AACE International University Outreach

AACE Rising Professionals

Committee (2020)

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AACE International – University Outreach

Overview of Careers in Project Controls

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Project Controls

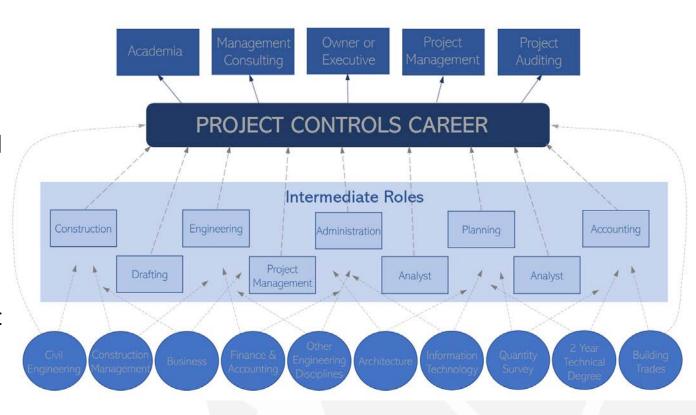
- Project Controls is the practice of keeping projects on-track, on-time and within budget
- Control of cost, risk, quality, communication, time, changes, procurement, and human resources
- Project Controls professionals can be responsible for projects, programs, or portfolios that contribute to an organization's bottom-line
- Project Controls practitioners serve to mitigate business risk





The "Accidental" Profession

Project Controls professionals emerge from varying backgrounds and experiences and because it is often a lateentry profession, many students are unaware of it as a career choice





Project Controls Disciplines

- Cost Engineering
- Planning & Scheduling
- Cost Estimating
- Earned Value Management
- Claims & Dispute Resolution
- Decision & Risk Management
- General Project Management



Cost Engineering

Cost Engineering is the application of scientific principles and techniques to problems of estimation; cost control; business planning and management science; profitability analysis; project management; and planning and scheduling.



Source: AACE TCM Framework



Planning & Scheduling

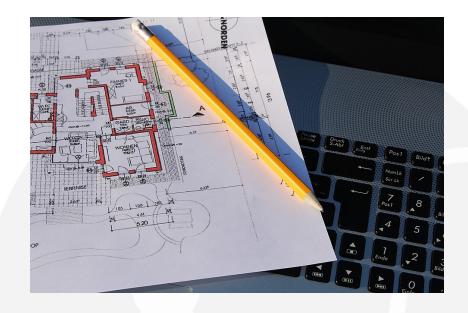
The Planning and Scheduling Professional's duties are to assist the project management team in developing, monitoring, and updating an integrated project plan and schedule so that the project may be executed in the most efficient manner possible.





Cost Estimating

Project cost estimators predict the cost of a project for a defined scope, to be completed at a defined location and point of time in the future. Cost estimators assist in the economic evaluation of potential projects by supporting the development of project budgets, project resource requirements, and value engineering.



Source: AACE Recommended Practice 46R-11



Earned Value Management

Earned Value Management (EVM) integrates scope, schedule, and cost along with budget and performance measurement within a project framework. It is a method for project progress measurement analysis and control that combines work scope, schedule, a resource evaluation to enable objective comparison of the planned schedule of the project to the work completed along with its actual costs.



Source: AACE Recommended Practice 81R-13



Claims & Dispute Resolution

Cost and dispute resolution (CDR) professionals are involved in the making or reviewing of claims on projects. This engagement may range from preparation to analysis and resolution of claims. CDR professionals are actively involved in the management, mitigation, and resolution of project disputes.





Decision & Risk Management

Decision and risk management (DRM) requires knowledge ranging from analytical to socio/psychological to management. DRM is practiced within the context of all the processes and practices of total cost management (TCM). All TCM practices have elements of uncertainty and the need to make some decisions, and interfaces with all the associated disciplines working in a TCM process.

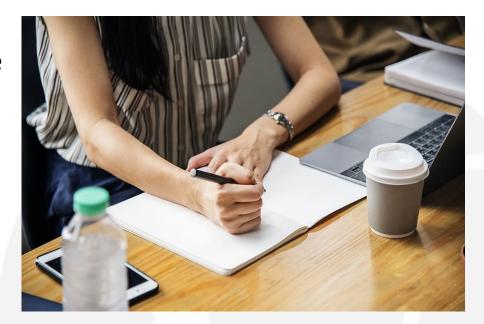


Source: AACE Recommended Practice 71R-12



General Project Management

Project management professionals are responsible for the health and maintenance of a project's plan and execution. Project management positions employ a wholistic approach of all project controls disciplines to deliver successful projects that complete on-time and onbudget.





Common Traits of Project Controls Professionals

- Aptitude in Engineering, Economics, Law, Statistics and Probability, Contracts, Logistics and Optimization, Finance
- Excellent organizational skills
- Ability to communicate technical topics in written and oral formats
- Highly motivated and ambitious
- Analytical thinkers who like to solve complex problems
- Team builders with interpersonal skills
- Self-regulation and empathy



