

# Los Angeles Section

*Monthly: Est. 1913*

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SOUTHERN SAN\_JOAQUIN / METROPOLITAN LOS ANGELES

## PRESIDENT'S MESSAGE

Kenneth H. Rosenfield, P.E., F.ASCE  
Los Angeles Section President

VOL. XLXVII NO. 12

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## Help Wanted



Happy New Year! The beginning of a new calendar year offers an opportunity for a fresh start and personal goal setting. I have not been a big fan of "new year's resolutions" but I know that my professional success could not have occurred without the setting of both short and long term goals and working to complete them. This approach should also be appropriate and work for personal growth and I encourage you to set goals to improve yourself and, as well, to improve your professional capabilities. There is somewhat of an art to goal setting. Goals should stretch you to make progress but still be attainable. Goals that are too easy to reach have little utility and goals that cannot be met just lead to frustration. Try a few goals this year and perform a self-assessment of the difficulty in reaching the goal and use that information to set new goals. You do not have to wait for next year to set new goals, start any time and improve yourself along the way! I have had a long term goal to become fluent in a foreign language and this goal has been elusive. Nonetheless, I keep it as something to strive for as one day I look forward to having the time to devote to this effort. In the short term, I plan to improve my efforts to help my staff grow in their capacities by recognizing and commenting upon their good work more frequently and offering suggestions to improve their work where needed. I think, too often, we take our employees work for granted; not that it is not appreciated, just that it is not recognized enough. A simple comment to an employee telling them that they wrote a good letter, handled a client issue well or completed an assignment ahead of schedule can go a long way in helping that employee feel appreciated. This often results in an improved attitude in the working environment. And, a positive attitude pays off in higher work productivity which then helps the organization meet its goals. It's a "win – win" result.

The New Year is also the time to renew your ASCE dues, please act today to make that payment! Keeping your dues current is the best way for us to stay in touch with you and for you to keep pace with your profession. Your dues, among many other benefits, keep you in contact with international, national and local trends in Civil Engineering. Your local Branch is the key to your participation in ASCE. The dues statement includes the overall Society fees and a small contribution to the Los Angeles Section. It is through this latter contribution that the seven Branches and five Younger Member Forums in the Los Angeles Section are able to function and continue to provide you with excellent monthly programs, active contact with students of all ages, professional reference materials, technical seminars and legislative tracking and advocacy. Our operating income is derived in large part from the Los Angeles Section dues. These dues are then re-distributed to all of the Branches and YMF's in this Section. Your contribution returns to you in many ways as it is used to enhance the local ASCE services. Please take a few minutes today to complete and return your dues payment to the Society.

Your help is wanted. This is my personal request to you to volunteer to join Section or Branch Committees and to also take a leadership role in a very important Committee

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## Life Member Involvement Webinar Held

by Jacquelyn Simon/Jay Higgins



Life Member  
Involvement in  
Section and

Branches was the focus of an early November webinar presented by the Member Communities Committee. Designed to highlight activities that are currently taking place throughout the Society and to establish a network of Life Member champions, featured speakers included JAY HIGGINS, P.E., F.ASCE – Member Communities Committee, Region 9 Director (webinar facilitator), JOE BULEY, P.E., F.ASCE – Los Angeles/Metropolitan L.A. Branch, DREW COHN, P.E., M.ASCE – Tennessee/West Tennessee Branch, and TIM MURPHY, P.E., M.ASCE – San Diego Section.

Why shine a spotlight on these dedicated ASCE members? To help gain recognition for the 20,000 Life Members who can offer their local Section or Branches both the wealth of knowledge they've accumulated throughout their careers and their availability as role models dedicated to advancing our Society. is available. A Life Member Involvement brochure is available from ASCE, which highlights some suggested activities for Life Members.

Help spread the word by discovering a Life Member in your area and inviting them to speak at your next Section/Branch meeting. You'll be glad you did!

