM.

July 2013 – Present Executive Vice Chancellor and Provost
University of Arkansas at Little Rock, Little Rock, AR

Chief academic officer of a doctoral research and community-engaged university that offers over 120 programs of study through five colleges and the William H. Bowen School of Law. Provided leadership for instructional, student success, research, and outreach programs offered by the only metropolitan institution of the University of Arkansas System serving near 12,000 students with over 450 full-time faculty members. Responsible for a budget of \$126 MM. Also, provided leadership to Student Affairs and fostered a strong partnership between this division and Academic Affairs. Led the recruitment, development, and retention of faculty and staff as well as the growth of academic and research programs. Led institutional efforts to assess student-learning outcomes and evaluation of academic programs. Worked with the Office of Development in fundraising and support faculty and staff in their pursuits of grants and contracts. Nurtured innovative partnerships with four and two-year institutions of higher education, Little Rock area school districts, and a variety of other community organizations and groups.

January 2013 – July 2013 Provost and Vice Chancellor for Academic Affairs
University of Arkansas at Little Rock, Little Rock, AR

Chief academic officer of a doctoral research and community-engaged university that offers 120 programs of study through six colleges and the William H. Bowen School of Law. Provided leadership for instructional, student success, research, and outreach programs offered by the only metropolitan institution of the University of Arkansas System serving near 12,000 students with over 500 full-time faculty members. Led the recruitment, development, and retention of faculty and growth of academic and research programs. Partnered with the Faculty Senate to approve a new core curriculum for the institution. Work with the Office of Development in fundraising and support faculty and staff in their pursuits of grants and contracts.

October 2010 – January 2013 Director, Center for Innovation and Enterprise Engagement
Wichita State University, Wichita, KS

Responsible for providing strategic direction and oversight to an organization aimed at strengthening and develop the local manufacturing industries' innovation competencies in manufacturing processes and product capabilities. The goal of the Center is to escalate the development and predominance of the south central Kansas advanced manufacturing cluster in the global economy.

August 2005 – January 2013 Dean, College of Engineering
Wichita State University, Wichita, KS

Responsible for providing overall academic and administrative leadership for a college of 54 full-time faculty members; 1,500 undergraduate, 630 M.S., and 100 Ph.D. students. Obtained an additional \$3.5 MM state funding allocation for the College per year, starting in fiscal year 2013. In fiscal year 2009, the College was awarded \$10.3 MM in grants and contracts, an increase of 140% from fiscal year 2004. Responsible for strategic planning, faculty and staff recruitment, retention, development, and advancement; oversight of undergraduate and graduate programs; program's accreditation; oversight of research and development activities; budget development and supervision; fostering relations with industry, government, and alumni; service on university wide committees; and general management of the College. Led the development and implementation of the Engineer 2020 program for the college based on an Experience-Based Engineering Education model aimed at becoming a leader in engineering education in the Midwest region. Led the creation and implementation of a Global Design Challenge in partnership with Spirit AeroSystems, the University of Manchester, North Carolina State University and the University Sains Malaysia.

July 2001 – July 2005 Dean, School of Engineering and Applied Science
University of New Haven, New Haven, CT

In charge of providing overall academic and administrative leadership for a school of 40 full-time and 30 part-time faculty members; 800 students in ten (10) undergraduate and seven (7) graduate academic programs. Responsibilities include strategic planning, faculty and staff recruitment, retention, development, and advancement; oversight of undergraduate and graduate programs; budget development and supervision; fostering relations with industry, government, and alumni; service on university wide committees; general management of the School. Led the development and implementation of the strategic plan for the school based on Multidisciplinary Engineering Education, aimed at becoming a leader in engineering education in the New England area. Established SEAS Engineering Support Center for Small and Emerging Businesses to assist local industry in becoming competitive.

Jun 1999 - 2001 Chancellor
University of Puerto Rico at Mayagüez

Chief executive officer of Puerto Rico's only land-grant and Hispanic Serving Institution (12,600 undergraduate enrollment; 800 graduate students). Responsible for presiding the Administrative Board, the Academic Senate, and faculty meetings. In charge of appointment of deans, departmental directors and university personnel; solving on appeal the decisions of the deans; identifying external funding sources; representing the campus at functions, ceremonies, and academic activities; preparing for submission to the President the campus annual report and budget petition; fostering and strengthening interactions with industry.

Apr 1998 - Jun 1999 Acting Dean, College of Engineering
University of Puerto Rico at Mayagüez

Responsible for providing overall academic and administrative leadership for a college of 168 full-time faculty members and 4,500 students; seven (7) undergraduate and seven (7) graduate academic programs. Responsibilities include strategic planning, faculty and staff recruitment, evaluation, retention, development, and advancement; oversight of undergraduate and graduate programs; budget development and supervision; fostering relations with industry, government, and alumni; service on university wide committees; general management of the College.

Mar 1998 - Apr 1998 Director of Graduate Studies and Associate Dean for Academic
Affairs
University of Puerto Rico at Mayagüez

Responsible for supervising the admission, recruitment, academic standards, curriculum development, publications (brochures, catalogs, annual reports), program reviews, students records, thesis and dissertation approval, graduation, and student support at the graduate level.

Aug 1995 - Jan 1998 Chairperson, Industrial Engineering Department
University of Puerto Rico at Mayagüez

In charge of all administrative and academic affairs related to an ABET accredited department of seventeen full-time and six part-time professors, with an undergraduate enrollment of 800 students and a graduate enrollment of 45 students.

Feb 1995 - Aug 1995 Acting Chairperson, Industrial Engineering Department University of Puerto Rico at Mayagüez

Responsible for all administrative and academic affairs of the department as explained above.

Dec 1993 - Jan 1995 Associate Chairperson, Industrial Engineering Department University of Puerto Rico at Mayagüez

Responsible for the Industrial Engineering Department graduate program; graduate and undergraduate course scheduling.

Jan 1990 - Jun 1991 Associate Chairperson, Industrial Engineering Department University of Puerto Rico at Mayagüez

Responsible for the Industrial Engineering graduate program; graduate and undergraduate course scheduling.

Institutional Service

Presidential Search Committee, Member, WSU
Search Committee for Dean of Library, Chair, WSU
Tau Beta Pi Student Chapter, Faculty Advisor, WSU
Student Chapter of the Society of Hispanic Professional Engineers, Faculty Advisor, WSU
Program Review Committee, WSU (2007-2008 and 2011-2012)
Globalization Task Force, WSU
VPAAR Office Reorganization Task Force, WSU
Council of Deans and Academic Affairs Council, WSU
Chair, Search Committee for VP of Enrollment Management, UNH
Student Chapter of the National Society of Black Engineers, Faculty Advisor, UNH
Board of Governors' Facilities Committee, UNH
Board of Governors' Advancement and Development Committee, UNH
Global Initiatives Task Force, UNH
Management Committee, UNH
Exploratory Committee on Outcomes Assessment, UNH
Faculty Academic Affairs Committee, College of Engineering, UPRM
Faculty Research Committee, College of Engineering, UPRM
Industrial Engineering Department Course Committee and Graduate Committee, UPRM
Industrial Engineering Department Personnel Committee, UPRM
Campus Medical School Evaluator Committee, UPRM
Campus Committee to Internationalize the University of Puerto Rico, UPRM
Creation of a Manufacturing Engineering Academic Program, UPRM