Common Career Paths

| PO | SSIBLE CARE | ER PATHS TH | ROUGH PROJ | ECT CONTRO | DLS |
|---|---|-----------------------|-----------------------|---------------------|----------------------------------|
| | | CEO & TOP N | ANAGEMENT | | |
| Corporate | EXECUTIVE MANAGEMENT | | SPECIALIZATIONS | | AACE |
| Mentoring | Business Unit Director | | •Claims Management | | Service |
| Volunteerism | •Program Manager | | Contract Management | | Volunteerism |
| Corporate | Project Director | | •Risk Management | | AACE |
| Board | | | Value Management | | Board |
| Membership | | | | | Membership |
| Professional Association Committees | PROJECT CONTROLS MANAGER | SCHEDULING MANAGER | ESTIMATING MANAGER | PROJECT MANAGER | AACE Committee Membership |
| MS/MBA | LEAD COST ENGINEER | LEAD SCHEDULER | CHIEF ESTIMATOR | CONST MANAGER | AACE Certification |
| Professional Certification or Registration | SENIOR COST ENGINEER | SENIOR SCHEDULER | SENIOR ESTIMATOR | RESIDENT MANAGER | AACE S & K Courses |
| CCT AC EIT | COST ENGINEER | SCHEDULER | ESTIMATOR | FIELD ENGINEER | AACE DISTANCE LEARNING |
| Professional Organizations (Student Membership) | Bachelor of Science (Construction, Engineering, or Business) | | | | AACE STUDENT SECTIONS |

Source: Randy R. Rapp, Enhancing Professionalism in Construction Project Controls, AACE International (AACE), Morgantown, West Virginia

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Benefits of a Career in Project Controls

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Benefits of Project Controls Career

Benefits at a Glance

- Rewarding for analytical problem solvers
- Not stuck behind a desk mix of office and project field cultures
- Work on multiple projects at one time
- Exposure to a variety of projects and project types
- Work at the intersection of the build environment and data analytics



E Benefits of Project Controls Career

Benefits at a Glance (continued)

- Transferable skills from industry to industry
- Opportunity for significant influence early in your career
- Be a virtual builder of time, money, and space
- Potentially lower stress levels than tradition project management roles
- Job security and salary



AA@E Benefits of Project Controls Career

Your Legacy Footprint





©E Benefits of Project Controls Career

Average Salary of Project Controls Disciplines



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Introduction to AACE

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AACE International is the Association for the Advancement of Cost Engineering.

With 7,000 members in 100 countries, AACE International has been serving the total cost management community since 1956. We are committed to the constructive exchange of ideas between members, development of technical guidance and quality education and recognition of subject matter experts. Our members work in a variety of disciplines and across all industries.

OUR MISSION

AACE members drive projects to complete on time, on cost, and meet investment and operational goals. We arm our members with the technical tools and expertise to support successful projects and programs.



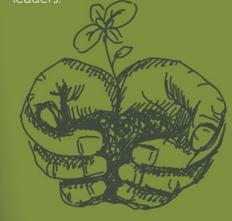
OUR VISION

To be the gathering place and source of thought leadership for professionals who drive successful project and program delivery.



OUR VALUES

For project and cost controls professionals who are seeking to learn and demonstrate the expertise to ensure successful project outcomes, AACE International is the only source for superior technical resources and connection to industry thought leaders





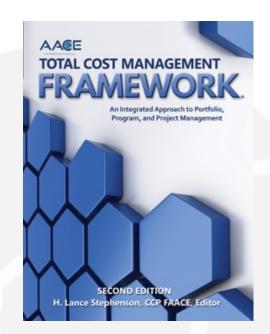
History

- Founded in 1956 by 59 cost estimators and cost engineers at the University of New Hampshire
- Charter member of the Council of Engineering and Scientific Specialty Boards
- Over 7,000 members around the world across over 100 different countries
- Meadquartered in Morgantown, West Virginia.



Total Cost Management (TCM)

- TCM is a systematic approach to managing cost throughout the life cycle of any enterprise, program, facility, project, product, or service.
- The TCM Framework®: An Integrated Approach to Portfolio, Program and Project Management is a structured, annotated process map that for the first time explains each practice area of the cost engineering field in the context of its relationship to the other practice areas including allied professions





Benefits of Membership

- Access to industry leading technical publications, recommended practices, and the TCM framework
- Networking conferences, local sections, online communities, and special interest groups
- Professional development continuing education seminars, AACE sponsored training, AACE certification and study guides
- Career Resources and Mentoring
- On average, AACE members earn \$12,500 more annually than nonmembers (Source – AACE Salary Survey)



Certifications

- Technician Level Certifications
 - Certified Cost Technician (CCT)
 - Certified Scheduling Technician (CST)



- Certified Cost Professional (CCP)
- Certified Estimating Professional (CEP)
- Earned Value Professional (EVP)
- Planning & Scheduling Professional (PSP)
- Expertise Level Certifications
 - Certified Forensic Claims Consultant (CFCC)
 - Decision & Risk Management Professional (DRMP)





Student Membership

Student membership is open to individuals enrolled as a full-time undergraduate student (associate's or bachelor's degree) (minimum 12 hours/semester) in a college or university. Fulltime master's degree graduate students* are also eligible for the student membership rate.

Student Membership (all dues are non-refundable)

| Quarter based upon the date you join | Dues | | |
|--------------------------------------|----------------------|--|--|
| Jan-Sep | \$65.00 | | |
| Oct-Dec* | \$65.00* | | |
| *13-15 month membership | \$0 for current year | | |

+ \$65 for next year (4th quarter dues are subject to change)



Student Membership





Women in Project Controls Committee

AACE's Women in Project Controls Committee (WPC) is open to any/all members interested in helping women advance their careers in the total cost management field.

- AAGE
 WOMEN IN
 PROJECT
 CONTROLS
 COMMITTEE
- Molds WPC Presents webinars that are free to members and non-members.
- Features WPC members in the Source magazine.
- Meetings are held virtually via teleconference.



Rising Professionals Committee

AACE's Rising Professionals Committee (RPC) aims to provide an engaged community of up and coming project controls professionals to develop and influence the project controls industry through practice, awareness, and innovation.



Goals:

- Serve as a resource for rising professionals in the project controls industry and within AACF.
- Attract younger membership into AACE.
- Influence the modernization of AACE.
- Mission includes mentoring, university outreach, and content production.



AACE Membership Employers

















































Marathon Oil









Mortenson













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