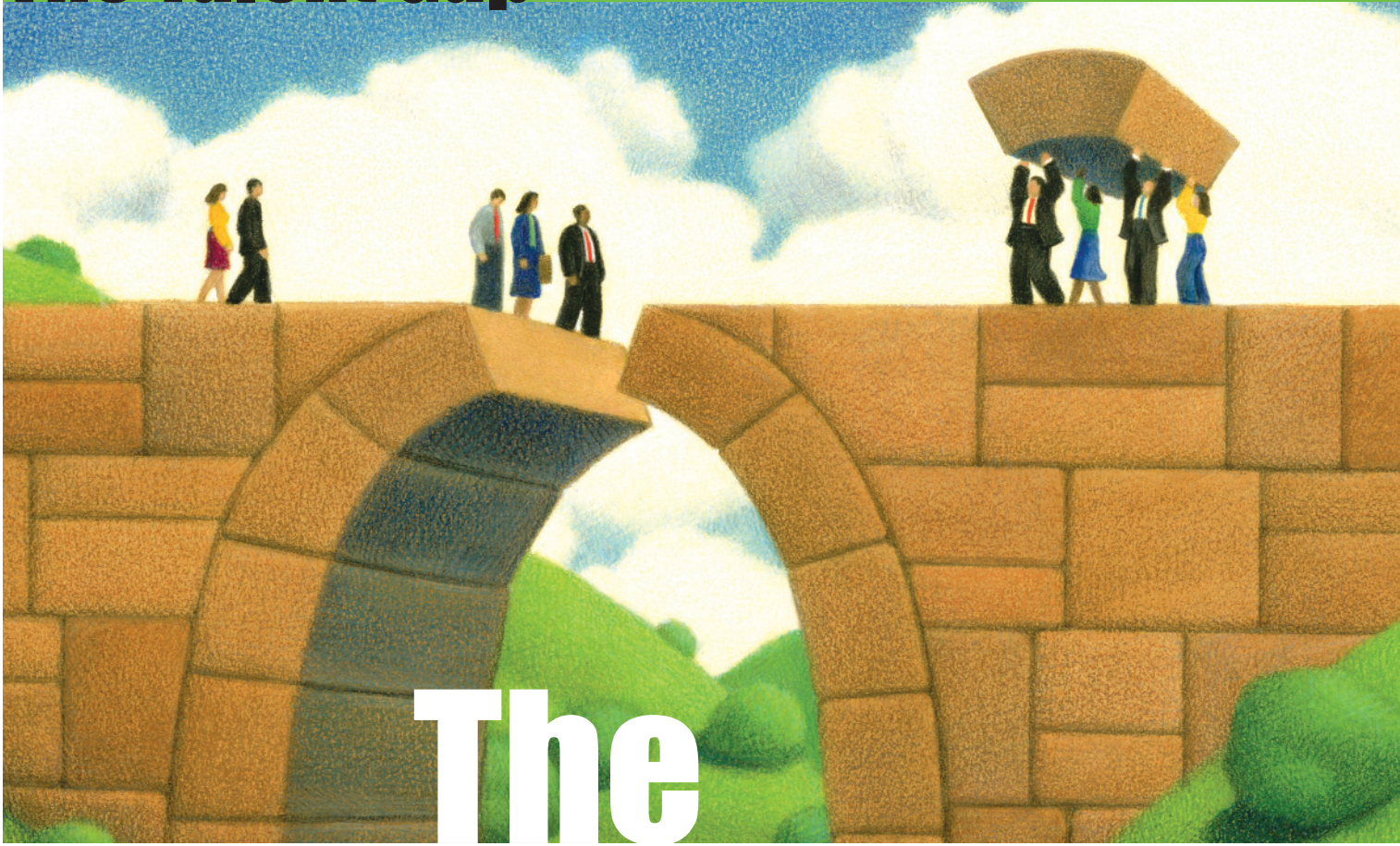
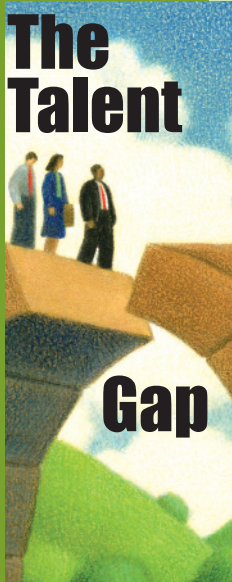