Advancement and Development Activities

2014	Over \$500,000 from private foundations and organizations to support faculty and student success programs
2012	Over \$3,000,000 from alumni and friends for the advancement of the College of Engineering, including a record year for the Annual Fund Campaign, WSU
2011	Over \$2,000,000 from alumni and friends for the advancement of the College of Engineering, WSU
2010	Over \$2,500,000 from alumni and friends for the advancement of the College of Engineering including endowment for the Boeing Global Engineering Leadership Professorship, WSU
2009	Over \$2,000,000 from alumni and friends for the advancement of the College of Engineering, WSU
2008	Over \$3,000,000 from alumni and friends for the advancement of the College of Engineering, WSU
2007	\$3,000,000 gift to pay for the Engineering Research Laboratory Building, WSU
2007	\$2,000,000 gift for a faculty endowed chair in Sustainable Materials and Energy Systems, WSU
2005-2007	\$2,000,000 gift for a faculty of distinction position and scholarships, WSU
2004	\$2,000,000 gift from alum for the advancement of the School of Engineering and Applied Science, UNH
2002	\$1,150,000 gift from alumni for the advancement of the School of Engineering and Applied Science, UNH

Outreach Activities

2015	Formed a partnership with eSTEM Charter School to relocate its high school to UALR Campus
2014	Created a partnership with Greenbriar High School to provide students the opportunity to earn an Associate Degree along with the High School diploma

- 2011 Led the development and implementation of a collaboration with Dodge City school district to provide exposure to engineering to underrepresented middle school students
- 2010 Oversaw the development of a bridge program for high school seniors
- 2009 Led the development of five new Summer Camps to broaden participation in engineering, WSU
- 2009 Established partnership with the Wichita Hispanic Chamber of Commerce and the city of Wichita to broaden participation in engineering, WSU
- 2008 Formed a Hispanic Advisory Board to seek counseling on how to enhance the educational opportunities in engineering for Hispanics, WSU
- 2008 Established a partnership with Wichita Boys and Girls Club for the implementation of a Robotics Program for middle school students from underrepresented groups, WSU
- 2007 Led the development and offering of two Summer Camps in partnership with the Office of Continuing Education to attract more students into Science, Technology and Engineering professions, WSU
- 2007 Established collaboration with the Kansas Medical School, Wichita Campus to work on bioengineering related projects, WSU
- 2006 Signed a memorandum of understanding with Wichita Area Technical College to expand and enhance the College of Engineering laboratory facilities, WSU
- 2006 Obtained the appointment of the WSU College of Engineering as the only affiliate center in the state of Kansas of the national organization Project Lead the Way, WSU
- 2002 Established a partnership with Platt Regional Vocational and Technical School to work in the robotics area, School of Engineering and Applied Science, UNH
- 2002 Worked with the Connecticut Department of Higher Education for the selection of the School of Engineering and Applied Science as one of the partners in the Connecticut Partnership for Science and Mathematics Education, UNH

- 2001 Obtained the appointment of the University of New Haven as the only affiliate center in the state of Connecticut of the national organization Project Lead the Way, School of Engineering and Applied Science, UNH
- 2001 Implemented the UNH-SEAS Annual Essay Contest 2002: "Dare to be an Engineer!" School of Engineering and Applied Science, UNH

Academic Experience

- 2013 – Present Professor, Systems Engineering Department, University of Arkansas at Little Rock
- 2005 – 2013 Professor, Industrial and Manufacturing Engineering Department, Wichita State University
- 2001 - 2005 Professor, Industrial Engineering Department
University of New Haven

Teaching of graduate and undergraduate courses. Responsible for coordinating the Executive Master of Science in Engineering Management (EMSEM) Program.

- 1997 - 2001 Professor, Industrial Engineering Department
University of Puerto Rico at Mayagüez

Teaching of graduate and undergraduate courses: Facilities Design, Simulation, Design Capstone Course, COOP Course, Material Handling, Ergonomics, and Industrial Safety. Responsible for the operation of the Ergonomics Laboratory. Involved in research topics including the design of material handling systems and Ergonomics.

- 1992 - 1997 Associate Professor, Industrial Engineering Department
University of Puerto Rico at Mayagüez

Teaching of graduate and undergraduate courses: Simulation, Probability Theory, Design Capstone Course, Material Handling, Facilities Design, Industrial Safety, Ergonomics, Production Planning and Control. Updated the Ergonomics Laboratory. Developed of a Computer Assisted Laboratory for the Facilities Design Course. Involved in research topics including the design of material handling systems from the ergonomic point of view.

- 1991 - 1992 Professor, Industrial Engineering Department
Monterrey Institute of Technology, Querétaro, Mexico

Teaching of graduate and undergraduate courses, such as, Operations Research, Operations Management, Facilities Design, and Production Planning and Control. Responsible for the implementation of an Industry University Collaboration Program.

1988 – 1991 Assistant Professor, Industrial Engineering Department
University of Puerto Rico at Mayagüez

Teaching of graduate and undergraduate courses, such as, Probability Theory, Simulation, Facilities Design, Material Handling, and Production Planning and Control. Involved in research topics including design of manufacturing systems and stochastic processes.

1985 - 1987 Graduate Research Assistant, Material Handling
Research Center, Georgia Institute of Technology

Involved in research topics such as: Just-In-Time Production System and design of centralized Work-in-Process (WIP) storage systems.

1984 –1985 Instructor, Industrial Engineering Department
University of Puerto Rico at Mayagüez

Teaching of graduate and undergraduate courses, such as, Probability Theory, Engineering Economy, and Operations Management.

Selected Funded Proposals

2016– 2019 “Re-imagining the First Year of College.” American Association of State Colleges and Universities (AASCU), January, 2016 (with Brad Patterson, Sherry Rankins-Robertson, Amber Smith as Co-PIs)

2011– 2014 “Kansas Engineering Excellence Project (KEEP).” United States Employment and Training Administration, October, 2011(with The Workforce Alliance of South Central Kansas as PI): \$4.24 MM (my share)

2011– 2014 “Center for Innovation and Enterprise Engagement.” United States Economic Development Administration, Employment and Training Administration and Small Business Administration, September, 2011: \$1.99 MM

2008– 2013 “Strategic Supply-Chain Partnership for Engineering and Technology Programs.” Knight Foundation, September, 2008: \$2 MM

2008 – 2010 “WSU-Industry Data Storage Consortium.” LSI Corporation, August 1, 2007: \$490,000

2007 – 2012 “South Central Kansas WIRED Initiative.” US Department of Labor, PI for College of Engineering: \$5,000,000

2003 – 2008 “Bayer-UNH Alliance for Advancing SEAS to the Next Level of Academic Excellence.” Bayer HealthCare, LLC, April, 2003: \$1,000,000