If you are interested in being a Life Member Champion or further information about Life Member Involvement, please contact Jackie Simon, 703 295-6143 or jsimon@asce.org

ARTICLE

## Become a Disaster Service Worker

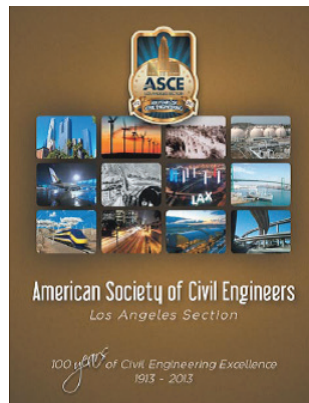


Safety Assessment Program classes are being organized for Volunteers to help in the event of a major disaster under the auspicious of the State of California Emergency Management Agency (CalEMA).

Qualified individuals are California Registered Civil, Structural, Geotechnical, Engineers and Certified Engineering Geologists or Architects.

There is no charge for a class. The class lasts 4 or 5 Hours. To register and schedule a training class, please send me your name, address, telephone number and email. If your firm would like to offer your facilities for a class for 10 to 20 people, please advise. Thank you for your support. Jack Rolston, Chair, Disaster Preparedness Committee. ascedisaster@earthlink.net

## ASCE Los Angeles Section's Centennial Commemorative Book



The ASCE Los Angeles Section is pleased to announce the publication of the ASCE Los Angeles Section's Centennial Commemorative Book. This unique book displays remarkable photo highlights of the past year's Centennial events along with descriptions of infrastructure sectors in the Section, a Section Timeline, Civil Engineering Landmarks that are a part of our history and heritage and profiles of civil engineering leaders who

supported ASCE and civil engineering in the Los Angeles section area over the last 100 years. This beautiful publication is an 8 1/2" x 11" soft cover book loaded with high quality photos and articles perfect as a table top display or keepsake for years to come. For a limited time, while supplies last, and for a small donation of \$35 to the Section, the Centennial Commemorative Book can be yours as our thank you in support of the Los Angeles Section of ASCE! Please make your donation by check made out to the Los Angeles Section of ASCE and mail to Gayle Stewart Associates, 1405 Warner Avenue, Suite B, Tustin, CA, 92780. For more information, Call 714-258-8306.

APWA SOUTHERN CALIFORNIA CHAPTER PRESENTS...

# 17th Annual Dinner & Officer Installation

SATURDAY, JANUARY 31, 2015

Join us for an Aloha-style evening of fine dining, dancing and casino night at the  
**ARTIC (Anaheim Regional Transportation Intermodal Center)**

1750 S. Douglas Road  
Anaheim, California 92806

7 p.m. Cocktails | 8 p.m. Dinner

\$95 per person  
\$115 per person after January 13, 2015

Reservations | southernca.apwa.net  
Questions | Kathy Dancel (626) 821-3456  
kdancel@saassociates.net

*Come in your finest Aloha and cocktail attire*  
*Black tie optional*

Sponsorships Available

assignment, the Los Angeles Section Membership Committee. We have excellent volunteers that give their time to help ASCE and the Los Angeles Section to remain the outstanding organization that it is. And, you too can join in and help your fellow ASCE members. Please go to the Section website or the website of your Branch and review the standing Committees. There are many opportunities to become a part of the administration of ASCE and starting as a volunteer on a Committee is a good path to take.

We currently have an opening for the Los Angeles Section Membership Committee Chair. Our previous Committee Chair, Mr. Brad Dybel, served us with distinction and with great passion for his role but work assignments and other interests resulted in him stepping down after several years of good work. We thank Brad for his volunteer efforts. The Membership Committee Chair position is critical to the success of our organization and includes the responsibility and fun of contacting all eleven student groups in the Section to share with them the need to convert their Student Membership into an Associate Membership, to communicate with new members and welcome them to ASCE, to seek new members through communication with local engineering firms and to be a resource for member benefits. It is a big job and it takes a person with perseverance and passion to make it work. How about you? Can you fill this position? Please contact me!