The Talent Gap



The GROWING GAP Between Project Manager Supply and Demand

{ 1.2 million job openings annually
in project-oriented occupations }



All monetary figures in U.S. dollars unless otherwise indicated.

despite world economic woes, project managers can take comfort in the fact that they are part of a profession that is in demand. A number of reports by economists and researchers indicate that global demand for individuals

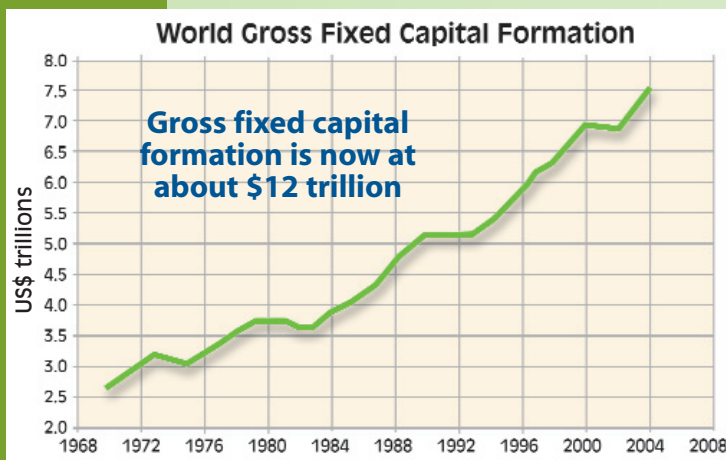
who are appropriately educated in the principles and tenets of project, program and portfolio management will increase dramatically over the next decade. This is due in large measure to the growth of projectized industries.

Evidence of this growth is the amazing increase in the number of project managers who hold PMI's Project Management Professional (PMP)[®] credential. In the last nine years, the number of PMP[®] credential holders has grown by more than 1,000 percent—to over 330,000 people.

economies, despite the current global economic downturn. A report in *The McKinsey Quarterly* said that \$12 trillion—or one-fifth of the world's GDP—will be invested in projects each year in the next decade.

Gross fixed capital formation is now at about \$12 trillion, com-

A 2008 study by Anderson Economic Group reported that overall demand for workers in project-oriented occupations is growing faster than in other occupations. The study estimates that employment in project-oriented occupations across all industries will grow 1.5 percent from 2006 to



The world economy is increasingly dominated by projects. Budgets represented by projects are growing at a phenomenal rate, particularly in developing

pared with \$2.6 trillion about four decades ago. This figure, one of the measures of economic growth used by the World Bank, primarily comprises large infrastructure projects such as construction of roads, hospitals, schools, etc.

A recent study published in the *Journal of Academy of Business and Economics* found that percentage increases of fixed capital growth are even more dramatic in emerging economies such as China and India.

2016, compared to 1 percent growth for total employment.

The study also established that there would be an even greater demand in projectized industries. These are defined as industries driven by projects such as manufacturing, construction, pharmaceutical, IT and IS. Because they are growing faster than the overall economy, these industries are hiring more project employees, and are offering higher average pay for project-oriented workers (annual salaries of \$89,000 vs. \$49,000 for non-project-oriented workers).

The study also predicts that from 2006 to 2016 the GDP of these industries will grow at

an average of 5.6 percent, compared to 3 percent for total GDP growth. There will be 1.2 million job openings yearly in project-oriented occupations. There is confidence in the data that the current global economic situation will not affect this long-range growth.

The Anderson study also forecasts that by 2016, demand for employees in projectized industries will increase to 32.6 million, an increase of 33 percent over the demand in 2006. Of these employees, 10.2 million will be new workers, which means that roughly 31 percent of total project-oriented workforce will need to be newly trained by 2016.

Falling Supply

At the same time, the supply of qualified project professionals will be falling during the next decade. Many experienced project managers are nearing the retirement age and not enough individuals are entering the profession every year.

Many of the individuals actively working as project managers are now at retirement age. In the United States, the General Accounting Office estimates that the current global workforce will be down by 30 percent over the next 10 years. This mirrors overall trends in the world's labor force.