- 2000 – 2005 “University of Puerto Rico at Mayaguez: Academic Axis for the Technological Corridor.” Puerto Rico Industrial Development Company, June 27, 2000, (with Waded Cruzado-Salas as Co-PI): \$28.8 MM
- 1998 – 1999 “Puerto Rico Experimental Program to Stimulate Competitive Technology.” U.S. Department of Commerce, August 1998, (with Brad R. Weiner as PI): \$850,000
- 1998 “Strengthening the Scientific Dissemination Activities in the College of Engineering.” President’s Office, University of Puerto Rico, July 1998: \$50,000
- 1998 – 2003 “Creation of an Institutional Minority Graduate Education Program at the University of Puerto Rico System.” NSF, (with Manuel Gómez): \$250,000
- 1998 “Ergonomics and Human Factors Engineering Projects-Phase II.” Intel-Puerto Rico, May 1998: \$90,000
- 1998 “Technological Advancements in the Third Millennium and their effects in the University of Puerto Rico System.” President’s Office, University of Puerto Rico: \$15,000
- 1997 “Sound and Luminance Study.” Intel Foundation: \$50,000
- 1996 “Statistics Aided Manufacturing-A Short Course.” Corange International Limited: \$25,000
- 1996 “Ergonomics and Human Factors Engineering Projects.” Intel-Puerto Rico: \$80,000
- 1995 “A Simulation Model for a Packing Line.” Lifescan-Puerto Rico Inc.: \$50,000
- 1995 “Robotics and Process Automation-A Short Course.” Avon Lomalinda: \$30,000
- 1988 “Network of Queues for Modeling and Design of Centralized Material Handling Systems.” NSF: \$50,000
- 1988 “A Decomposition Approach for Designing Manufacturing Systems.” NSF: \$90,000

Selected Publications

Whitman, Lawrence, Reynolds, Karen, and Toro-Ramos, Zulma, "Service Learning in Engineering," *Proceedings of the Midwest Section Conference of the American Society for Engineering Education*, September 2011.

Malzahn, Don, Whitman, Lawrence, Toro-Ramos, Zulma, Saatchi, Bahareh, and Acosta, Julie-Ellen, "The Engineer as Leader: Course Design and Assessment," *Proceedings of the 2011 American Society for Engineering Education Annual Conference*, June 2011.

Malzahn, Don, Whitman, Lawrence, Toro-Ramos, Zulma, and Acosta, Julie-Ellen, "The Engineer as Leader: Course Design," *Proceedings of the Midwest Section Conference of the American Society for Engineering Education*, September 2010.

Lazarin, Ana G., Bergman, Daniel, and Toro-Ramos, Zulma, "Programs to Increase K-12 Interest in STEM Careers," *Proceedings of NAMEPA/WEPAN 2010 Annual Conference*, April 2010.

Whitman, Lawrence, Toro-Ramos, Zulma, Watkins, John, "A Practical Faculty Mentoring Program," *Proceedings of the 2009 Midwest Section Conference of the American Society for Engineering Education*, September 2009.

Whitman, Lawrence, Toro-Ramos, Zulma, Chaparro, Barbara, Hinkle, Veronica, Davidson, Colin, and Wilkinson, Chris, "A Practical Global Design Competition," *Proceedings of the 2009 American Society of Engineering Education Annual Conference*, June 2009.

Nelson, Priscilla, Hunt, Theresa, Traver, Cherrice, Eibeck, Pamela, Toro-Ramos, Zulma, Schrader, Cheryl, Roth, Mary, and Durham, Delcie, "Women Engineers in Advanced Academic Positions (WEAAP)," *Proceedings of the 2009 American Society of Engineering Education Annual Conference*, June 2009.

Whitman, Lawrence, Toro-Ramos, Zulma, Allison, Dan, Davidson, Colin, Shawver Martha, Belles, Shelley, and Wilkinson, Chris, "A Global Design Competition," *Proceedings of the 2008 Midwest Section Conference of the American Society for Engineering Education*, September 2008.

Whitman, Lawrence, Toro-Ramos, Zulma, and Skinner, Steven, "Educating the Engineer of 2020: A Practical Implementation," *Proceedings of the 2007 Midwest Section Conference of the American Society for Engineering Education*, September 2007.

Magnusson, Marianne L., Toro-Ramos, Z.R., and Pope, Malcolm H., "Ergonomic Modification of the Workplace," *Journal Seminars in Spine Surgery*, 1998.

Toro-Ramos, Z.R. and Henrich, M., "Anthropometric Table for the Industrial Puerto Rican Population," *Journal of Computers and Industrial Engineering*, Vol. 33, No.1-2, 1997.

Toro-Ramos, Z. R., "A Decomposition Approach for Designing Manufacturing Systems with Limited Buffers," NSF Final Report, September 1993.

Toro-Ramos, Z.R., Bartolomei, S., and Novoa, C. "Decomposition Approach for the Design of Manufacturing Systems with Centralized Work-In-Process Storage and Limited Buffers," *Proceedings of NSF Design and Manufacturing Systems Conference*, Austin, Texas, January 9-11, 1991.

Toro-Ramos, Z.R., and McGinnis, L.F., "Performance Modeling for a Single Material Handling Device with Random Requests. Pure Blocking," *Progress in Material Handling and Logistics*, Eds. John A. White and Ira W. Pence, Springer-Verlag, Volume 2, 1991.

Toro-Ramos, Z.R. and McGinnis, L.F., "Performance Modeling for a Single Material Handling Device with Random Requests - Blocking with Recourse." *Progress in Material Handling and Logistics*, Eds. John A. White and Ira W. Pence, Springer-Verlag, Volume 2, 1991.

Toro-Ramos, Z.R., Bartolomei, S., and Santamaría, G., "A Decomposition Approach for Designing Manufacturing Systems with Limited Buffers." *Proceedings of NSF Design and Manufacturing Systems Conference*, Tempe, Arizona, January 8-12, 1990.

McGinnis, L.F., Trevino, J., and Toro-Ramos, Z.R., "A Review of the Toyota Production System." *Material Handling Research Center Report 85-01*, Georgia Institute of Technology, Atlanta, Georgia, 1985.

Selected Talks and Presentations

"Access to Higher Education for Immigrants: A Social and Economic Imperative, and a Shared Responsibility," League of United Latin American Citizens (LULAC) Little Rock Chapter Annual Gala Keynote Speech, Little Rock, AR, October 9, 2015.

"Fighting Through Glass Ceilings," Hispanic Law Student Association Annual Banquet Keynote Speech, Little Rock, AR, April 17, 2015.

"Higher Education and the United States' Immigration Reform," Arkansas College Personnel Association's Spring Drive-In, Little Rock, AR, June 2, 2014.

"From Puerto Rico to Little Rock: My Career Path," Arkansas Louis Stokes Alliance for Minority Participation Spring Research Conference Keynote Speech, Little Rock, AR, April 11, 2014.

"Realizing the Greatest Potential of Females in Engineering and Philosophy: A National Imperative," Eastern Society for Women in Philosophy (ESWIP) Annual Conference, Little Rock, AR, April 11, 2014.

"Changing the Conversation," Association of Public and Land-Grant Universities (APLU) Commission on Access, Diversity and Excellence (CADE) Summer Meeting, Seattle, WA, July 25, 2013.

“From Puerto Rico to Wichita: An Unusual Career Path,” WSU Society of Hispanic Professional Engineers Annual Banquet Keynote Speech, Wichita, KS, April 27, 2012.

“University of Puerto Rico at Mayagüez’s (UPRM) Entrance into the 21st Century,” UPRM First Century Celebration Keynote Speech, Mayagüez, PR, September 20, 2011.

