

the news



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PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS

P. O. Box 58186, Philadelphia, PA 19102-8186

Electronic Message Hotline: (215) 934-3639 (24 hours a day)

Vol. 69-1

Our 83rd Year

October, 1996

OCTOBER DINNER MEETING

Philadelphia Section, American Society of Civil Engineers

THURSDAY, OCTOBER 10, 1996

DREXEL UNIVERSITY GRAND HALL • Creese Student Center, Chestnut St., just West of 32nd
(Parking on street or in Drexel Parking Garage at 34th & Chestnut Sts. at a charge)
Cocktails - 5:30 p.m. • Dinner - 6:30 p.m. • Meeting - 7:30 p.m.

SUBJECT: Continuing Professional Education in the 21st Century

SPEAKER: Dr. Constantine Papadakis, President, Drexel University

SPECIAL FEATURE: DREXEL UNIVERSITY NIGHT

The ASCE Student Chapter, Alumni and Faculty of the Civil and Architectural Department of Drexel University will be honored at this meeting. All Students, Faculty, and Alumni are cordially invited.

RESERVATIONS MUST BE SUBMITTED BY MONDAY, OCTOBER 7. Please send your check for the number of attendees @ \$25 per member or guest; \$13 ASCE Student members, payable to the Phila. Section, ASCE, P.O. Box 58186, Phila. PA 19102-8186; or call the Electronic Message Center: (215) 934-3639 (open 24 hours/day).

Constantine Papadakis, a Professional Civil Engineer, dynamic academic administrator, and experienced corporate manager, is the 11th President of Drexel University, unique in the nation for its technological focus and mandatory co-operative education program. As President, he manages an institution with 10,000 students and comprised of six colleges including the College of Engineering, home of the Drexel Engineering Curriculum, designated a national model of the National Science Foundation, and ranked in the top 50 of American engineering colleges by U.S. News and World Report.

A Fellow of the American Society of Civil Engineers, Papadakis was elected Young Engineer of the Year by the Michigan Society of Professional Engineers in 1982, and in 1983 served as President of the Michigan Section of the American Society of Civil Engineers. Active in his profession and community, he is presently chairman-elect of the Professional Engineers in Education Division of the National Society of Professional Engineers (NSPE).

Papadakis, 50, combines more than 20 years of administrative experience in academia and the corporate world. Formerly Dean of Engineering at the University of Cincinnati, he also has technical experience in water supply and sewage, treatment plants, storm water and flood management, dams and reservoirs, ground water, pollutant transport and remedial action, power plants, and small hydro-power projects.

A native of Greece, Dr. Papadakis received his undergraduate degree in Civil Engineering from the National Technical University, Greece, in 1969. He also holds a Masters degree in Civil Engineering from the University of Cincinnati and a Ph.D. in Civil Engineering from the University

As Peter Drucker and others have pointed out, the basic economic resource is no longer capital, labor, or natural resources, but knowledge. As a result, engineering professionals must learn continuously in order to maintain their effectiveness and secure their success. Drexel is increasing the opportunities for continuous learning by reaching this workforce through new learning media and technologies, and by extending our outreach into the places where professionals live and work. Drexel is committed to innovation in both the delivery and content of professional education.

Philadelphia Section to Sponsor City Mural, ASCE Volunteers Needed

The Philadelphia Section, ASCE, is planning to participate in Philadelphia's ongoing fight against graffiti by sponsoring a mural for the Mural Arts Project. Preliminary plans call for a three-story mural depicting civil engineering activities. We need your help! A Steering Committee has been formed to help plan the design of the mural and to expedite activities around the painting of the mural. The Committee will maximize participation by members of the Philadelphia Section and the neighborhood where the mural will be.

The Mural Arts Project is a section of the Phila. Depart. of Recreation dedicated to designing and painting murals around the City in an effort to combat graffiti. Since its inception in 1984 as part of the Anti-Graffiti Network, the project has been successful in discouraging graffiti artists, using their talents constructively in painting the murals, and promoting community pride.

If you are interested in contributing to this unique and rewarding community project, **please call Yael Heller at (215) 928-2211.**

About Drexel University

Drexel, Philadelphia's second largest private university, is dedicated to educating women and men to live successfully in a technological world. The University is widely recognized for its excellence in career, professional and graduate preparation and is home to one of the nation's oldest and largest cooperative education programs. A leader in educational innovation since its founding in 1891, Drexel in 1983 became the first U.S. university to require all students to have personal access to a microcomputer. Additionally, the pioneering Drexel Engineering Curriculum has been designated a national model by the National Science Foundation. The University is comprised of six colleges: Arts and Sciences, Business and Administration, Engineering, Information Science and Technology, Nesbitt College of Design Arts, and the Evening College, and offers 46 bachelor's, 39 master's, and 17 doctoral programs.



THE PRESIDENT'S MESSAGE

In many ways September is one of the most exciting months of the year. It marks the end of summer and a time to think less about recreation and more about new initiatives in our work. It is the beginning of the academic year when students and faculty get a fresh start. Our favorite football teams enter the new season with great optimism. For Philadelphia Section, ASCE members, September means the start of a myriad of activities. A major objective this year is to increase the participation by our members. Over the summer the Board of Directors has worked hard to develop policies and plan activities. The Board has established a

schedule of monthly meetings with a variety of interesting topics and speakers (see Schedule on last page). Constantine Papadakis, Drexel's energetic new President, will discuss Continuing Professional Education at the October meeting. Dr. Papadakis is a Civil Engineer with experience both in academia and the corporate world. We hope that this will be the beginning of a great relationship with the Civil Engineers of Philadelphia. Our monthly meetings are informative sessions that offer opportunities to socialize with fellow engineers.