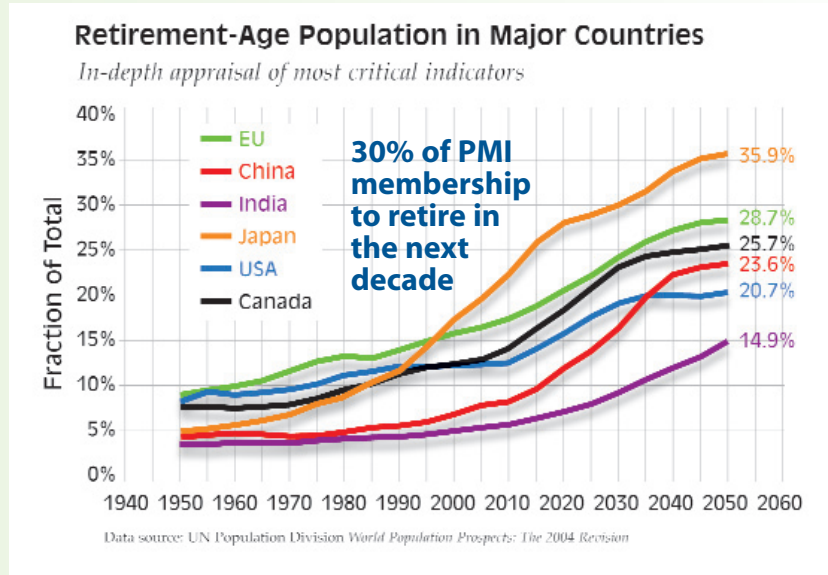
In 1950, the fraction of the total population in advanced economies who had reached the retirement age of 65 years or older was well under 10 percent. By 2005, it had grown dramatically from the 1950 levels: from 8 percent to 12 percent in the United States, from 8 percent to 13 percent in Canada, from 5 percent to 20 percent in Japan, and from 9 percent to

17 percent in the 25 countries that today make up the European Union.

By 2050, this fraction will reach 21 percent in the United States, 26 percent in Canada, 29 percent in the EU, and 36 percent in Japan, according to UN projections last updated in 2004. Even in India and China, the world's two largest emerging

of project managers in Australia will retire in the next decade. Nearly 50 percent of AIPM's membership falls within the 40 to 54 year age group, and another 10 percent who are in the 55 to 60 year bracket face imminent retirement.

Because the profession is extremely young (formally established in the



economies, the percentage of those at retirement age is projected to rise from less than 5 percent to 15 percent in India and 24 percent in China.

Of PMI's 300,000 members, 35 percent are in the 40 to 49 year age bracket, 20 percent are in the 50 to 59 year bracket, and 3 percent are in the over 60 bracket. In the next decade, PMI may see 30 percent or more of its members entering retirement.

The Australian Institute of Project Management (AIPM) estimates one-third

of project managers in Australia will retire in the next decade. Nearly 50 percent of AIPM's membership falls within the 40 to 54 year age group, and another 10 percent who are in the 55 to 60 year bracket face imminent retirement.

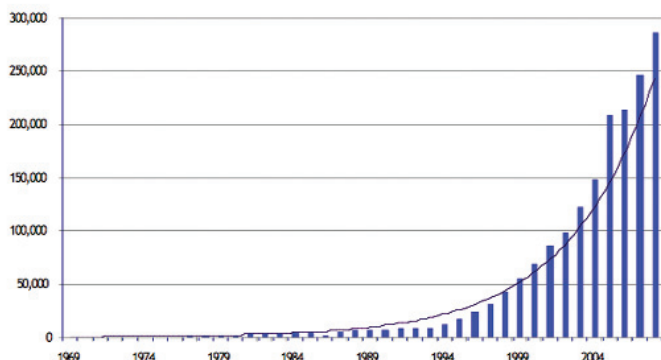
Talent Gap May Put World Economy At Risk

The shortage of skilled project professionals will affect global economy. The Anderson Economic Group study estimates that by 2016, spending in projectized industries will increase by \$4.5 trillion, and a large amount of this will be at risk due to the lack of