“21st Century Engineering Grand Challenges: Role of Urban Serving Universities,” Montana State University Faculty Colloquium, Bozeman, MT, September 9, 2010.

“Process Improvement: An Imperative in Higher Education,” American Society for Quality, Joint Meeting, Wichita, KS, April 15, 2010.

“Engineering Workforce Pipeline,” Innovations in Career Technical Conference, Wichita, KS, February 23, 2010.

“SMET Literacy and Professions: A Key to Social Mobility,” MALCS (Mujeres Activas en Letras y Cambio Social/Women Active in Letters and Social Change) 2009 Summer Institute, Las Cruces, NM, July 22-25, 2009.

“Engineering is for You,” Horace Mann Magnet School, Annual Assembly, Wichita, KS, April 3, 2009.

“The Changing Face of the United States: Our Opportunity, Our Challenge,” WSU Multicultural Academic Achievement Recognition Ceremony Keynote Speech, Wichita, KS, December 3, 2008.

“Cross Sector and Cross Discipline Partnerships: A Required Strategy for Realizing the Full Potential of Women in Engineering,” NJIT Workshop for Women Engineers in Advanced Administrative Positions: Effecting Change in Higher Education, Newark, NJ, January 8, 2008.

“Engineering and Its Relevance,” STEP into Science, Technology and Engineering Professions CAMP, Wichita, KS, June 11, 2007.

“Realizing the Greatest Potential of Females in Engineering: A National Imperative,” Wichita SWE 25th Anniversary Banquet, Wichita, KS, June 8, 2007.

“My Leadership Journey,” Wichita State University Leadershape Institute, Rock Springs, KS, May 22, 2007.

“From Puerto Rico to Wichita: A Career Path Founded on Perseverance,” Boeing Women in Leadership Association, Celebration of Women in History Month, Wichita, KS, March 21, 2007.

“Faculty Evaluation,” Wichita State University Department Chairs’ Meeting, Wichita, KS, March 12, 2007.

“Engineering Versus Engineering Science: What Should We Teach?” National Science Foundation Design, Service and Manufacturing Grantees and Research Conference, St. Louis, MO, July 26, 2006.

“Thirty Years of Creating the Next Generation of Pioneers, 1976-2006,” Thirtieth Reunion of Wallace Scholars, Wichita State University, Wichita, KS, June 24, 2006.

“Challenges of Engineering Education in the 21st Century: Wichita State University College of Engineering Response,” SWE Banquet, Wichita State University, Wichita, KS, April 28, 2006.

“Why Engineering Education is Important to All of Us,” Council of University Women, Wichita State University, Wichita, KS, January 11, 2006.

“Global Learning: A Required Component of Engineering Education in the 21st Century,” Global Learning Conference, Wichita State University, Wichita, KS, November 11, 2005.

“The Role of a Department Chair,” Society of Women Engineers Dean’s Panel, CA, November 5, 2005.

“The Role of International Education in Maintaining U.S. Competitiveness,” KAFSA, Kansas Association of International Educators, Wichita State University, Wichita, KS, October 7, 2005.

“From Dean to Chancellor, From Chancellor to Dean: An Unusual Career Path,” Organization of Women in Higher Education (OWHE), Wichita State University, Wichita, KS, September 21, 2005.

“Women in Leadership,” West Haven Chamber of Commerce and Hamden Chamber of Commerce Educational Breakfast Series, West Haven, CT, September 23, 2004.

“Dealing with Unexpected Standards: How to Become a Latino Leader,” Promoting Hispanic Graduate Education & Professional Development, Manchester, CT, December 7, 2002.

“The Role of the Latino Community in the Selection of College and University Leaders,” Standardized Expectations or Unexpected Standards? Professional Development Advancement and the Dilemma for Latino Leaders in the Academy, Tempe, AZ, September 26-28, 2002.

“Follow the Leader,” IIE Solutions, July, 2002.

“Women in Engineering,” UNH Lecture Series, West Haven, CT, February 13, 2002.

“Spotlight on Excellence: New Leaders in Higher Education,” The Connecticut Association of Latin Americans in Higher Education Newsletter, Spring 2002.

“Dean Encourages Women to Explore Engineering,” Woman Magazine, Norwalk, CT, December 2001.

“UNH Dean, Technology Chief Agree to Engineer Shortage Alliance,” The Independent Voice, Quarterly Newsletter, Volume 1, December 2001.

“A Critical Shortage of Engineers,” CT Business Magazine, December 2001.

UNH Dean, Council President Call for Response to Shortage of Engineers, New Haven Business Times, November 2001.

“Engineering Today: A Call for Action,” Connecticut Technology Council Breakfast, West Haven, CT, October 30, 2001.

“On Becoming the First Woman Chancellor at University of Puerto Rico – Mayagüez,” Women’s Engineering Leadership Conference, Denver, CO, October 10-13, 2000.

“The University of Puerto Rico at Mayagüez: the Best Alternative for Higher Education in Science and Technology”, Hispanic Serving Institutions Summit, Washington, DC, September 12-14, 2000; and Chancellors’ Meeting, Dominican Republic, Sept. 4, 2000.

“Reflections Regarding the College of Agricultural Sciences: Challenges of the New Millennium,” General Ordinary Assembly, College of Agronomists of Puerto Rico, San Juan, PR, August 19, 2000.

“The University of Puerto Rico at Mayagüez and the Implementation of a Technological Corridor”, Puerto Rico’s Secretary of Economic Development and Commerce Meeting, San Juan, PR, March 13, 2000.

“General Education: Its Relevance for Graduate Studies,” University System Encounter on General Education, University College of Cayey, PR, February 18, 2000.

“Successful Preparation of Minority MSE Doctoral Degree Recipients,” Quality Education for Minorities Network, Ninth Annual National Conference, Washington, DC, February 11-13, 2000.

“Technology and Teaching: New Learning Tools.” First Congress on Education for the Eastern Area, Puerto Rico Interamerican University, Fajardo, PR, February 4, 2000.

“The Contribution of the University Puerto Rico at Mayagüez,” Initiatives to Foster Entrepreneurship in Puerto Rico’s Universities, Puerto Rico Interamerican University, Bayamón, PR, January 28, 2000.

“University of Puerto Rico at Mayagüez: its Critical Role for the Implementation of a Technological Corridor,” Senate of Puerto Rico, San Juan, PR, December 21, 1999.

“Rethinking Undergraduate Education,” San Juan, PR, November 30, 1999.

“Challenges for Women in the New Millennium,” Ponce, PR, October 13, 1999.

“Education: A Permanent Value in a Changing World,” Advisory Council, College Entrance Examination Board, San Juan, PR, October 6-7, 1999.

“Business Strategies for the Western Part of Puerto Rico,” Southwestern Industrial Association Annual Conference, Dorado, PR, August 28, 1999.

“Why Are They Still Here? Findings from a Preliminary Study of Hispanic Undergraduate Women in Engineering,” ASEE Conference, Charlotte, NC, June 23, 1999; and WEAPAN Annual National Conference, San Antonio, TX, June 5-8, 1999 (With Elsa Villa and Lueny Morell).