Each of the Section's seven Technical Groups will be conducting sessions on their specialty subjects during the course of the year. Detailed information about these sessions will be in future editions of THE NEWS. The Section also has a very active Younger Member Forum (under age 35), and works closely with the Student Chapters from six universities. The names and phone numbers of chairmen of the technical groups and YMF are listed in THE NEWS. Anyone interested in joining the Steering Committee for any of these groups should contact the respective Chairman directly.

As a follow-up to last year's Section President **Bill Richards'** initiative to update the guidance used by the Board of Directors to administer the Humphrey Fund, we have adopted a new policy to use both the Fund's income and principal when appropriate to help meet the objectives of the Section. The budget for this year includes an allocation from the Humphrey Fund for special projects. Among the new initiatives are the sponsoring and the participation in the creation of a giant mural as part of the City of Philadelphia's Anti Graffiti Program. **Yael Heller**, newly elected Vice President of the Section's Younger Member Forum, is leading the Steering Committee, which is looking for volunteers to join the Committee. The Philadelphia Section will be host to the National ASCE's Zone Management Conference to be held the weekend of January 31-February 2, 1997. This session will involve Officers of local ASCE Section throughout northeastern United States as well as representatives of Student Chapters and Younger Member Forums. Phila. Section Director, **Allen Cadden**, will be leading our effort in hosting this event. Also, the Section has proposed that the ASCE National Convention in the year 2003 be held in Philadelphia. We will be making a presentation to the Committee on Conventions and Conferences at the National Convention in Washington, DC in November. Past President **Bill Thomsen** is leading this effort.

With all these activities, this is going to be a busy year. We need your help! If you would like to become more active or if you have any specific programs to suggest, please contact me or any Officer, Board member or Committee Chairman, or leave a message on the Electronic Message Hotline.

Sincerely,

Al Zion, P.E., President, Philadelphia Section, ASCE

Join the Engineering Management Group!

When you graduated from college, did you know that your management skills would be just as important as solving engineering problems? The Engineering Management Technical Group of the Philadelphia Section, ASCE, is dedicated to

informing Section members of the latest developments in managing the engineered project. We have sponsored programs on such topics as the Internet, Metrication, and Engineers' Compensa-

(Continued on page 8)

PLEASE PAY YOUR SECTION DUES!!!

The Philadelphia Section, ASCE Board of Directors respectfully urges all Section members to bring their dues up to date. If your 1995-1996 dues (\$18.00) is in arrears, please remit your check immediately. Also, send in your check (\$18.00) for 1996-1997 dues when you receive the bill from National ASCE headquarters. Thus you will be assured of Active Membership and will enjoy all the services and functions of the Philadelphia Section, including the monthly newsletter, THE NEWS.

Members not receiving THE NEWS are deprived of all the technical and social activities announcements; reviews of previous Section meetings featuring addresses by distinguished speak-

ers; updating of National and Local official reports; Members in the News, and the numerous miscellaneous subjects covered in the monthly issues.

So—if you are in arrears, please do yourself and your Section a service, by mailing your check including the Philadelphia Section dues of \$18 per year, with the dues bill(s) which you have received from National Headquarters in New York. Only thus will you enjoy all the benefits that accrue with receipt of the monthly issues of the Philadelphia Section newsletter, THE NEWS.

Mail your checks, payable to Philadelphia Section, ASCE, P.O. Box 58186, Philadelphia, PA 19102-8186.

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**COPY DEADLINE FOR
NOVEMBER 1996 ISSUE
OCTOBER 10, 1996**

YOUNGER MEMBER FORUM NEWS

by Christopher Menna, Forum editor

The Younger Member Forum, YMF current membership includes college students, recent graduates, and young registered Professional Engineers who are 35 years of age and under. The objectives of this group are: 1) To provide networking opportunities, 2) To interact with schools and the general public to promote civil engineering, and 3) To enhance career development.

Young engineers or college students who would like to become part of the YMF please contact **Chris Hudson**, Frederic R. Harris at (215) 735-0832.

Upcoming Events

October 16, 1996 is Drexel University's ASCE Student Chapter Career Night. The YMF has volunteered to provide panelists to address informally undergraduates about careers in civil engineering. Panelists are needed to represent all civil engineering disciplines. If you are interested in filling one of these spots, please contact **Tom Brady**, of Greiner at (610) 337-3666.

The next monthly meeting will be held on **Tuesday, October 22, 1996, 6:30 pm**, at Drexel University's Hill Conference Center. Our guest speaker, **Mr. Christopher Bradley**, will give a short financial planning seminar during the meeting. Mr. Bradley is a Financial Advisor for Merrill Lynch in Wayne, PA. His discussion will focus on financial concerns that trouble most young people today. Pizza and refreshments will follow the meeting. Members interested in attending the October meeting should RSVP **Yael Heler** at (215) 928-2211 by October 16, 1996.

Past Accomplishments:

The YMF has stayed active these past few months. Elections for our 1996-97 officers were held during the April 30th meeting at A.E.Gator's Restaurant in Haverford. We are proud to announce that **Dave Hanly**, of Frederic R. Harris, Inc., has been elected President, **Yael Heller**, Black & Veatch Special Projects, has been elected Vice President, **Chris Hudson**, Frederic R. Harris, has been elected Secretary, and **Tom Brady**, of Greiner, has been elected Treasurer.

On June 24, 1996, the Social Committee sponsored a Summer Happy Hour at TGIFriday's on the Parkway. Twenty-two members spent time networking and socializing on the roof deck.

On June 27, 1996, the Community Affairs Committee sponsored a Habitat for Humanity workday at the North Central Philadelphia Site. Nine members spent the day building stud walls, putting up furring strips and filling in holes.