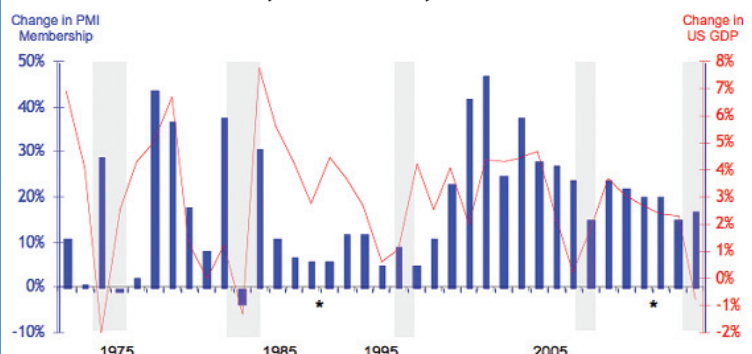
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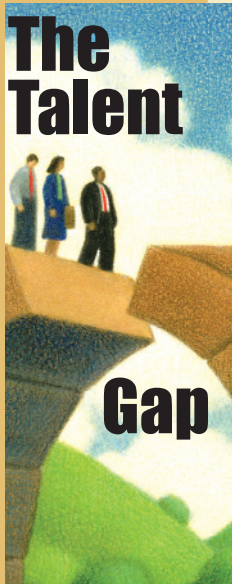
Does Project Management Track the Economy?

PMI has grown steadily through 40 years and 4 recessions.



There is only a weak link between the growth of PMI (blue bars) and the economy (red line). Gray bars are recessions.





Continued from supplement page 3

skilled project managers.

Anderson recently validated the global project management talent gap by looking at 10 global economies: Australia, Brazil, Canada, China, Germany, India, Japan, Saudi Arabia, United Arab Emirates and the United

Kingdom. The economies were selected for their potential growth of projects and demand for project management professionals.

The study identified 85 project-oriented occupations and 15 projectized industries. It established that the economic impact of not

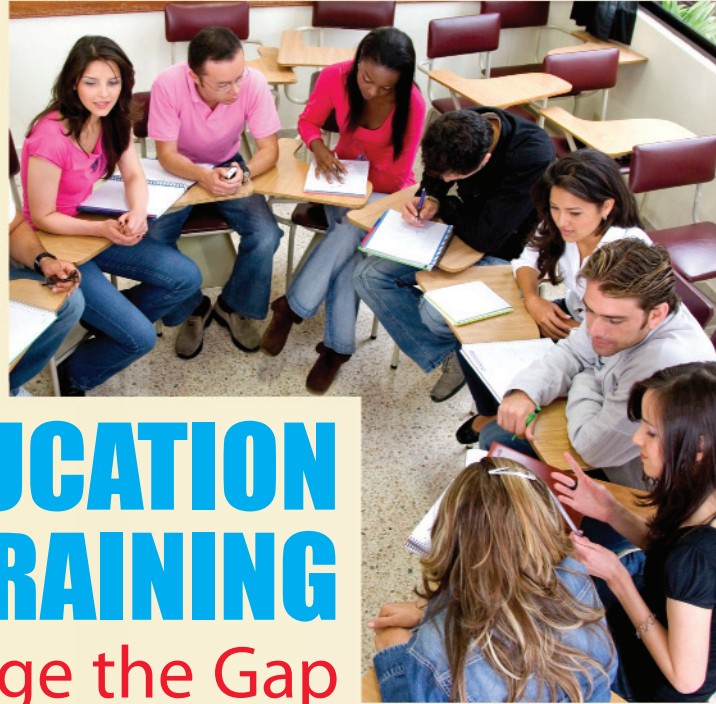
filling 1.2 million new project management jobs a year globally is significant. Of the \$4.5 trillion increase in project investment by 2016, about \$200 billion will be at risk from project management skills shortages.

academic institutions that develop project management programs in the next decade will enjoy a steady flow of students who will be highly employable upon completion of their courses. These institutions will also add faculty and enrich the intellectual fabric of their offerings.

By offering project management programs, schools will differentiate themselves from the competition and help mitigate the risks to the world's economy posed by the alarming supply-demand crisis in the project management profession.

Many organizations, especially large corporations and government agencies, have seen the looming crisis and taken it seriously enough to establish their own in-house project management training programs or to support the growth of academic programs in project management.

For example, the U.S. National Aeronautics and Space Administration has established the NASA Academy of Program/Project & Engineering Leadership, while Huawei Technologies Co. Ltd., Siemens, the Boeing Corporation, IBM and numerous other corporations have corporate universities. While these programs often align with university partners for research and teaching needs, the necessity of their



EDUCATION AND TRAINING to Bridge the Gap

creation also emphasizes the fact that academic offerings may be insufficient for organizational needs.