The Los Angeles Section Committees include the International Committee which sets up an international technical conference on design and construction every four years to enhance communication with our international brethren, the Legislative Committee which monitors legislation, sets up local visits with elected leaders to explain the interests of Civil Engineers, and seeks to increase participation and visibility of Civil Engineers in public policy planning, the Sustainability Committee which works to encourage and highlight the good work of Civil Engineers developing sustainable infrastructure, the Water Policy Committee that discusses the technical aspects of our limited water supply and recommends policy to improve water resources, the History and Heritage Committee that documents our history and Civil Engineer's positive contribution to the building of Southern California, and the Disaster Preparedness Committee which trains Civil Engineers as Disaster Service Workers as emergency volunteers for the State to address natural disasters. Each of these Committees will welcome new members and you can contact the chair of each Committee through the Section's website or by contacting me. In addition, we have many Technical Groups that can also be reached through Branch websites and they, too, will welcome new members and volunteers. Please fulfill our needs and volunteer now to keep ASCE the vibrant and growing organization that it is in this new year! Thank you for your service to ASCE.

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**Reminder:**

*Copy deadline for the January 2015 issue is December 1, 2014; copy deadline for the February 2015 issue is January 1, 2015*

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**MATERIALS SUBMISSION INFORMATION**

All graphic materials submitted for use in the ASCE newsletter should have all fonts outlined, and links included; EPS or PDF files preferred. Other formats are Adobe InDesign or Adobe Illustrator (any version); additional acceptable file formats are JPEG or TIFF files (minimum 300 dpi). Images embedded in Microsoft Word documents should be sent separately, at a minimum resolution of 300 dpi at the display size desired. Collected files, including links and fonts, should be compressed and e-mailed, or sent on CD or Zip disk (provide return address). Business cards can be submitted electronically as well, or send clean, crisp, B&W laser print, unfolded. This publication's size is 8½" × 11".

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**A Great Idea from the Life Members**

The ASCE Life Members' Public Image Committee request that members take their (to be discarded) Civil Engineering magazines to their doctor's office or barber shop and merge them with the stack of magazines. We feel that this will be an effective way to make the general public more aware of what civil engineers do.

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National ASCE (800) 548-2723 (ASCE)

Access National ASCE at: [www.asce.org](http://www.asce.org)

L.A. Section web site at:  
[www.ascelasection.org](http://www.ascelasection.org)



**History  
&  
Heritage**

**Celebrating the 100th Anniversary  
of the Los Angeles Section**



# State Investments and Legislative Update

by Richard Markuson, CA Region 9 Legislative Advocate



The 2015 legislative session is underway with new leadership in both houses and new policy committee chairs. The first deadline of the session comes at the end of January when all requests for bill drafts are required to be submitted to Legislative Counsel.

## Recent Reports

The AAA Foundation for Traffic Safety released *Measuring Cognitive Distraction in the Automobile II: Assessing In-Vehicle*

*Voice-Based Interactive Technologies*. "The goal of the current research was to measure and understand cognitive distraction stemming from voice-based technologies in the vehicle.... Because each task allowed the driver to keep his or her eyes on the road and hands on the steering wheel, any impairment to driving must be caused by the diversion of attention from the task of operating the motor vehicle.... We established that there are significant impairments to driving that stem from the diversion of attention from the task of operating a motor vehicle. The data suggest that voice-based interactions in the vehicle may have unintended consequences that adversely affect traffic safety."

The Mercatus Center at George Mason University released *Removing Roadblocks to Intelligent Vehicles and Driverless Cars*. "Policymakers should focus on clearing existing roadblocks to the development of intelligent vehicles, and exercise restraint regarding hypothetical concerns about their use. 'Permission less innovation' is the idea that experimentation with new technologies and business models should generally be permitted by default. Permission less innovation brought the Internet, an open and lightly regulated platform that allows entrepreneurs to adopt new business models and offer new services without first seeking approval from regulators.... Increased use of intelligent vehicle technology will bring social and economic challenges, but governments should maintain a flexible system that deals with real problems rather than hypothetical ones."

The Save California Streets Coalition released *California Statewide Local Streets and Roads Needs Assessment*, a biennial report that documents the condition of the 143,000 center-lane miles of streets operated by cities and counties. The report's top-line number is that average road pavement across the state's 58 counties is rated as a 66 – "at-risk" condition. That's down from 68 when the study was first conducted six years ago and is 4 points below the 70 that marks the bottom of the "good" category. (In contrast, anything lower than 50 is considered poor/failed.) This study was sponsored by the cities and counties of California and managed by the Metropolitan Transportation Commission (MTC).