The first meeting of the new year was held on September 19, 1996 at Casa Mexicana in Manayunk. After the social hour, **Mr. Joe Smith** gave a short presentation entitled "Making Yourself Marketable." Mr. Smith is a Career and Human Resource Consultant for Options, Inc. Following the presentation, our newly elected officers reviewed their agenda for the year.

APRIL JOINT DINNER MEETING

April 10, 1996

Harbor League Club, Camden, NJ

DOD Architect/Engineer Contracting

A well attended (about 115 members, guests and students) enjoyed the final regular monthly meeting of the Philadelphia Section, ASCE, 1995-1996 season. It was the Annual Joint Dinner Meeting with the Philadelphia Post, Society of American Military Engineers (SAME). The main subject of the meeting was: "The Department of Defense Architect/Engineer Contracting." Principal speaker was **Paul P. Buonaccorsi**, Assistant Deputy Commander for Contracts, Naval Sea Systems Command Contract Directorate, United States Department of Defense. Co-Chairmen for the Joint Meeting were **Paul Brott**, First Vice President, Philadelphia Post, SAME, substituting for SAME President **Lt. Col. Robert Magnifico**, who was unable to attend; and Phila. Section, ASCE President **William G. Richards**, presiding over the final meeting of his term.

Each Co-Chairman made opening remarks of greeting to the assemblage, and announced business items of interest to their respective Societies.

University of Pennsylvania Night

The meeting honored the ASCE Student Chapter, Alumni and Faculty of the Civil Engineering Systems Department of the University of Pennsylvania. Student Chapter Faculty Advisor **Dr. Shie Wen** was unable to attend the meeting due to prior commitments. Substituting for him in reviewing the Student Chapter activities were: President **Glenn Standifer**, Secretary **Toni Loiacano** and Vice President **Michael Tantala**.

Chapter President Speaks

President Standifer thanked his hosts for their courtesies and introduced the fourth Chapter officer, Treasurer **Clayton Lane**. He reported that out of a Civil Engineering student body of 60 (freshmen to seniors) 15 are active members of the ASCE Student Chapter - an encouraging statistic. He reviewed in general the busy schedule of the Chapter, and praised the dedication and hard work by Miss Loiacano and Mr. Tantala and their assistants on behalf of the Student Chapter agenda, which include regular meetings, curriculum planning, socials and the Locke Elementary School Playground Project. Miss Loiacano described in detail the admirable Playground Project, which was conceived early in 1994, inspired by and assiduously supported by the Penn ASCE Student Chapter as a community service activity, and which has been incorporated into the Civil Engineering Senior Design Project, a two-course sequence. The project will take advantage of student volunteers for on-campus fund-raising and actual construction, including design, obtaining permits, ensuring future liability protection and maintenance and logistics. Significantly, the proposed playground will be the first new play facility to be constructed in the Philadelphia School District in ten years. The groups implementing the playground hope that the project will foster the intellectual creative and athletic growth of children in Philadelphia. Bravo to Penn's

ASCE Student Chapter and its devoted worker members!

Mike Tantala on Penn's Systems Curriculum

Chapter Vice President **Michael Tantala** gave a presentation about the civil engineering systems curriculum at Penn. Mike stressed that civil engineers deal with the challenges of planning and designing the complex infrastructure systems of modern life, including structural, transportation and environmental systems. Penn's systems approach to civil engineering deals with the interactions among the physical, social, economic and political factors that influence the design and operation of a civil engineering project.

Penn invites you to see their World Web page at <http://www.seas.upenn.edu/~asce>.

Mr. Buonaccorsi & A/E Contracting in the DOD

The featured speaker of the evening: **Paul P. Buonaccorsi**, Assistant Deputy Commander for Contracts, Naval Sea Systems Command Contract Directorate, United States Department of Defense, addressed the important and "rising in national attention" issue of Architect/Engineer Contracting and the Design/Build concept. In introduction, Mr. Buonaccorsi outlined an overview of how Design/Build contracts evolve and develop, particularly in the Department of Defense. He explained the DOD method of awarding lump sum lowest responsible bidder, design/bid/build operation and maintenance contracts. Inevitably - notwithstanding the extraordinary complexities of the planning and execution associated with design and construction of major works and infrastructure - the problems are further aggravated by congressional edicts, authorizations or changes in legislative empowerments.

Naval Sea Systems (NAVSEA) Operations

NAVSEA stipulates the requirements to bidders, which in most cases is to deliver a "Complete Package" building to the Department. When bidders submit proposals which are not satisfactory, NAVSEA says: "thank you very much," pays a complimentary service fee of 3-5% for bidder's input, and seeks another bidder. Mr. Buonaccorsi described the process of preparing Design/Build contract bidding and methods of selecting the successful contractor. The procedure usually takes about four months on major projects.

Responsibilities and Details

Mr. Buonaccorsi explained the limits of responsibilities for the parties, as to design details, procedures and practices regarding selection of building materials, use of (or avoidance of) local codes, and brand names. There are also provisions to limit responsibility to the contractor, including maintenance and - in special cases - operation.

The Design/Build concept, noted our distinguished speaker, is growing in usage. He discussed some major projects on the United States

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SECTION 1996 AWARDS PRESENTED AT SPRING SOCIAL

The Section Awards for the 1995-96 season were presented at the Section's Annual Spring Social and Dinner Dance on Friday, May 3, 1996 at the Sugarloaf Conference Center in Chestnut Hill. Over 140 Section members, spouses and guests participated in the Social, which additionally included the induction of new Officers and Board Members. Past President **Susan Lior** (1988-1989) presented the oath of office to the incoming slate.