Over the last several years, encouraged by the Chinese government, more than 103 engineering, construction and business schools in China have created master's level programs in project management. Project management is definitely emerging as a growing academic discipline, as reported by PMI's 2008 global census of higher education institutions.

In 1994, there were only two bachelor's and nine master's degree programs recognized in project management globally. Today there are over 2,500 schools teaching nearly 5,000 courses in project, program and portfolio management around the world.

The 11 project management degree programs in 1997 have grown to more than 600 such programs and an additional 250 or more certificate programs globally.

Project management-related papers are now regularly published in the top 18 management and business journals. The study, "Impact on Project Management of Allied Disciplines: Trends and Future of Project Management Practices and Research," reported that four top management and business journals (*IEEE Transactions on Engineering Management*, *Management Science*, *Long Range Planning*, and the *Harvard Business Review*) explored project management subjects in over 50 percent of the total papers they published.

ADVANCED DEGREES: One Way to Meet the Need

University programs on project management are growing in popularity as more students discover project management, and as existing project management practitioners enhance

their careers with further training and education. These charts show the growth in three programs accredited by the PMI® Global Accreditation Center for Project Management (GAC):

More information on GAC-accredited programs can be found at www.PMI.org/accreditation.



Project Management Program Student Enrollment

| | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|--|---------|---------|---------|---------|
| University of Maryland, United States | 613 | 775 | 1048 | 1266 |
| Boston University, United States | 276 | 669 | 1066 | 1642 |
| La Salle - Ramon Llull University, Spain | 94 | 115 | 124 | 160 |

What the Faculty and Deans are Saying

“a special office within the French Ministry of Budget in charge of the ‘modernization of the state’ has been created recently, involving million to multi-billion [euro] projects and their management. Due to the need for project management talent, the special office signed a cooperation agreement with ESC Lille in March 2009 in order to develop intensive collaboration. This will include the recruitment of masters/MBA students, internship offers to current students, training of the workforce and of the project managers, consulting and research work at various lev-



els (masters, MBA and PhD)...”
 —Christophe Bredillet, PhD
 Director of International Postgraduate Programmes, ESC Lille, France

“In times like these it’s more than ever crucial for a company to manage their resources with maximum efficiency. This requires a far more project-oriented company structure with clearly assigned responsibilities. It’s obvious that more highly qualified project managers are required—our university makes an important contribution to cover this need by offering a GAC-accredited master’s degree in systems and project management for young business professionals.”

—Professor Dr. Thomas K. Stauffert
 University of Applied Sciences at Landshut, Germany

“In today’s complex global environment, the most successful project managers will be those who go beyond the primary tools and techniques of the trade to apply critical thinking in reaching solutions that are consistent with organizational strategic goals and objectives.



Formal education locking hard and soft skills together with general management principles will be a must.”

—Frank J. Cesario, PhD, PMP
 Program Dean
 DeVry University and Keller Graduate School of Management

What Students Getting Advanced Degrees Are Saying

“to some project management practitioners, bridging the talent gap means going to school for advanced degrees in project management. This is why they are doing it (or did it recently), in their own words:

Dianne O. Harris, MSM, completed her master’s of science in management—project management degree in 2005. At the time she was working on a design project with CH2M Hill

at one of the largest wastewater treatment plants in the world, near Washington, D.C., USA. “If you are moving toward leadership positions, a post graduate degree in project management is valuable if you have project experience,” said Ms. Harris.

Luis D. Argüello Araya, PMO director at Aura Interactiva (Costa Rica), is getting his master’s degree in project management this year. He took a project management program spon-

sored by the Costa Rica Institute of Technology prior to starting his master’s degree program. He sought the degree in order to have a solid background on this field and also to improve his professional profile.

Mr. Argüello expects some career benefits from his degree. “I will have solid foundations to run the PMO of the company I work for,” he said. “I’m mostly oriented to manage IT and e-learning projects and I also have

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Continued from supplement page 5

availability to travel or to manage projects in a remote way.”

The president of his company, who is also his direct supervisor, encouraged Mr. Argüello to get his degree. He recommends others interested in career growth to consider getting an advanced degree.