State Water Resources Control Board released on its website estimates of daily water use per person in urban water districts, says

San Francisco Bay region was lowest, averaging 85.2 gallons per person per day, while Colorado River region averaged highest usage per capita at 251.9 gallons per day.

The Bioenergy Assn. of California has released its report, "Decarbonizing the Gas Sector: Why California Needs a Renewable Gas Standard," outlines strategy to reduce greenhouse gas emissions, findings include: "Organic waste alone can produce enough renewable gas to replace three quarters of all the diesel used by motor vehicles in California or enough electricity to power 2 to 3 million homes."

Next 10 has released "Bay to Market: Bay Area Innovations Leading Clean Technology Development," finds "The Bay Area is leading the nation in [Electric Vehicle] adoption, with the highest per capita adoption rate of EVs nationally."

Also released "Power Town: California's Capital Region Mobilizing to Meet Growing Demand for Clean Technologies," finds "Residential solar capacity has grown six-fold from 2007 to 2013 in the region."

Californians Against Fracking has distributed a report by FracTracker Alliance titled, "Hydraulic Fracturing Stimulations and Oil Drilling Near California Schools and within School Districts Disproportionately Burdens Hispanic and Non-White Students."

State Water Quality Control Board released annual Stream Pollution Trends report, finds that concentrations of pyrethroid pesticides, types that are "extremely toxic to aquatic life" and commonly used by urban consumers and in agriculture, increased between 2008 and 2012 in all watersheds in the state, particularly in urban watersheds.

The UC Berkeley Institute for Research on Labor and Employment released *Environmental and Economic Benefits of Building Solar in California: Quality Careers—Cleaner Lives*. "This report examines the current and potential emissions averted by newly-constructed utility-scale solar farms in California. It calculates the new construction, maintenance and operations jobs created by these recent projects.... The report estimates the income, health-insurance and pension benefits of utility-scale solar farm construction and subsequent plant operation and maintenance jobs, calculates the training investments ... estimates the impact of training on lifetime earnings of new workers, and presents case studies of four new apprentice workers employed on these projects. Finally, the report ... recommends four key policy actions to continue building on California's leadership in creating high-quality jobs while decarbonizing the energy sector."

The Brookings Institution released *Mapping Freight: The Highly Concentrated Nature of Goods Trade in the United States*. "The United States is the world's largest economy, as well as its preeminent trading power. Each year the country exports and imports over \$3 trillion worth of international goods, while the domestic market

*continued on page 7*

encompasses an astonishing \$17 trillion in goods trade between regions—amounting to a combined \$20 trillion.... Just 10% of the country's trade corridors move 79% of all goods, the most valuable of which are concentrated in the country's 100 largest metropolitan areas. The vast majority of the nation's goods trade tends to be highly concentrated in corridors between the largest metropolitan areas. For example, New York and Philadelphia (\$55.9 billion), Los Angeles and Riverside (\$51.0 billion), and San Francisco and San Jose (\$29.8 billion) are among the single largest corridors within the national network."

UC Berkeley—Energy Institute at Haas has released *Drilling Like There's No Tomorrow: Bankruptcy, Insurance, and Environmental Risk*. This study of Texas oil and gas producers confirms the "judgment-proof" effect of bankruptcy protection. Theory says that when firms are protected by bankruptcy, they take excessive environmental and public health risks. The study found that a recently introduced insurance requirement in Texas forced small firms with poor environmental records to exit from the industry. Remaining firms internalized the environmental costs of production with a 4% reduction in total output. "Environmental outcomes related to groundwater protection improved sharply.... The study's results suggest that the judgment-proof problem should be mitigated by public policies that reduce the safety hazards and environmental damages of other sectors, such as landfills, underground storage tanks, small-scale manufacturing, and hazardous materials transportation."

The Government Accountability Office released *Highway Trust Fund: DOT Has Opportunities to Improve Tracking and Reporting of Highway Spending*. "In recent years, dedicated revenues to the Highway Trust Fund have been eroding, resulting in fewer resources to fund surface transportation projects and requiring, between 2008 and 2014, transfers of over \$50 billion in general revenues.... This report examines what is known about the types of projects, activities, and federal administrative functions and expenses supported by DOT [U.S. Department of Transportation] using Highway Trust Fund monies in fiscal year 2013 ... [and] recommends that the Secretary of Transportation direct the FHWA [Federal Highway Administration] Administrator to explore the costs, feasibility, and options for collecting and publicly reporting consistent aggregate project-level spending data."