The recipients of Section awards were cited with the audio-slide show that has become a tradition at the Social over the past several years. Seven individuals were recognized for honors in the 1995-96 season.

Philadelphia Civil Engineer of the Year

Joseph R. Syrnick is this year's recipient of the Section's highest honor, the Philadelphia Civil Engineer of the Year.

Joe is the Chief Engineer and Surveyor for the Philadelphia Department of Streets, a position he has held for the past ten years. In this capacity he directs all transportation planning and design efforts, bridge and structural design and construction, land surveying and road records, and related activities for the Department. Under his direction, the Department has implemented significant projects such as those currently underway on South Broad Street and Market Street, and completed projects on Market Street, the Convention Center-Streets, West River Drive and several major bridge replacement efforts. Prior to being appointed Chief Engineer, he served in several capacities in the Department's Bureau of Surveys and Design over the span of sixteen years.

Joe is a fixture in the Philadelphia Section and is well known for his various and seemingly tireless contributions over the years. He is a Past President of the Section (1980-1981) and currently serves on one National Committee. He serves as the Assistant Editor of our Section's newsletter, THE NEWS. He has received awards on both the Section and National levels in the Government Engineer category. He is a 1969 graduate of Drexel University. He and his family live in the Roxborough section of Philadelphia.

Young Civil Engineer of the Year

Yael B. Heller is the winner of this award. She is a Civil Engineer with Black and Veatch in Center City Philadelphia, where she is involved in hazardous waste remediation efforts, landfill design projects, and redevelopment planning. As part of her duties, she has handled a large portion of the firm's computer assisted design and computer modeling activities, and manages the office intern program in conjunction with Drexel University's Cooperative Education program.

Yael is a 1992 graduate of Drexel University, where she received her Bachelor's degree in Civil Engineering. She has been an extremely active member of the Section's Younger Member Forum and has served a key role in the planning of the Forum's outreach programs in the community. She is also an active volunteer in several commu-

nity service groups and programs. She has been elected Vice President of Younger Member Forum for the 1996-97 year.

Yael is a resident of Center City Philadelphia.

Government Engineer of the Year

Zia A. Khan, the Director of the Engineering and Construction Section of the Philadelphia Department of Public Property, received the honors this year. He has been Director for the past six years, and as such he manages all planning, design and construction management services for City buildings and capital projects for nine diverse City agencies.

Zia is a 1963 graduate of the University of Karachi, Pakistan. He and his family reside in Northeast Philadelphia.

Geotechnical Engineer of the Year

This year's awardee is **Pedro C. Repetto**, the Vice President for Engineering Services for Woodward Clyde Consultants in Blue Bell. He is responsible for management of all engineering projects and marketing activities for the firm, which includes Geotechnical Engineering, Solid Waste Management, Environmental Remediation and Mining efforts. He is an internationally renowned authority in Geoenvironmental Engineering and has authored over twenty papers on this subject.

Pedro received his Bachelors degree in Civil Engineering from the Catholic University of Peru in 1965. He and his wife live in Cherry Hill, NJ.

Engineering Manager of the Year

Harry E. Laspee, a Project Engineer at Pennoni Associates, received this honor. He works in Pennoni's Transportation Division, where he is responsible for the design and construction contract administration of infrastructure improvement projects for various private clients and government agencies. Under his guidance, difficult problems are routinely resolved and projects are advanced to implementation quickly and efficiently.

Harry is a 1979 graduate of Temple University, where he received his Bachelor of Science degree in Civil Engineering and Construction Technology. He and his family live in Northeast Philadelphia.

Transportation Engineer of the Year

Chris L. Rood, a Senior Program Manager of the Engineering and Construction Division of the Rail Facilities Department of SEPTA, is this year's honoree. He directs oversight of capital projects, including design and construction of major track and structure improvements. He also served as second in command for the 240 million dollar Railworks project.

Chris received his Bachelors degree in Civil Engineering from Penn State University in 1977. He is a former member of the Philadelphia Section Board of Directors and is active in many Section Committees as well as on the Delaware Valley Engineers Week Council. He and his wife reside in Collegeville.

Government Service Award

The Section's Government Service Award recipient is **Andres Perez**, the Commissioner of the

Department of Public Property of the City of Philadelphia. He oversees the management of municipal buildings and real estate, transit and communications facilities, building architectural and engineering services and related activities. Under his leadership, the Department implemented such notable efforts as the Criminal Justice Center, new correctional facilities in Northeast Philadelphia, the renovation of the Municipal Services Building and City Hall, and the completion of the University City rail station.

Andy earned his Bachelor of Arts degree in Social Welfare from Antioch University in 1973. He and his family live in Northeast Philadelphia.

As we have come to expect, the Section's Spring Social and Awards Committees did its best to ensure a successful and memorable event. **Sandra May, Sue Lior, Bill Richards, Bill Thomsen and Bob Wright** are to be congratulated for their fine efforts.

The 1996-97 Social is tentatively scheduled for **Friday, May 2, 1997**. Watch THE NEWS for more details.

IMPORTANT JOB OPPORTUNITY

CITY OF FORT LAUDERDALE
is seeking Qualified Applicants
for the position of
ENGINEERING DESIGN MANAGER

The Salary:

\$45,468.80-\$64,230.40 annually,
Management Category III

The Position:

This is advanced managerial and professional engineering work of considerable difficulty involving the design of a wide variety of municipal public works and utilities operation projects and the supervision of a major engineering work group, or the review of private development projects for conformity with applicable codes including Development Review Committee (DRC) engineering plans review coordination, overseeing City permitted work being performed in right-of-way areas and resolving associated right-of-way issues, and management of engineering permit issuance.