“Having a solid background in project management can open a lot of doors and you can get a broader vision of the business of a company,” he said.

Leonardo Abeles, MPM, PMP, has a master’s degree in project management from La Salle Business School in Barcelona,



Spain, and in June, he will finish an advanced master certificate in project management from the

ESI Institute and George Washington University. He believes project managers are “born” (with leadership attributes) as well as “made” (with the proper formal education).

He has seen project managers appointed on the basis of technical expertise alone, and notes that the results of unprepared project managers are projects that are behind schedule and over budget, with unsatisfied stakeholders.

“I can say that the master’s degree in project management and the PMP certification changed my life and made me a fulfilled person from the professional point of view,” said Mr. Abeles.

Shortly after obtaining his degree and PMP credential, Mr. Abeles was asked to join La Salle University to teach project management courses to master’s degree students. After a year he was offered a senior project manager position at Acision in the Netherlands. At Acision, he is leading the process to build a

project management office in the business unit department.

Mr. Abeles’ career vision includes being an executive director responsible for all projects, program and portfolio management in the company, setting the guidelines for the correct performance of projects in the company, and establishing the basis for transforming Acision into one of the world’s leading companies in the way projects are carried out.

He also sees himself as a mentor, teacher and high-level consultant in the project management profession in the near future. And he may study for his PhD.

“Project management is a profession like every other profession,” said Mr. Abeles. “By performing project management in a non-professional way, you can cause a lot of financial damage to your company, cause image damage, and spoil the relations with customers and other stakeholders for a long time. Having the right education and accreditation in project management will [enable you] to avoid most of the predictable pitfalls. Since project management is a mixture of science and art, success will never be guaranteed 100 percent, but by following a formal educational path you will be able to narrow the chance for failure, and extend the path and chances for success.”

Warren Glore, senior test engineer, Legacy Solutions Group—Special Projects, said career growth to him



meant seeing the big picture on projects.

“I have been involved in projects almost all my adult

life, including 22 years in the U.S. Air Force and almost 10 years working for LSI Corporation,” he said. “In every project I have been involved in, I have only had control over a very small piece of the

project. My motivation [for seeking a master’s degree in project management] comes from the fact that I would like to have a bigger piece of that pie. I want to be able to see a project from its inception to its conclusion.”

Mr. Glore will graduate in August with a master’s degree in information technology in project management from the University of Maryland. He recommends others seek advanced project management degrees.

“There is something about taking the classes and the research that is included that rounds a degree candidate out,” he said. “I have done enough research to know how to find information if I need it. This is one area that non-higher degree candidates miss out on.”

Oula Ahmad is involved in an MBA program specializing in project management.



“When I selected this field as my profession, my main focus was how to expand my education

and provide effective services,” she said. “Being a successful project manager needs a lot of effort and patience.... Building and improving my skills will benefit me in my long-term career path and give me the ability to provide the right services in the right time.”

Ms. Ahmed was born and raised in Dubai, United Arab Emirates.

“I sensed the importance of project management and its strategies of building businesses between the east and the west,” she said. “This category is very important for leaders to understand, and to be an international project manager you must have a long-term vision for long-term benefits.”

Registered Education Providers Also Show Growth

Training programs in PMI's Registered Education Provider (R.E.P.) program provide a major part of the courses and training within the project management profession all over the world.

The R.E.P. program, now 10 years old, has grown from a system to identify trainers who could prepare practitioners for the PMP® examination and help them maintain their credentials to a program that now serves the diverse training needs of organizations and individuals. The program educates more than 800,000 students a year in both online and face-to-face courses. There are over 1,100 training providers in 60 countries around the world and

more than 5,000 courses available.

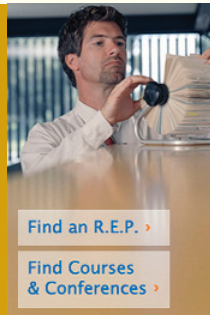
A database on PMI.org simplifies matching training and courses to the needs of practitioners, and an online request for proposal program helps organizations obtain training and professional development programs that will help them with their own talent gaps.



R.E.P.s provided an average of 30 hours of training per student, for a staggering total of 24 million training hours per year! Although 2008 statistics were not available at press time for this supplement, the vast majority of R.E.P.s expect to increase the volume of training they deliver by 25-30 percent over the previous year.