### Appointments

The Governor made the following appointment:

As Director of the California Department of Toxic Substances Control:  
Barbara Lee, Petaluma, air pollution control officer at the Northern Sonoma County Air Pollution Control District.

As general counsel at the California Natural Resources Agency:  
Thomas Gibson, Sacramento, general counsel at the CA Dept. of Fish and Wildlife since 2010.

North Coast Regional Water Quality Control Board David Noren of Sebastopol, has been reappointed - he has served since 2008. Noren has been manager of environmental engineering at EBA Engineering

since 1996. He was a project manager at Environet Consulting from 1995 to 1996 and an environmental specialist at BCW Environmental in 1995. Noren was a leadman at Stero Dishwasher Manufacturing Company from 1989 to 1995 and an agricultural management consultant for Shasta Crop and Soil from 1979 to 1986. He earned a Master of Science degree in environmental management from the University of San Francisco.

Lahontan Regional Water Quality Control Board **Kimberly Cox**, of Helendale, has been reappointed - she has served since 2013. Cox has been general manager at the Helendale Community Services District since 2007. She was senior management analyst for the City of Victorville Public Works Department from 2003 to 2007 and a water resources specialist for the City of Hesperia Water Department from 1999 to 2003. Cox was a customer service representative at Roadway Express from 1991 to 1999. She earned a Master of Public Administration degree in water resources management from California State University, San Bernardino. **Amy Horne** of Truckee, has been appointed - she has served since 2003. Horne was a science writer at the University of California, Davis from 2007 to 2009, research director at the Sierra Business Council from 1998 to 2005 and a forest researcher at the U.S. Forest Service Pacific Northwest Research Station from 1993 to 1997. Horne earned a Doctor of Philosophy degree in forestry and a Master of Forest Science degree from the Yale School of Forestry and Environmental Studies and a Master of Public Administration degree in natural resource policy and management from the University of Wisconsin-Madison.

Central Valley Regional Water Quality Control Board **Denise Kadara** of Allensworth, has been appointed. Kadara served in several positions for the City of San Mateo from 1997 to 2004, including senior management analyst and economic development specialist. She was a senior planner for the City of Hesperia from 1990 to 1994 and served in several positions for the City of Fontana from 1986 to 1990, including senior planner and administrative analyst. Kadara was a project coordinator for the City of Norwalk from 1984 to 1986 and served in several positions for the City of West Covina from 1978 to 1984, including aide and planning intern. She is a member of the Tulare Lake Basin Disadvantaged Community Water Study advisory committee.

Central Valley Regional Water Quality Control Board **Robert Schneider** of Davis, has been reappointed - where he has served since 2011. Schneider was senior policy director at Tuleyome from 2002 to 2013 and a partner at Verve Enterprises from 1995 to 2010 and at Bob Schneider Contractor, Ridge Builders Group, West Davis Associates from 1977 to 2010.



[www.ascelasection.org](http://www.ascelasection.org)



### **Attend the ASCE Construction Institute Summit | Henderson, NV | February 11-13**

Join CI, along with ASCE leadership at the 2015 CI Summit. The CI Summit offers dynamic technical sessions applicable to practitioners from across the Civil Engineering profession. In addition to the many technical sessions, you will find multiple opportunities for networking, plus unique conference special events, such as [Dig This](#), a chance to play in America's first heavy equipment playground.

Sessions include:

- [Pre-Conference Workshop on Claims Avoidance and Resolution](#)
- [Industry Implementation of Digital Project Delivery](#)
- [Writing Constructible and Enforceable Specifications](#)
- [Management Practices for Emerging Delivery Methods](#)
- [Utility Engineering – A Missing Educational Need for Sustainable Practice](#)
- [Federal Highway Administration's Every Day Counts \(EDC\) innovation initiative](#)
- [EJCDC Documents, New Agreements, and Updated Documents](#)
- [Advances and Challenges in Asphalt Paving](#)
- [Project Risk Assessment](#)

### **5 REASONS TO ATTEND**

- Expand your knowledge at technical sessions on Research, Planning, Design, Execution, Project Risk Analysis, and Claims
- Earn professional development hours (PDHs)
- Network with industry leaders and make valuable contacts at some featured conference special events
- Drive bulldozers and excavators on a construction site by participating in the pre-conference event
- Discover a truly unique environment of Lake Las Vegas and enjoy relaxation at this lakeside paradise

Join peers and colleagues for an opportunity to learn from experts in the field and network with design and construction professionals.