“Making the 7th Largest School of Engineering in the Nation Competitive in Research: Integrating Research and the Learning Experience,” National Research Council Site Visit, San Juan, PR, October, 1998.

Ergonomics: a Tool for Increasing Productivity,” Universidad de los Andes, Bogotá, Colombia, August 1998.

“Storage Policies and Design,” II National Congress on Competitive Logistics, University of Lima, Lima Perú, November, 1997.

“Selection of Material Handling Equipment,” II National Congress on Competitive Logistics, University of Lima, Perú, November 6, 1997.

“Ergonomics for Quality of Life,” HP-IJBU, Aguadilla, PR, September 1997.

“What is Ergonomics?” Echlin-Ponce, Inc., Ponce, PR, September, 1997.

“A Proposal to Strengthen Competitiveness,” I Forum on Competitiveness, Río Grande, PR, August 15, 1997.

“An Analytic Approach for Teaching Facilities Design,” University of Lima, Perú, May 23, 1997.

“Governor’s Award to Quality in Public Service,” University of Puerto Rico Central Administration, San Juan, PR, April 4, 1997.

“Anthropometric Table for the Industrial Puerto Rican Population,” 21st International Conference on Computers and Industrial Engineering, San Juan, PR, March 9-12, 1997.

“Women in Engineering,” Colloquium Woman and Work: Challenges in the New Millennium, Caribe Hilton, San Juan, PR, March 7, 1997.

“New Paths: Women in Manufacturing,” University of Puerto Rico-Aguadilla, PR, May 2, 1996.

“Ethics in Industrial Engineering,” ASQC Student Chapter, University of Puerto Rico at Mayagüez, PR, May 4, 1995.

“Reengineering: A First Glance,” Third Symposium on Production Management, Sheraton Hotel, Santo Domingo, Dominican Republic, October 2, 1994.

“Important Steps to Implementing an Effective Quality System,” Third Symposium on Production Management, Sheraton Hotel, Santo Domingo, Dominican Republic, October 2, 1994.

“Quality Management and Human Factors,” Warner Lambert, Dorado, PR, October 1, 1994.

“Statistical Process Control,” Telular, Inc., Caguas, PR, September 1994.

“Quality and Productivity Simultaneous Improvement: First Step for World Class Manufacturing,” ASQC Puerto Rico Chapter, Mayagüez, PR, August 1990.

“Queuing Network Model for an Assembly Line Manufacturing System,” Material Handling Research Center Spring Monitors Meeting, Atlanta, GA, May 1990.

“Queuing Network Analysis of Material Handling Systems,” Material Handling Research Center, Monitors Meeting, Atlanta, GA, November 1989.

“Simulation: A Tool for the Design and Control of Manufacturing Processes,” Baxter Fenwall Division, Mayagüez, PR, May 1989.

“SPC and JIT or JIT and SPC,” College of Engineers and Surveyors of Puerto Rico Mayagüez Chapter, Mayagüez, PR, February 1989.

“A Decomposition Approach for Designing Microload AS/R Systems,” Material Handling Research Center, Monitors Meeting, Atlanta, GA, November 1987.

“Product Form Solutions for Queuing Network Models for Material Handling Systems,” ORSA/TIMS Meeting, St. Louis, MO, Fall 1987.

“A Network of Queues Model for a Manufacturing System,” Material Handling Research Center Spring Monitors Meeting, Atlanta, GA, May 1987.

“Buffer Sizing for Centralized WIP Storage Systems,” Material Handling Research Center Fall Monitors Meeting, Atlanta, GA, November 1986.

M.S. Students Supervised and Assisted

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| 2004 | Thesis Advisor, Azucena Mudén, “Strategies for Keeping the Manufacturing Industry in Connecticut.” |
| 2004 | Thesis Advisor, Hermit Vega, “What Type of Product Diversification Will Keep the Manufacturing Industry in Connecticut?” |
| 2003 | Research Project Advisor, Bonnie Garrett, “Project Management Process Model Applied to the Navy F100-PW-220 Fleet Management Program.” |
| 2002 | Research Project Advisor, Judith LeBlanc, “Constraints A Company Faces When a Change in the Corporate Culture is Required.” |
| 2000 | Thesis Advisor, Lourdes del Valle, “A Regression Model to Predict Ergonomic Risk in the Office Environment.” |
| 2000 | Thesis Advisor, Dany Villafuertes, “A Framework to Implement a Personnel’s Rotation Program in Computer Cards Assembly Lines.” |

- 1997 Thesis Advisor, C. Galdos, "Ergonomic Analysis of Material Handling in the Production Floor."
- 1997 Thesis Advisor, M. Vargas, "A Simulation Model for the Design of a Packaging Line."
- 1997 Thesis Committee Member, H. Celiz, "Implementation of a TQM Program in the Department of Chemistry."
- 1996 Thesis Advisor, M. Henrich, "Ergonomic Analysis of Material Handling in Warehouses."
- 1996 Thesis Committee Member, Z. Luciano, "Design of a Methodology for Programming a Flexible Automated Manufacturing Line."
- 1994 Thesis Committee Member, H. Ortiz, "Analysis of the Importance of Production Sequences in Series Processing Systems."
- 1991 Thesis Advisor, G. Santamaría, "A Decomposition Approach for Designing Manufacturing Systems with Limited Input and Output Buffers."
- 1991 Thesis Advisor, H. Veras, "A Simulation for Manufacturing Systems with Centralized Work-In-Process Storage."
- 1991 Thesis Advisor, C. Novoa, "Decomposition Approach for the Evaluation of Manufacturing Systems with Centralized Work-In-Process Storage."
- 1990 Thesis Advisor, M. del R. Hernández, "An Analytical Model for Designing Material Handling Systems to Support Assembly Lines."
- 1990 Thesis Committee Member, A. Cedeño, "Simulation of Arrival and Departure Car Traffic Lanes Needs of the Luis Muñoz Marín International Airport."
- 1990 Thesis Committee Member, J.V. Rodríguez, "An Implementation of the Karmarkar Algorithm for Linear Programming."
- 1990 Thesis Committee Graduate Studies Representative, M. Farah, "SITRANS: Integrated Systems to Support Traffic Engineering."

Industrial Experience

- 1998 Consultant, Ergonomic evaluation of manufacturing and packaging areas, IPR Pharmaceuticals, Inc., Carolina, Puerto Rico.
- 1997 – 1998 Consultant. Design and implementation of an ergonomics program for production area, Storaetex de Puerto Rico, Inc., Ponce, Puerto Rico.