An employee in this class has immediate responsibility for the design and preparation of plans and specifications for all types of Public Services structures and appurtenances, or the review of private development projects. Work involves the supervision of subordinate engineering and technical personnel. Work assignments require the application of advanced management and engineering skills and considerable use of independent judgment in developing and completing projects or the in management/review of projects being developed by engineering consultants or private developers.

Applicants must:

Possess a valid registration as a Professional Engineer. Must obtain State of Florida registration as a Professional Engineer within one (1) year of

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1996 PHILADELPHIA SECTION ASCE SALARY AND BENEFITS SURVEY

The 1996 Philadelphia Section ASCE Salary and Benefits Survey was sent to approximately 1,000 ASCE members in the April/May 1996 issue of THE NEWS. We received 116 responses for a response rate of nearly 12%. This is similar to 1994's survey which received 115 responses.

Our typical respondent is a 42 year old married Caucasian male who has worked full time for 19 years. He has a Master's degree, is a registered PE, and has been a member of ASCE for 10 years. He is a Consultant who has had three employers since beginning full time employment and has worked for his current employer for seven years. His one way commute is 35 minutes and he works an average of 45 hours per week at a salary of \$65,000 per year. His employer provides 18 days of vacation and personal time, nine holidays and 10 sick days.

This year's survey included some new questions including: the number of children the respondent had, if any (a median of two), the number of years of professional registration (13 years), primary county of residence, and the availability of 401(k) or similar plans. In addition, the survey asked the question "If you had a second chance, would you still become a Civil Engineer?" Seventy-eight percent responded "Yes." Eighty-six respondents provided comments on why they would or would not repeat their career choice.

In comparing this year's survey to the 1994 survey, we observed the following:

- The median salary increased by seven percent over the two year period.
- Job security was the most critical concern for 15% of the respondents. In 1994, 7% cited job security as the most critical concern.
- Respondents who believed that finding a new job would be "somewhat difficult" increased from 39% in 1994 to 50% in 1996.
- 54% disagreed that consulting work should be competitively bid. This is an increase from 39% in 1994.
- 10% believed that there is a shortage of Civil Engineering graduates. In 1994, 19% believed that there was a shortage.

We thank all of the ASCE members who took the time to respond to this year's survey. The results give us insights into our careers and into trends in the Civil Engineering profession.

Dennis Mac Bride and Sandra May
Professional Practices Committee

Editor's Note: The Phila. Section congratulates Sandra and Dennis for this outstanding analysis and report.

	1996	1994	1991
A PERSONAL DATA			
1 Age (Median)	42 yrs	41 yrs	37 yrs
2 Years of full-time employment (Median)	19 yrs	18 yrs	15 yrs
3 Race			
Caucasian	93%	94%	95%
African American	1%	1%	1%
Hispanic	3%	1%	1%
Asiatic	4%	3%	2%
Other	0%	2%	1%
4 Sex			
Male	94%	94%	91%
Female	6%	6%	9%
5 Marital Status			
Single	17%		
Married	78%		
Divorced	4%		
Widowed	1%		
Number of children, if any (Median)	2 children		
6 Education			
No Degree	1%	0%	1%
Bachelor's Degree	35%	37%	39%
BS + 15 hours	16%	15%	15%
Master's Degree	45%	43%	40%
Doctorate Degree	3%	6%	5%
7 ASCE Membership Grade			
Student	0%	0%	3%
Associate	20%	25%	31%
Member	75%	67%	60%
Fellow	2%	4%	4%
Life	3%	4%	2%
Number of years Member of ASCE (Median)	10 years		
8 Registration			
EIT Only	17%	—	—
PE only	77%	—	—
LS only	0%	—	—
Both PE and LS	6%	—	—
Number of Years Registered (Median)	13 years		
9 Other Membership (Median)	2	2	2
B. EMPLOYMENT DATA			
1 Income Source			
Self-employed	7%	5%	3%
Salaried	91%	88%	96%
Commissioned	1%	0%	0%
Retired	1%	4%	1%
Unemployed	0%	3%	0%
Student	0%	0%	0%
2 Type of Employer			
Consultant	54%	53%	58%
Contractor/Builder	3%	5%	7%
Federal Govt.	6%	4%	8%
State Govt.	3%	5%	3%
Mun., Local or Reg. Gov. or Auth.	13%	19%	9%
Utility (Private & Public)	5%	5%	4%
Manufacturer	—	3%	3%
Education	3%	3%	2%
Sales	3%	0%	0%
Other	10%	6%	6%
3 Primary Responsibility			
Technical	53%	53%	49%