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## **Bi-Monthly Board Meetings**



**Day:**  
2nd Friday of February, April, June, August, October, and December

**Time:**  
7:30 am – 10:00 am

**Location:**  
ASCE LA Section Office  
1405 Warner Ave., Ste B., Tustin, CA 92780

Everyone is welcome

# Membership Benefits - ASCE Scholarships and Fellowships

*By Gregg Fiegel, PhD, PE, GE, M.ASCE, ASCE Region 9 At-Large Governor*



This month ASCE Region 9 asked me to prepare an article on the benefits of membership in ASCE. In considering various topics for this article, I decided to focus on our student members. Did you know that ASCE has a Society-level scholarship and fellowship awards program? Did you know that this fall ASCE distributed \$58k in support to undergraduate and graduate civil engineering students across the country? Our Younger Member Groups, Branches, and Sections throughout ASCE Region

9 do a tremendous job in supporting our students and providing scholarship, fellowship, and award opportunities. Available Society-level awards represent additional prospects for student funding and support. You only need to be an ASCE student member to apply, and the award amounts are not trivial!

I am currently serving as member of the ASCE Committee on Scholarships (COS). I just began my second year of a four-year term with this group. The roster for this committee includes four representatives including two educators and two practitioners. ASCE provides a staff contact to this committee, and the Society Awards Committee (SAC) appoints a liaison. Each year, the COS reviews student applications and selects recipients for numerous Society-level scholarship and fellowship awards. Scholarships support undergraduate students and their goal of earning a B.S. degree in civil engineering or a related field. Fellowships support civil engineering graduate students who are or will be working toward a Master's degree or Ph.D. There are currently six Society-level scholarship endowments that provide up to twenty scholarship awards each year. Additionally, the Society currently oversees four fellowship endowments, which provide assistance for graduate student tuition, research, and living expenses.

You may learn more about the different scholarships and fellowships available by visiting the ASCE website. Links to scholarship and fellowship opportunities are provided below:

ASCE Scholarships (undergraduate student assistance):

<http://www.asce.org/Scholarships/>

ASCE Fellowships (graduate student assistance):

[http://www.asce.org/ASCE\\_Fellowships/](http://www.asce.org/ASCE_Fellowships/)

At these websites you will find answers to frequently asked questions, details on applicant eligibility, and information on evaluation and selection criteria. Applications are available for download from the above sites. The applications contain specific details regarding eligibility criteria and submission requirements.

Applications are now being accepted for scholarships and fellowships to be awarded in the 2016 fiscal year (FY). Award funds are distributed during the fall of each academic year, typically in October. Students selected to receive a FY 2016 scholarship or fellowship must be enrolled in an undergraduate or graduate degree program during the 2015-16 academic year. The deadline for receipt of applications

for the current award cycle is approaching quickly. This deadline is February 10, 2015.

If you have the opportunity, I encourage you to inform our ASCE Region 9 students about these fantastic scholarship and fellowship opportunities. For students interested in applying for these awards, I offer the following advice.

➤ Remember that scholarship and fellowship applications cannot be completed overnight. Students must submit letters of recommendation and official transcripts with their applications. Remember that these documents typically require considerable lead time to request and obtain. Therefore, start work on your applications early. Additionally, remember Murphy's Law and be prepared!

➤ Make sure you read the application instructions carefully and provide all the requested information. Make sure the application is signed. Make sure your transcripts are official. Make sure you meet the eligibility criteria. Make sure you ask questions if you have them!

➤ Work to make your application easy to read. Write legibly (in print) when completing the application form, or better yet, type your responses. When providing a resume or personal statement, be sure to work through several drafts. Ask others to review your application materials. Make sure there are no errors in fact, typos, misspelled words, or grammar problems. Be sure to spend time on content and presentation.