- 1997 Consultant. Design and implementation of an ergonomics program for the administrative area, IPR Pharmaceuticals, Inc., Carolina and Guayama, Puerto Rico.
- 1996 Consultant. Development of a plant layout for a new building, Sanz Convair Jumbo, Inc. Cabo Rojo, Puerto Rico.
- 1996 Consultant. Design and implementation of productivity improvement and cost reduction programs, Star Tours, Inc., San Juan, Puerto Rico.
- 1996 Consultant. Design and development of a simulation tool for plant capacity, Lifescan P.R., Inc. Cabo Rojo, Puerto Rico.
- 1992 Consultant. Redesign of raw material warehouse, Condumex, S.A., Querétaro, Mexico.
- 1989 Consultant. Implementation of productivity improvement programs for Production Planning and Control, Facilities Planning and Design, and Material Handling related activities, Digital Equipment, Puerto Rico.
- 1984 Consultant. Design, development and direction of the Total Quality Program, Hewlett Packard, Puerto Rico.
- 1984 Consultant. Implementation of productivity improvement and cost reduction programs for credit cards and loan processing activities, Citibank, N.A., Puerto Rico and Mexico.
- 1982 – 1983 Systems Engineer, Economic Analysis and Quality Control Support of Switching Control Center Systems, Bell Laboratories, West Long Branch, New Jersey.
- 1982 Executive Trainee of Corporate Services Management Productivity Group. Leading of the productivity and cost reduction program in different corporate branches, Citibank, N.A., Corporate Group, Puerto Rico.
- 1981 Assistant Industrial Engineer. Design and implementation of a new plant layout, work centers and methods; Development of training programs, work standards and productivity measures, Health-Tex, Cabo Rojo, Puerto Rico.

Honors and Awards

- 2011 Selected Among the State of Kansas Top 150 Scientists, Ad Astra Kansas
- 2009 Engineers Who Make a Difference, Institute of Industrial Engineers
- 2008 One of the 10 to Watch in 2009, Wichita Eagle, Wichita, Kansas
- 2005 Pfizer-New Alliance Bank Academic Innovation and Leadership Award, Connecticut Technology Council, Cromwell, Connecticut

- 2003 Mentor Program Scholarship Breakfast Honoree, ACE Mentor Program of Connecticut, Inc., New Haven, Connecticut
- 2000 Pioneer Award, Hispanic Engineer National Achievement Awards Conference, El Paso, Texas
- 2000 Quality Award, The American Society for Quality Control, Puerto Rico Section
- 2000 Dedication of the First Agricultural Millennium Fair, Cayey, Puerto Rico
- 2000 Honored by Club Caborrojeño, Guaynabo, Puerto Rico
- 2000 Leadership Award, Elizabeth Arden Corporation, San Juan, Puerto Rico
- 1999-2000 Honorary Member, Golden Key National Honor Society
- 1999 Honored by Cabo Rojo's City Hall, Cabo Rojo, Puerto Rico
- 1999 Outstanding Industrial Engineer, Institute of Industrial Engineers, Puerto Rico Chapter
- 1995 Outstanding Professor 1995, Alpha Delta Kappa, Mayagüez, Puerto Rico
- 1990 Guest Speaker, Colloquium on Material Handling Research, Kentucky, Ohio
- 1989-90 Distinguished Industrial Engineer Award, IIE Chapter No. 236
- 1989-91 Baxter Endowed Chair in Manufacturing Engineering Recipient
- 1988 Ph.D. Dissertation Wunsch Award Recipient, Georgia Institute of Technology
- 1985-87 University of Puerto Rico President Scholarship Recipient
- 1984-85 Computer Integrated Manufacturing Systems Fellowship
- 1982-83 Bell Laboratories Scholarship Recipient
- 1982 Magna Cum Laude, Class of 1982, University of Puerto Rico at Mayagüez

Professional and Community Activities

- 2016-Present Member, Advisory Committee for Study of In-State Tuition for Undocumented Immigrants in Arkansas, Winthrop Rockefeller Foundation, Little Rock, AR
- 2015-Present Member, College Readiness Task Force, Arkansas Department of Higher Education, Little Rock, AR
- 2015-Present Member, Board of Directors, The Venture Center, Little Rock, AR

- 2015-Present Member, Rotary Club of Little Rock
- 2011-2013 Member, Core Team of Policy Academy on “Making” our Future: Encouraging Growth Opportunities in Manufacturing through Innovation, Entrepreneurship and Investment, State of Kansas Department of Commerce, Topeka, KS
- 2011-2013 Member, Public Policy Committee, American Society Engineering for Education (ASEE) Engineering Deans Council, Washington, DC
- 2009-2013 Member, Board of Advisors, WSU Center for Community Support and Research, Wichita, KS
- 2009-2010 Member, Technical Magnet High School Task Force, USD 259 School District, Wichita, KS
- 2008-2013 Member, Board of Directors, Kansas Hispanic Foundation, Wichita, KS
- 2008-2013 Member, Board of Advisors, Knight Foundation, Wichita, KS
- 2007-2013 Member, Board of Advisors, WSU Center for Entrepreneurship, Wichita, KS
- 2007-2010 Member, Board of Directors, Exploration Place, Wichita, KS
- 2007 Chair, 2007 Midwest Section Conference of the American Society of Engineering Education (ASEE), Wichita, KS, September 19-22, 2007
- 2006 Member, ADVANCE Site Visiting Team, University of Texas-El Paso
- 2006-2009 Member, Rotary Club of Wichita
- 2004 Member, Connecticut Academy of Science and Engineering – CT Medal of Technology Selection Committee
- 2003-2007 Member, Technology Transfer/Commercialization Advisory Board to CT Governor’s Council on Economic Competitiveness and Technology
- 2003 Reviewer, CAREER Panel in Manufacturing Enterprise, Engineering Directorate, National Science Foundation (NSF)
- 2003 Panelist, Planning Grants for the Department-Level Reform, Engineering Directorates for Engineering and Education and Human Resources, NSF
- 2003 Member, Mentoring and Advisory Panel, EPA National Council for Science and the Environment/ Office of Research and Development, Washington, DC
- 2003-2011 Member, Gender Equity Advisory Board to Northeastern University, Boston, MA
- 2002 Member, Committee of Visitors for NSF Office of International Science and Engineering

- 2001-2007 Member, Georgia Institute of Technology President Advisory Board
- 2000 Member, Commission on the Rural/Regional Agenda, American Association of State Colleges and Universities
- 2000 Member, Board of Directors, Communications and Information Technology Alliance, Puerto Rico Industrial Development Company
- Aug 2000 Panelist, ADVANCE 2000 Workshop, NSF
- 1999 – 2001 Member, Board of Directors, Perea Hospital, Inc., Mayagüez, Puerto Rico
- 1998 - 2000 Evaluator, Governor's Award for Excellence in Schools in Puerto Rico Public Education System
- Summer 1997 Visiting Professor, Monterrey Institute of Technology, Querétaro, Mexico
- May 1997 Visiting Professor, Universidad de Lima, Lima, Perú
- 1996 – 1997 Advisor, Development and Implementation of a Master's Degree Program in Industrial Engineering at the University of Lima, Perú
- 1996 – 1998 Proposal's Reviewer for the Production Systems Program, NSF
- 1996 – 2000 Evaluation Panel Member, Physical Sciences, Math & Engineering, Ford Foundation Postdoctoral Fellowship for Minorities Program
- 1996 Instructor, Professional Engineering License Review Courses, San Juan, Puerto Rico
- 1995 – 2000 Evaluator, Governor's Quality Award, San Juan, Puerto Rico
- 1993 - 2000 Evaluator, Industrial Excellence Award Puerto Rico 2000
- 1989 - 1991 Proposal Reviewer, Design Theory and Methodology, Operations Research/Production Systems, and Computer Engineering Program, NSF
- 1989 – 1990 Instructor, Professional Engineering License Review Courses, Mayagüez, Puerto Rico
- 1990 Academic Coordinator, ASQC Quality Engineering, Ponce, Puerto Rico
- 1990 Steering Committee Member, Unattended Processes in Pharmaceutical Manufacturing, INDUNIV Research Center, Dorado, Puerto Rico
- 1990 – 1991 Chairperson, Education Committee, ASQC Puerto Rico Chapter