Sixty-one percent of R.E.P.s are "global providers," which means they offer multiple courses to the public. Universities and organizations' internal training departments can also be R.E.P.s. All R.E.P.s are reviewed and audited to assure the best quality training. To find a course offered by a R.E.P., use the convenient database located at www.pmi.org/CareerDevelopment/Pages/Find-a-Registered-Education-Provider.aspx.

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PMI Educational Foundation Helps to Fill the Talent Gap

The PMI Educational Foundation is helping to bridge the talent gap by using donations to deliver programs that will empower the future of project management. The Foundation is expanding educational opportunities for future project management practitioners by:

- Helping primary and secondary school students become successful in life by learning through projects;
- Helping secondary school students learn about project management as a career option and life skill;
- Helping teachers learn about project management and project-based learning for their professional development; and
- Helping students realize their dreams by funding more and greater-value academic scholarships.

Primary and Secondary School and Community Programs

PMIEF is implementing and expanding project management and project-based



learning programs in primary and secondary schools and community-based organizations around the world. The Foundation is working to build partnerships with organizations that share a similar vision of helping children become successful in a world where the best employers are looking for creative and innovative students who have been prepared by learning

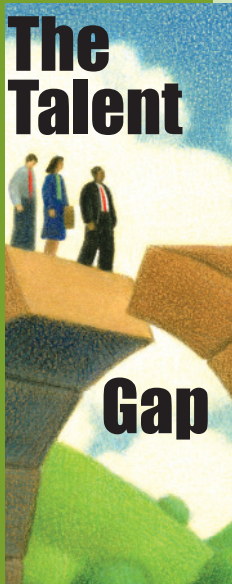
21st century skills, which include project management.

The Foundation is also building resources that are available to PMI members, PMI communities and organizations so they can reach out to their communities and schools to introduce, teach and promote project management as a life skill.

The following materials can be downloaded at no cost from PMIEF.org:

Continued on supplement page 8





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- **Project Management Skills for Life:** www.pmi.org/pmief/learningzone/Com-lifeskills.asp
- **Careers in Project Management:** www.pmi.org/pmief/learningzone/careers.asp
- **Project Management Curriculum for Primary and Secondary School Grades:** www.pmi.org/pmief/learningzone/pmcurricula.asp

PMIEF Scholarship and Awards Program

In 2009, over \$150,000 in scholarships and awards are being made available to graduate and undergraduate students who are studying project management and related fields. The program benefits PMI members, their families and others by helping tomorrow's project management practitioners complete their studies.

Donors to the PMIEF scholarship program include PMI chapters, specific interest groups and colleges, along with organizations that provide products, serv-

ices and solutions for the project management community.

PMIEF handles scholarship administration duties such as marketing, website maintenance, application processing and award distribution. Scholarship recipients are selected by a team of PMIEF volunteers following an established process and using a set of criteria established by PMIEF and each donor. Communities and others that fund scholarships through PMIEF are freed of those administrative tasks.

PMI members are encouraged to spread the word about the PMIEF scholarship program. Scholarship eligibility guidelines and deadlines are provided on PMIEF.org. One application submitted online can be used to apply for multiple scholarships.

Primary and secondary

school teachers can learn about project management at no cost through *Project Management Training Fellowships for Primary and Secondary School Educators*, downloadable from www.pmi.org/pmief/learningzone/TF-Overview.asp.



Get Involved and Make a Difference

Through the generous support of people just like you, the PMI Educational Foundation's programs continue to grow each year.

You can help us bridge the talent gap by joining these very generous donors and help build a better future for others by making a gift today. Your generosity could help a student afford college, give a child an improved chance at success through project-based learning, or help a not-for-profit organization more quickly and efficiently respond to a disaster. Please use the coupon at left and give today.

For additional information about the PMIEF and how you can be involved, please contact Diane Fromm, PMIEF administrator, at diane.fromm@pmi.org, or visit PMIEF.org.

PMI Educational Foundation

EMPOWER

the future with project management™

HELP BRIDGE THE TALENT GAP!

(Please ✓ one)

Make a gift to the scholarship fund. Help university students realize their dream through education.

Or

Make a gift in support of youth programs. Help educate primary and secondary school students about project management.

To make a gift please complete the coupon below and mail it, along with payment, to:

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Newtown Square, PA 19073 USA

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