➤ Double-check that your ASCE student membership is current and your membership number is correct. Checking your membership status involves a quick and easy on-line process.

➤ Where appropriate, emphasize and clearly describe your ASCE leadership experiences. These scholarship and fellowship funds are provided by ASCE. Make sure the application reviewers understand your past support of this organization.

➤ Don't be afraid to meet with potential faculty members or employers who you may ask to prepare a letter of recommendation on your behalf. Make sure these individuals understand your strengths, your personal goals, your aspirations, and your involvement with ASCE. Make sure a recommender has the desire (and time) to prepare a strong recommendation. Don't be afraid to emphasize this point when speaking with potential candidates.

➤ Don't underestimate your chances in receiving a scholarship or fellowship from ASCE. Be confident! Competition for these awards can be intense. But, you cannot win if you don't play. You would be surprised at the number of applications received each year for Society-level scholarships and fellowships. The numbers are likely not as high as you think.

If you have any questions regarding Society-level scholarships and fellowships or the Committee on Scholarships, please contact Gregg Fiegel at [gfigel@calpoly.edu](mailto:gfigel@calpoly.edu). Best of luck to you all as we begin the new year!



# Celebrating a Dedicated Career in Civil Engineering

by Audrey Caldwell (Reprinted from [www.asce.org](http://www.asce.org))



Audrey Caldwell

After a long and successful career in both the public and nonprofit sectors, executive director Pat Natale will be retiring at the end of this month. Before he leaves the Society where he has served for a dozen years, Pat agreed to sit down for a video interview ([https://www.youtube.com/watch?v=ZhA4MPDoqp0&list=PLA61bxD8Jg-2c3lO6sVinVXlwL5k\\_LIQ](https://www.youtube.com/watch?v=ZhA4MPDoqp0&list=PLA61bxD8Jg-2c3lO6sVinVXlwL5k_LIQ)) with Senior Managing Director Casey Dinges and share some of his thoughts on what it takes to reach his kind of leadership success.

After working for a corporate utility in New Jersey and serving on many different boards on a volunteer basis, Pat feels that both experiences were especially helpful when he moved to the nonprofit world. "Especially when I transitioned to the not-for-profit side, I understood the motivators on the for-profit side but also the values side." After stepping down from his role as President of NJSPE, his supervisor at Public Service Electric & Gas Company told him that he was a better manager than ever before because of that volunteer experience. As Pat said "What you're trying in a volunteer role, you can go back and use in a real job and it works well. It teaches leadership."

As a tribute to his dedicated service, ASCE hosted two farewell celebrations for Pat. At an evening Capitol Hill reception, leaders of Congress, the Administration, industry and the association community honored Natale for his leadership in increasing ASCE's visibility as the voice of infrastructure both in Washington and across the nation. Among those attending were: Rep. Earl Blumenauer [D-Oregon], Deputy Secretary of Transportation Victor Mendez, and leaders from the U.S. Army Corps of Engineers, American Road and Transportation Builders Association, Associated General Contractors of America, National Society of Professional Engineers, American Public Works Association, and Parsons Brinkerhoff.

Back at the Reston headquarters the next day, Pat and his wife Sheila were thanked by the staff. Opening the celebration, Tom

Smith, ASCE's current general counsel and next executive director said, "I'd like to take a few moments to say a few words about how much Pat has meant to all of us—he's been a mentor, a friend, a colleague and a role model as a leader. During his 12 years at ASCE, much has been accomplished." Noting just a few of the many highlights from Pat's career here, Tom included "publication of the Body of Knowledge, establishment of both Transportation and Development Institute and Engineering Mechanics Institutes, creation of the Institute for Sustainable Infrastructure and Envision rating tool, recognition of ASCE's headquarters as a LEED Gold certified building, and development of the Dream Big! IMAX movie project."

Although he is stepping down, Pat has plans to stay very busy. He will continue to be involved as a volunteer serving on the United Engineering Foundation board. He will continue his ASCE engagement supporting the IMAX movie development. And his newest adventure will be working part-time at Hatch Mott McDonald in New Jersey as their Vice President of Business Strategy.

Best wishes and farewell, Pat.