Participation in Administration, Teaching, and Research Improvement Programs

“Reimagining the First Year of College Innovation Summit,” American Association of State Colleges and Universities (AASCU), Orlando, FL, June 22-24 2016

“Equity and Social Justice, Higher Education Leadership, Innovation, and Leadership in a Changing World,” American Council on Education (ACE) 98th Annual Meeting, San Francisco, CA, March 12-15, 2016

“Improving Student Success: Policies, Programs, and Practices,” AASCU 2016 Academic Affairs Winter Meeting Annual, Austin, TX, February 4-6, 2016

“Association of Public and Land-Grant Universities 2015 Annual Meeting,” Indianapolis, IN, November 15-17, 2015

“Promises to Keep,” ACE 97th Annual Meeting, Washington, DC, March 14-17, 2015

“Innovation U 2.0,” Southern Governors’ Association Conference, Research Triangle Park, NC, June 24-25, 2014

“Seizing Opportunity,” ACE 96th Annual Meeting, San Diego, CA, March 8-11, 2014

“Myths, Assumptions, and Realities: Creating New Narratives,” AASCU 2014 Academic Affairs Winter Meeting Annual, Coronado, CA, February 6-8, 2014

“Association of Public and Land-Grant Universities 2013 Annual Meeting,” Washington, DC, November 10-12, 2013

“Leading Change,” ACE 95th Annual Meeting, Washington, DC, March 2-5, 2013

“Association of Public and Land-Grant Universities 2012 Annual Meeting,” Denver, CO, November 11-13, 2012

“Securing the Future with Multi-Campus Systems & Distance Education,” First Annual Innovative Strategies Summit, Park City, UT, June 13-15, 2012

“Policy Academy on “Making” our Future: Encouraging Growth Opportunities in Manufacturing through Innovation Entrepreneurship and Investment,” National Association of Governors, Chicago, IL, March 7-9, 2012

“Engineering in a Changing Economic Landscape,” American Society of Engineering Education (ASEE) Engineering Deans Council Public Policy Colloquium, Washington, DC, February 7-8, 2012

“University Startups Produce High-Value Jobs and Serious Social Impact,” National Council of Entrepreneurial Tech Transfer (NCET2) 6th Annual University Startup Conference, Washington, DC, January 18-20, 2012

“Association of Public and Land-Grant Universities 2011 Annual Meeting,” San Francisco, CA, November 13-15, 2011

“Engineering Empowering Society,” ASEE Engineering Deans Institute, Palm Springs, CA, April 10-13, 2011

“Reaching Higher,” ACE 93rd Annual Meeting, Washington, DC, March 5-8, 2011

“Engineering and Job Creation,” ASEE Engineering Deans Council Public Policy Colloquium, Washington, DC, February 8-9, 2011

“Getting Started with Problem-Based Learning,” Faculty Workshop, Dr. Michael Prince, Wichita State University College of Engineering, Wichita, KS, September 20, 2010

“The Educational Imperatives of the Grand Challenges,” National Academy of Engineering Grand Challenge Summit, Needham, MA, April 22, 2010

“Rising Above the Economic Storm,” ASEE Engineering Deans Institute, St. Petersburg, FL, April 11-14, 2010

“Border as Mirror: Negotiating the View from Here,” MALCS (Mujeres Activas en Letras y Cambio Social/Women Active in Letters and Social Change) 2009 Summer Institute, Las Cruces, NM, July 22-25, 2009

“Incorporating Diversity and Globalization in Engineering Education,” 2009 ASEE Annual Conference, Austin, TX, June 14-17, 2009

“Engineering Education in the 21st Century,” ASEE Engineering Deans Institute, Boston, MA, March 22-25, 2009

“Engineering CHANGE,” ASEE Engineering Deans Council Public Policy Colloquium, Washington, DC, February 16-18, 2009

“Association of Public and Land-Grant Universities 2008 Annual Meeting,” Chicago, IL, November 9-11, 2008

“Advance Kansas, Program in Diversity Leadership,” Urban League of Kansas, Wichita, KS, January-May, 2008

“Strategic University-Industry Partnerships for Innovation,” ASEE Engineering Deans Institute, La Jolla, CA, March 30-April 2, 2008

“Engineering Solutions for the 21st Century,” ASEE Engineering Deans Council Public Policy Colloquium, Washington, DC, February 26-27, 2008

“Student Rating Forms: Their Design, Construction and Use,” Faculty Workshop, Dr. Raoul A. Arreola, Wichita State University College of Engineering, Wichita, KS, February 22, 2008

“NJIT Workshop for Women Engineers in Advanced Administrative Positions: Effecting Change in Higher Education,” Newark, NJ, (NSF Sponsored), January 7-9, 2008

“Championing Hispanic Higher Education Success: A National Imperative,” Hispanic Association of Colleges and Universities (HACU) 21st Annual Conference, Chicago, IL, October 20-22, 2007

“US Department of Labor/Employment & Training Administration-Interagency Aerospace Revitalization Task Force Roundtable,” Arlington, VA, October 18, 2007

“Educating the 21st Century Engineer,” 2007 ASEE Midwest Section Conference, Wichita, KS, September 19-21, 2007

“Among Women, Between Nations,” MALCS (Mujeres Activas en Letras y Cambio Social/Women Active in Letters and Social Change) 2007 Summer Institute, St. Paul, MN, August 2-4, 2007

“2007 Accreditation Board for Engineering and Technology (ABET)/Engineering Accreditation Commission (EAC) Institutional Representatives’ Day,” Arlington, VA, July 20, 2007

“Riding the Wave to Excellence in Engineering Education,” ASEE Annual Conference, Honolulu, HI, June 24-27, 2007

“Diversity in Engineering,” ASEE Engineering Deans Institute, San Juan, PR, April 15-18, 2007

“Engineering Colleges: Critical for America’s Future,” ASEE Engineering Deans Council Public Policy Colloquium, Washington, DC, February 14-15, 2007

“First Consortium on Science, Math and in Engineering,” Federal Aviation Administration, Washington, DC, January 29, 2007

“First Hispanic Deans Meeting,” National Science Foundation, Dallas, TX, January 19, 2007

“Making Our Mark, Making a Difference,” The Third Summit for Women of Color Administrators in Higher Education, Long Beach, CA, November 6-8, 2006

“Advancing Scholarship in Engineering Education,” ASEE Annual Conference, Chicago, IL, June 18-21, 2006

“Engineering Leadership in American Society,” ASEE 2006 Engineering Deans Institute, San Francisco, CA, March 26-28, 2006

“Building Community Leadership,” Wichita Metro Chamber of Commerce 2006 Wichita Insight, Wichita, KS, February 16- April 25, 2006

“Engineering Colleges in Service to America,” 2006 Engineering Deans Council Public Policy Colloquium (PPC), Washington, D.C., February 14-15, 2006

“Women Engineers Leading Global Diversity,” Society of Women Engineers National Conference, Anaheim, CA, November 3-4, 2005