Sales	3%	0%	1%
Management	37%	—	—
Supervisory	—	24%	28%
Administrative	3%	15%	17%
Other	4%	8%	5%
4 Do you supervise other people?			
Yes	72%	77%	79%
No	28%	23%	21%
5 Number of diff. employers (Median)			
	3	3	3
6 Do you have a 2nd job?			
Yes	11%	9%	10%
No	89%	91%	90%
7 Years with current employer (Median)			
	7 yrs	8 yrs	6 yrs
8 Primary County of Employment			
PA-Bucks	21%	4%	8%
Chester	7%	13%	14%
Delaware	9%	6%	7%
Montgomery	11%	20%	19%
Philadelphia	37%	44%	37%
NJ - Burlington	4%	2%	5%
Camden	2%	0%	1%
Gloucester	0%	0%	0%
Other	10%	11%	9%
Primary County of Residence			
PA-Bucks	15%		
Chester	10%		
Delaware	16%		
Montgomery	21%		
Philadelphia	22%		
NJ - Burlington	3%		
Camden	9%		
Gloucester	0%		
Other	4%		
9 Method of Commuting			
Drive	63%	68%	73%
MassTransit	21%	15%	14%
Car Pool	2%	1%	1%
Walk	3%	1%	4%
Drive & Mass Transit	9%	13%	7%
Other	2%	3%	1%
10 Approximate commuting time (median)			
	35 min.	35 min.	20 min.
C SALARY AND BENEFITS			
1 Salary (Median) \$65,000 \$61,000 \$51,000			
Bonus			
Percent Receiving	30%	28%	34%
2 Median			
Average	\$4,900	—	—
	\$10,176	\$8,100	\$3,000
3 Overtime Renumeration			
None	58%	52%	47%
Time (Compensatory)	14%	19%	15%
Paid at regular pay rate	24%	20%	29%
Paid at time & a half rate	4%	8%	6%
Double time	0%	0%	1%
4 Number of hours worked per week (Median)			
	45 hours		
5 Vacation, Personal, etc. (Median)			
	18 days	15 days	15 days
6 Holidays (Median)			
	9 days	9 days	9 days
7 Sick Leave (Median)			
	10 days	10 days	10 days
8 Insurance (Company Paid)			

HOSPITALIZATION

100% Company Paid	39%	41%	47%
Partially Company Paid	59%	56%	51%
None	2%	3%	2%

MAJOR MEDICAL

100% Company Paid	38%	37%	44%
Partially Company Paid	60%	56%	53%
None	2%	7%	3%

DENTAL

100% Company Paid	27%	25%	25%
Partially Company Paid	55%	48%	46%
None	18%	27%	29%

OPTICAL

100% Company Paid	12%	15%	13%
Partially Company Paid	42%	33%	26%
None	46%	51%	61%

DISABILITY

100% Company Paid	47%	36%	51%
Partially Company Paid	29%	33%	26%
None	24%	31%	21%

LIFE

100% Company Paid	47%	51%	55%
Partially Company Paid	36%	33%	32%
None	16%	16%	13%

LEGAL FEES

100% Company Paid	18%	10%	10%
Partially Company Paid	1%	5%	6%
None	81%	84%	84%

CHILD CARE

100% Company Paid	1%	1%	2%
Partially Company Paid	6%	4%	5%
None	93%	95%	93%

9 Pension Plan

Yes	63%	80%	80%
No	37%	20%	20%

10 Profit Sharing

Yes	34%	41%	45%
No	41%	36%	54%
Not applicable	25%	23%	1%

11 401 (k) or equivalent

Yes	82%		
No	18%		

12 Formal severance pay policy

Yes	24%	39%	34%
No	76%	61%	66%

13 Continuing ed. tuition reimbursement

Yes	70%	29%	21%
No	30%	71%	79%
If yes, maximum %			
33% and 50%	22%		
67, 70, 75 and 80%	20%		
100%	58%		

D. OPINIONS**1 Satisfied with current employment?**

Unsatisfied	6%	8%	4%
Somewhat unsatisfied	22%	14%	17%
Satisfied	27%	29%	20%
Most satisfied	25%	29%	45%
Very satisfied	20%	20%	14%

2 Performing true engineering work?

Yes	54%	59%	56%
No, admin, super, business, prom, etc.	35%	32%	37%
No, technician/draftsprsn	3%	1%	2%
No, other functions	8%	8%	5%

3 Work properly reviewed?

Yes	37%	34%	39%
No	19%	16%	12%
Yes, but could be better	37%	34%	41%
Not applicable	8%	17%	8%

4 Looking for new w/in next 2 years?

Yes. If yes, why?	37%	35%	35%
No	63%	65%	65%
Salary	23%	20%	16%
Boss	19%	13%	5%
Lack of responsibility	10%	13%	1%
Other:	48%	54%	13%
Retirement, layoff, end of assignment	20%	—	—
Location	12%	—	—
Lack of Challenge	8%	—	—
Management Problems	4%	13%	—

5 New job, most critical concern?

Pay and benefits	20%	30%	29%
Company reputation	7%	3%	9%
Responsibility	9%	19%	15%
Security	15%	7%	5%
Location	11%	7%	11%
Amount of travel	2%	—	—
Type of work	36%	31%	27%
Otyher	1%	3%	4%

6 How easy to find a new job?

Very easy	11%	9%	10%
Easy	28%	38%	45%
Somewhat difficult	50%	39%	35%
Difficult	10%	14%	10%

7 Salary, compared to other CE's?

Much lower	2%	4%	3%
Lower	29%	16%	24%
Similar	54%	50%	48%
Higher	13%	27%	23%
Much higher	2%	3%	2%

8 Fringe benefits, compared to other CE's?

Much lower	6%	6%	7%
Lower	19%	12%	15%
Similar	38%	39%	45%
Higher	30%	38%	28%
Much higher	60%	5%	5%

9 Professional environment important?

Yes	87%	83%	89%
No	13%	17%	11%

10 Satisfied with environment?

Yes	69%	71%	75%
No	31%	29%	25%

11 Do you agree or disagree with following?

Registration req'd as cond of employ			
Agree	39%	42%	37%
Disagree	61%	58%	63%

Cont Ed to maintain registration?

Agree	61%	59%	54%
Disagree	39%	41%	46%

Should consulting work be competitively bid

Agree	46%	61%	60%
Disagree	54%	39%	40%

Advertising, . . . is acceptable?

Agree	89%	86%	90%
Disagree	11%	14%	10%

Shortage of CE graduates?