# Chief of Engineers Endorses “Raise the Bar”

(Reprinted from [www.asce.org](http://www.asce.org))



Lt. Gen. Thomas P. Bostick

The chief of engineers and commanding general of the U.S. Army Corps of Engineers (USACE), Lt. Gen. Thomas P. Bostick, P.E., M.ASCE, has declared his support for increased education as a requirement for entering licensed engineering practice in the future. In a letter to ASCE President Robert D. Stevens, Ph.D., P.E., F.ASCE, Bostick congratulated ASCE for its support of the Raise the Bar initiative, which seeks to better protect the future public health, safety, and welfare by requiring either a master's degree or an equivalent 30 hours of advanced education prior to licensure.

In his letter to the ASCE president, Bostick wrote that the “U.S. Army Corps of Engineers shares your concern that the body of knowledge necessary to enter the professional practice of engineering in the future is beyond the scope of today's four-year ABET/EAC degree – even when coupled with precicensure on-the-job experience.”

Bostick is the fourth Chief of Engineers to endorse the Raise the Bar initiative. Before him were Lieutenant General Robert B. Flowers, Lieutenant General Carl A. Strock, and Lieutenant General Robert L. Van Antwerp, Jr.

In an environment of rapidly expanding engineering knowledge but shrinking credit hours for engineering education, Bostick wrote, “In today's rapid pace of increased technology, individuals must acquire additional technical and specialty training to be significant contributors and competitors in a global market. Engineers must understand more about business, public policy, communications, globalization, lifelong learning, ethics, leadership, teamwork, and other professional skills.... While demands on engineering curricula have increased, many schools have significantly reduced the credit hours required to earn an engineering degree. This trend is counter to our needs.”

ASCE has documented through its Civil Engineering Body of Knowledge for the 21st Century that attaining the knowledge, skills, and attitudes required of the future licensed civil engineer will not fit in a four-year curriculum. That insight is mirrored by the National Academy of Engineering, which in its report *Educating the Engineer of 2020* found that “the exploding body of science and engineering knowledge cannot be accommodated within the context of the traditional four-year baccalaureate degree.”



Dr. Robert D. Stevens

In his letter to ASCE, Bostick wrote, “Your model for attainment of the formal educational portion of the Body of Knowledge is logical, practical, and achievable.... [T]he implementation of [ASCE] Policy Statement 465 [Raise the Bar] is, in my view, a step in the right direction and one that the USACE fully supports.”

Bostick concluded that a “workforce thoroughly prepared for entry into professional practice can only lead to heightened protection of the public's health, safety, and welfare.”



## WHY RAISE THE BAR?

### A Commitment to Engineering Excellence

The complex challenges facing 21st-century society will require professional engineers (PEs) to advance their technical excellence and professional leadership. The engineering education of the present—a four-year undergraduate degree—will not be sufficient to prepare the licensed professional engineers of the future.

### A need for expanded knowledge

PEs need greater breadth and depth of knowledge, leadership, and vision to address the increasingly complex challenges facing society.

### Society expects more

Every other learned profession has recognized the need to require education beyond the bachelor's degree. The time has come for engineering—with its broad impact—to recognize that need as well.

### Current education hours are insufficient

The credits required to earn the traditional four-year undergraduate engineering degree have decreased significantly. The expanding technical and professional knowledge required by engineers can no longer be learned within a four-year bachelor's degree experience.

### Enhanced leadership skills

PEs with enhanced technical, leadership, communications, and business skills will give the profession more effective project teams, generating improved operations and service.

### Engineering licensure boards support advancing education

The organization representing licensure boards remains committed to improving education standards to better prepare engineers to enter the profession and voted to develop a position statement that supports additional engineering education beyond a bachelor's degree.

- **Seeing the Future, Looking Back**—Compare today's engineering education to other professions, and learn what's happening to required credit hours.
- **10 Key Impacts, Issues**—Understand the issues and affects of Raising the Bar.
- **Engineering Bodies of Knowledge**—Discover how engineering bodies of knowledge define the foundation for engineering.
- **Licensure Boards Spelling Out a Position**—Learn how over the years the National Council of Examiners for Engineering and Surveying has backed Raise the Bar.

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