Women in Engineering Leadership Institute’s Advancement Leadership Conference, Syracuse, NY, (NSF supported), October 7-10, 2004

“Recruiting and Retaining Engineers for the 21st Century,” 40th ASEE Midwest Section Annual Conference, University of Arkansas, Fayetteville, AR, September 14-16, 2005

SWE Leadership Advancement Conference, Phoenix, AZ, August 5, 2004

New England Deans’ Meeting, New Castle, NH, July 21-22, 2003

11th Annual Symposium on Corporate Responsibility, Hispanic Association on Corporate Responsibility, Chicago, IL, June 30 & July 1, 2003

Reforming Engineering Education: A Workshop, UNH School of Engineering and Applied Science, Madison, CT, March 10, 2003

Engineering’s Role in the National Agenda, American Society for Engineering Education Deans Council Public Policy Colloquium, Washington, D.C., February 11-12, 2003

The Science and Technology Policy of the Bush Administration, American Society for Engineering Education Deans Council Public Policy Colloquium, Washington, DC., February 12-13, 2002

New Presidents’ Academy, AASCU, Boulder, CO, August 2000

6th Academic Planning Workshop, University of Puerto Rico, Ponce, Puerto Rico, August 2000

Annual Summer Meeting, National Association of State Universities and Land-Grant Colleges, Commission on International Affairs, OR, July 26-30, 2000

Entrepreneurial Leadership Development Institute for Academic Deans, Directors & Administrators at the University of Puerto Rico Mayagüez Campus, Mayagüez, PR, June 29-30, 2000

EPSCoR Annual Meeting, Fajardo, PR, May 26-28, 2000

IT in the 21st Century-A Growth Engine for the Maritime Industry, International IT Conferences, Singapore, May 16-17, 2000

13th Annual Conference Championing Hispanic Success in Higher Education, FL, October 29-November 2, 1999

5th Academic Planning Workshop, University of Puerto Rico, Mayagüez, PR, August 1999

Moving Beyond Individual Programs to Systemic Change, Women in Engineering Programs & Advocates Network Conference, San Antonio, TX June 5-8, 1999

EPSCoR Annual Meeting, Ponce, PR, May 1, 1999

Best Assessment Symposium in Engineering Education II, Rose-Hulman Institute of Technology, Terre Haute, IN, October 14-18, 1998

Financial Ideas Exchange Day, Andersen Consulting, New York City, NY, September 17-18, 1998

1998 Summer Meeting of the Engineering Accreditation Commission-Dean's Day Information, Baltimore, MD, July 15-17, 1998

Technology Implementation Workshop, Wake Forest University, NC, June 9-10, 1998

U.S.-Mexico Joint Workshop on Research and Educational Opportunities in Manufacturing, El Paso, TX, October 17-18, 1997

21st International Conference on Computers and Industrial Engineering, March 9-12, 1997, San Juan, PR, March, 9-12, 1997

47th International Industrial Engineering Conference & 5th Industrial Engineering Research Conference, Minneapolis, MN, May 18-22, 1996

Teaching Effectiveness Workshop,” Dr. Richard M. Felder, Mayagüez Hilton, Mayagüez, PR, January 3-4, 1996

Second Seminar/Workshop on Total Quality, Drs. Merbil González, Jorge González Monclova y José R. Deliz, Mayagüez Hilton, Mayagüez, PR, November 1, 1995

Seminar/Workshop on Strategic Planning, Dr. Ramón Claudio, University of Puerto Rico, Mayagüez, PR, December 18, 1995

Seminar/Workshop on Communication and Effective Meetings, Dr. Ramón Claudio, University of Puerto Rico, Mayagüez, PR, December 4, 1995

Team Work Workshop, Dr. Ramón Claudio, University of Puerto Rico, Mayagüez, PR, November 20, 1995

Assessment of Institutional Effectiveness and Student Learning Outcomes, Dr. Jeffrey A. Seybert, University of Puerto Rico, Mayagüez, PR, October 19, 1995

Leadership and Academic Administration Training for Department Directors, Dr. Ramón Claudio, University of Puerto Rico, Mayagüez, PR, July 28-29, 1995

46th International Industrial Engineering Conference & 4th Industrial Engineering Research Conference, Nashville, TN, May 21-25, 1995

Factory Programs Training, Ames, IA, January 25-26, 1995

Re-engineering the Organization, Mayagüez, PR, March 3, 1994

National Science Foundation (NSF) Design and Manufacturing Systems Grantees Conference, Austin, TX, January 9-11, 1991

NSF Design and Manufacturing Systems Grantees Conference, Tempe, AZ, Jan 8-12, 1990

Unattended Processes in Pharmaceutical Manufacturing Symposium, Dorado, PR, October 18-19, 1990

Society for Integrated Manufacturing Conference, Atlanta, GA, November 12-15, 1989

Seminar on Automated Material Handling, lectured by Dr. Leon F. McGinnis, University of Puerto Rico, Mayagüez, PR, August 22-24, 1989

ORSA/TIMS Joint National Meeting, St. Louis, MO, October 25-28, 1987

Production Measurement and Improvement Strategies and Techniques, lectured by Dr. D. Scott Sink, San Juan, PR, June 1994

Special Projects

Feb – Dec 2008	Spirit AeroSystems Global Design Challenge, Wichita, KS
Jan – May 1996	Ergonomic Design of Medical Instrumentation, Mayagüez, PR
Dec 1995 – Jan 1996	Ergonomic Evaluation of Production Operations, Erie Scientific, Aguadilla, PR
Nov 1995 – Jan 1995	Ergonomic Evaluation of Production Operations, Frederick Lee, Mayagüez, PR
Sep 1995 – Dec 1996	Ergonomic Evaluation of Warehousing, Packaging Operations, SKB, Cidra, PR
1988	Capacity Requirement Analysis for an Automated Material Handling System, Baxter Bentley of Puerto Rico, Añasco, PR
1984	Procedure to Analyze Microload AS/R Systems, Georgia Institute of Technology, Atlanta, GA
1985	Design and Implementation of an Advisory Interactive System to Aid in the Process of User Interface Development, Georgia Institute of Technology, Atlanta, GA
1983	An Analytical Model for a Construction Project using Operations Management Techniques, University of Michigan, Ann Arbor, MI

- 1983 Research Training Techniques and the Effect of the Industrial Environment in the Learning Process, University of Michigan, Ann Arbor, MI
- 1981 Design of the Breaker Manufacturing Plant Facility Layout, GTE Sylvania, Canóvanas, PR
- 1981 Applied Data Analysis for the College of Engineers and Surveyors of Puerto Rico, Industrial Engineering Department, University of Puerto Rico, Mayagüez, PR
- 1980 Design of Work Stations and Work Methods, Health-Tex, Cabo Rojo, PR
- 1980 Noise Level Analysis, Sanz Convair Jumbo, Inc., Cabo Rojo, PR

Scientific and Professional Societies

Tau Beta Pi, Member

Alpha Phi Mu, Member

American Society for Engineering Education (ASEE), Member

American Society of Quality Control (ASQC), 1994 Board of Directors

Golden Key National Honor Society, Honorary Member

Institute of Industrial Engineers (IIE), 1995-1997 Board of Directors, Chapter No. 236