Agree	10%	19%	44%
Disagree	90%	81%	56%

12 If 2nd chance, still be a CE?

Yes	78%	82%	—
No	22%	18%	—

Why? "Yes"

Like Work / Satisfied	53%		
Good Career / Challenging / Interesting	17%		
Other	30%		

"No"

Financial / Salary	55%
Risk / Reward Ratio Too High	14%
Few Opportunities	9%
Other	23%

If you had a second chance, would you still become a Civil Engineer?

Total Comments	%
"Yes"	64
Like Work/Satisfaction	34
Good Career/Challenge /Interesting	11
Other	19
"No"	22
Financial/Salary	12
Risk/Reward Too High	3
Few Opportunities	2
Other	5

Other Comments and Suggestions

Does your company perform reviews? Do they affect your raises? What percentage of your salary was your last raise?

D4: Laid off 9/1/95

Currently working as a consultant and temporary employment as an engineer with Federal Agency

D4: Company Climate uncertain

Amount of government vs. private work currently underway.

I'd like to learn more on techniques in negotiating my salary.

Suggest that retired mbrs. not bother to respond.

D12: I am a slow learner, but like my work.

B3: I am chairman of civil engr dept @ college level

"+ education"

D4: No chance to do engineering - secretary duties dumped on me.

D110: only designers

Comments; Many Civil Engrs are "pigeon-holed" in a type of work - particularly in Transp field) - Diversity should be accomplished, it helps both the individual and the company.

Does your company offer adequate diversity of work?

D12: Not applicable - I am not now a Civil Engineer - don't have to be to be in ACSE.

B10: Question #10 needs to be corrected since commuting time will be different for driving and mass transit.

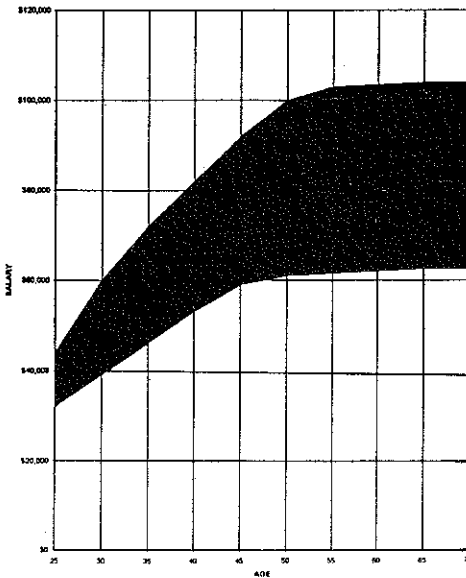
Comment: Ask whether employers support participation in professional societies, why/why not, and whether they pay all or part of dues for such membership.

Should ASCE be more aggressive in limiting engineering work by non-engineers? Does engineering education focus too much on theory, not enough on practical aspects.

D11: It took me 12 months to find a job in Civil engineering after I left my last job. This seems to indicate to me that there is a surplus in the number of people in my age group and experience in the Phila. area.

Comment: Define "true engineering work" in D2.
Comment: No one should be able, legally or morally, to use the title Engineer who does not have degree and license.

SALARY RANGE



Job Opportunity

(Continued from Page 4)

appointment; have at least five (5) years responsible post-graduate experience in one or a combination of the following areas: planning, design and construction of highways, streets, water distribution, wastewater collection or other Public Services projects, planning, design and construction of private development projects or other closely-related engineering experience.

How to Apply:

applications and formal requests for applications will be accepted and received at the Personnel Division, City Hall, 100 North Andrews Avenue, 3rd Floor, Fort Lauderdale, Florida until October 28, 1996. For further information, call Sharon Liebowitz, Personnel Analyst at (954) 761-5306.

FUNNY BONE TO PICK

Engineers Thornton, Goldberg and Brady get in the company car for a trip to a job site.
Thornton: Does anyone see the 25-foot tape I left in the car yesterday?
Goldberg: I don't see anything. It probably grew legs and walked away.
Brady: It probably did. It had 25 feet.

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1996 ACI AWARDS COMPETITION

Honors in five categories of outstanding concrete structures were handed out at a sold-out event during the American Concrete Institute Delaware Valley Chapter's Fifth Annual Awards Competition. The program is intended to recognize excellence in concrete in the built environment, and to promote an appreciation of excellence in concrete design and construction among the industry and general public.

The recognition plaques for entries from 11 counties in southeastern Pennsylvania and the state of Delaware were presented by Chapter President Noli Alarcon.

Top honors were awarded to: **Module 6 Garage/Utility Plant**, Philadelphia, PA (precast concrete building systems); **Walnut Street Bridge Terminus**, Philadelphia, PA (cast-in-place frame construction); **Chesapeake and Delaware Canal Bridge**, (concrete bridges); **Philadelphia Criminal Justice Center**, Philadelphia, PA (architectural concrete/precast cladding); and **Cedarbrook Hill Apartments, Building No. 1**, Wyncote, PA (concrete restoration and rehabilitation).

A special award for historical recognition was presented for **International House**, Philadelphia, PA. Constructed of exposed, poured-in-place concrete, the building's architecture is a direct structural expression of the social hierarchy and mission of International House. Concrete was chosen as a material with permanence that would stand the test of time, and to allow for visual continuity as one moved from the exterior through the interior street within. The new home proposed for the International House in the mid 60's was intended to be a place where American and foreign students would live together in surroundings where the variety of cultures represented would be on constant display. Since public areas were treated like outdoor spaces, the use of poured concrete throughout was fundamental to achieving continuity of surface, and its inherent plasticity enabled the architect to design a vast variety of forms, ranging from cellular rooms to great 60' high piers and a 12' high vierendeel truss to transfer loads to the upper levels of the building. International House is considered by many to one of Philadelphia's most outstanding examples of poured-in-place concrete construction.

WORDS FOR THOUGHT

He who cannot forgive others destroys the bridge over which he himself must pass.

William G. Richards, P.E.
 Vice President



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NEWS OF MEMBERS

Reserve Officers Honor Tantala

Philadelphia Chapter 43 of The Reserve Officers Association of the United States, presented an award to Lieutenant Colonel **Albert M. Tantala** (USAR (Ret)), for his contributions, efforts, and dedication to the ROA/ROTC Program. Colonel Tantala has been the Chapter 43 liaison officer for the University of Pennsylvania, Drexel University, Valley Forge Military Academy, LaSalle University, and Rowan College. Colonel Tantala is also Past President and longtime Secretary of Chapter 43. Al is Past President of the Philadelphia Section, ASCE (1986-1987).

RESOLVE TO ATTEND ALL MONTHLY SECTION MEETINGS AND FUNCTIONS... AND INVITE YOUR CLIENTS, ASSOCIATES AND COLLEAGUES TO COME ALONG WITH YOU!

April Dinner Meeting

(Continued from Page 3)

mainland, in Hawaii and other lands. He detailed award processes, usually to the lowest responsibly-evaluated contractor; financial procedures, special regulations, and legislation required for necessary real estate acquisitions.

Certain projects, noted Mr. Buonaccorsi, require prime bidders to conduct pre-design site investigations. Government agencies – such as the Office of Management and Budget – usually control the purse strings.

Question and Answer Discussion

Many pertinent and interesting comments and questions from members of the audience on this relatively recent concept of contract award procedures in major Government Departments, particularly the Department of Defense, were addressed forthrightly by our speaker.

Gifts of Appreciation were presented to Mr. Buonaccorsi by ASCE President Bill Richards and SAME Vice President Paul Brott for his excellent presentation.

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Chadds Ford, PA 19317
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Join Management

(Continued from Page 2)

tion; and coordinated tours of several of Philadelphia's major construction projects. If you are interested in sharing your ideas for our 1996-97 program, please contact **Dennis MacBride**, Chairman, at **(215) 580-7084**.

IMPORTANT! 1996-1997 MEETING NOTICES

MARK YOUR CALENDAR for the dates of the Philadelphia Section, ASCE monthly meetings and social functions, as follows: (Check each upcoming edition of THE NEWS for additional details, possible date and topic changes.) THIS IS A TENTATIVE LIST.

ALL DINNER MEETINGS (Except as noted)

Cocktails - 5:30 p.m. Dinner - 6:30 p.m. Meeting - 7:30 p.m.

STUDENTS: All dinner and/or luncheon charges one-half price. If you prefer, you are welcome to attend all meetings after dinner or luncheon, at no charge.

Thursday, October 10, 1996 - Dinner Meeting, Drexel University Grand Hall, Creese Student Center, Chestnut St., West of 32nd St., Philadelphia, PA
"Continuing Professional Education in the 21st Century", Dr. Constantine Papadakis, P.E., President, Drexel University
Drexel University Night

Thursday, November 14, 1996 - Joint Dinner Meeting with Delaware Valley Chapter, American Public Works Assn. (APWA), Williamson's City Line
"The Avenue of the Arts - South Broad Street Renewal", Joseph R. Synchron, P.E., Chief Engineer & Surveyor, Bureau of Surveys & Design, Phila., Dept. of Streets (Past President, Phila. Section, ASCE)

Thursday, December, 1996 - Field Tour of Consolidation Terminal B-C Project, Phila. International Airport (PHL). Date, time & arrangements to be announced. Watch THE NEWS

Wednesday, January 15, 1997 - Joint Dinner Meeting with Delaware Valley Section, American Society of Highway Engineers (ASHE, Reading Branch, Phila. Section, ASCE • Holiday Inn, King of Prussia, PA
"Central Artery and Boston Harbor Tunnels", Robert Albee, P.E., Director of Construction, Massachusetts Dept. of Highways

Thursday, February 13, 1997 - Joint Dinner Meeting with South Jersey Branch, new Jersey Section, ASCE, Harbor League Club, Camden, NJ
"Walt Whitman Bridge Rehabilitation", Robert Box, P.E., Chief Engineer, Delaware River Port Authority (DRPA).
Swarthmore College Night

Thursday, March 13, 1997 - Joint Dinner Meeting with Delaware Valley Chapter, Construction Management Association of America (CMAA) • Williamson's City Line
Subject and speaker to be announced
Phila. Section, ASCE Past Presidents to be honored • Widener University Night

Thursday, April 10, 1997 - Joint Dinner Meeting with Phila. Post, Society of American Military Engineers (SAME) • Williamson's City Line
"The Fastship Program", (speaker to be announced)

Friday, May 2, 1997 - Annual Spring Dinner Dance • Sugarloaf Conference Center, Chestnut Hill, PA

Friday, May 16, 1997 - Annual Golf Outing
Location and details to be announced. Watch THE NEWS!!

SERIOUS THREAT TO EMPLOYER PAID EDUCATIONAL ASSISTANCE

The tax exclusion for employer paid educational assistance is once again in trouble. The powerful House Ways and Means Committee is considering a plan, as part of a major and unnumbered tax bill, to narrow the application of the tax exclusion for employer provided educational assistance benefits under Section 127 of the Internal Revenue Code. This exclusion, which expired after December 31, 1994, allows individuals to re-

ceive up to \$5,250 in annual, tax-free employer paid education assistance benefits.

IMMEDIATE ACTION REQUESTED

Please write letters today to your Congressional Representative and both U.S. Senators urging them to support legislation to extend the tax exclusion for Employer Paid Educational Assistance in its present form (H.R. 127/S. 1095) and oppose any effort to exclude graduate level courses.

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