

## **Project Management Certification Benchmarking Research: 2015 Update**

**Dr. Paul D. Giammalvo, CDT, CCP, MScPM, MRICS, GPM-m**

### **INTRODUCTION**

Since 2010, the author has been publishing an annual report, benchmarking many of the more popular, globally recognized project management certifications against both the US Professional Engineer (PE) license as well as Malcolm Gladwell's "10,000 hour" rule. As over 20,000 copies of the report and the Excel template have been downloaded speaks to the importance of this benchmarking research as the question of "transportability" and "reciprocal recognition" of these credentials is the source of frequent debates.

Some of the key findings from previous year's research shows that at least in the field of project management, Gladwell's "10,000 hours" is too low, with 15,000 hours "level of effort" being closer to what it actually takes to produce a "competent" professional level practitioner. Another important finding is that the world's two most popular certifications, PMI's PMP and Axelos PRINCE2 do NOT qualify as professional level credentials even using the rather low "10,000 hours" advocated by Gladwell. A more positive trend seems to be emerging and that is as more professional societies add certifications, we are moving away from exam only certifications (i.e. PMI'S PMP and Axelos PRINCE2) and nearly all of the newer credentials involve both exams and peer assessments of competency. (i.e. PM's PgMP and PfMP. Green Project Management organization, AcostE and Guild of Project Controls) This is positive in so far as it says the practice of applied project management seems to be maturing in line with other "professions". The other trend which seems to be evolving is based on the fact that the US "Professional Engineer" (PE) license is going to require a Master's degree starting in 2020, many of the higher end, competency based professional credentials (i.e. Green Project Management and Guild of Project Controls) are starting to recognize the value of advanced degrees as being the mark of today's "professional level" practitioner and are building recognition for having earned them into the credentialing process.

For those who are not familiar with the evolution of this model, the benchmarking is based on the "level of effort" it takes to qualify for, prepare for and become certified, the underlying philosophy being the more robust the process, and the more it looks beyond the ability to pass multiple choice exams, the more likely it is to validate that the person holding the credential is "competent".

Essentially, the scoring model upon which this benchmarking is based looks at 12 different components which when added together, yields an overall "level of effort" score:

- |   |        |
|---|--------|
| 1) Total Hours of Work Experience for a person WITH a 4 year degree | = WEXP |
| 2) Standardized Value of a 4 year Degree                            | = BDEG |
| 3) Standardized Value of a Master's Degree                          | = MDEG |
| 4) Standardized Value of a PhD                                      | = PDEG |
| 5) Total Level of Effort to prepare for and take the exams          | = EXAM |
| 6) Additional REQUIRED Training Hours To take the Exam              | = ARTH |
| 7) Matching type questions Add 5% to EXAM score                     | = DIF1 |
| 8) Compound (Case Study Analysis) questions add 10% to EXAM score   | = DIF2 |

- 9) Open ended (long essay) questions >250 add 15% to EXAM score = DIF3
- 10) For those credentials requiring a publishable quality paper,  
(Minimum of 2500 words) as part of the assessment process, we add  
50 hours for each paper REQUIRED = PAPR
- 11) To account for the importance of formal mentoring to the development of  
competent, professionals, we ADD 100 Level of Effort  
hours to those credentials which INCLUDE a formal (signed off) mentoring  
program = SUPRV1
- 12) To account for those credentials requiring an ASSESSMENT by certified  
or qualified ASSESSORS, we have added 50% to the original ATCA score = SUPRV2
- The TOTAL LEVEL OF EFFORT (PSCOR = WEXP + BDEG + MDEG + PDEG +  
EXAM + DIF1 + DIF2 + DIF3 + PAPR + SUPRV1 + SUPRV2) = PSCOR

The certifications are then rank ordered according to their PSCOR or total level of effort required to qualify for, prepare for and earn the credential, with the minimum threshold for a professional level credential being Gladwell's "10,000 hours" but recognizing that this number appears to be too low.

While the author recognizes that Gladwell's "10,000 hour" rule has been and is being challenged on many fronts, by providing a true zero point and the same units of measure (standardized hours of effort) we have created a true ratio scale, enabling us to compare the relative level of effort between any two or more credentials.

For those interested in a more detailed explanation of the mechanics and process of scoring, the 2014 Update <http://pmworldjournal.net/wp-content/uploads/2014/01/pmwj18-jan2014-giammalvo-project-management-credentials-comared-2014update-FeaturedPaper.pdf> explains it in much greater detail and for those interested in using the model to evaluate or compare other certifications, the latest Excel scoring model is accessible under Creative Commons License BY v 4.0 unported at this URL- <http://www.build-project-management-competency.com/download-page/> Line Items #32 and #33.

As the project management credentials were benchmarked and analyzed in 2010 to 2014, and we are seeing many of the newer certifications coming not from project management but from "Project Management Office (PMO) or "project support services" (i.e. "project controls", "cost engineering", "cost estimating", "CPM scheduling" etc) this year's report will be focusing on benchmarking and analyzing those certifications.

Worth emphasizing is this research is being made available at no cost under "Creative Commons License" BY, v 4.0 unported. <https://creativecommons.org/licenses/by/4.0/> Professional organizations are encouraged and will be supported by the author in developing professional level credentials in the field of applied asset, portfolio, program or project management.

**DISCLAIMER- THE DATA ANALYZED IN THIS RESEARCH WAS GLEANED FROM INFORMATION PUBLICLY AVAILABLE ON THE RELEVANT WEBSITES AND/OR WAS PROVIDED BY INTERESTED INDIVIDUALS. IF THERE ARE ANY ERRORS OR OMISSIONS, THE AUTHOR WILL BE HAPPY TO MAKE WHATEVER CORRECTIONS OR ADJUSTMENTS DEEMED APPROPRIATE, UPON RECEIPT OF WRITTEN PROOF FROM AN AUTHORIZED INDIVIDUAL FROM THE ORGANIZATION SHOWING WHERE THE INPUT DATA IS INCORRECT.**

### **ADDITIONAL or NEW CERTIFICATIONS BEING BENCHMARKED FOR 2015**

In the 2014 update, a total of 40 of the most popular or well recognized project management certifications, including those from AACE, Axelos, IPMA and PMI as well as several newer additions, such as those coming from the Green Project Management organization, the ITIL credentials and the International Institute of Business Analysis were featured.

For the 2015 update, based on requests from interested readers, we are ADDING another 26 certifications (in alphabetical order) bringing the total number now being benchmarked to 66.

**American Society of Professional Estimators (ASPE)** <http://www.aspenational.org/> . The ASPE has developed a single level certification, the Certified Professional Estimator (CPE) [http://www.aspenational.org/Certification\\_UnderstandingTheCP.aspx#VJOH4F5AB8](http://www.aspenational.org/Certification_UnderstandingTheCP.aspx#VJOH4F5AB8)

#### **Association of Cost Engineers (AcostE)**

[http://www.acoste.org.uk/template\\_content\\_R.php?page\\_id=326&track=About\\_us](http://www.acoste.org.uk/template_content_R.php?page_id=326&track=About_us) . The AcostE is based in the UK and has developed a 5 level credentialing program, (Enrolled, Registered, Incorporated, Certified Professional and Chartered), which maps against a typical career path progression.

**Guild of Project Controls (GPC)** <http://www.planningplanet.com/guild/careerpath> GPC is UK based, but is unique in so far as it is a virtual professional organization (“Planning Planet” <http://www.planningplanet.com> ) with over 100,000 members worldwide. The GPC has developed a robust 5 level approach which offers 4 different areas of specialty under the broad heading of “project controls” (or for those in IT and telecommunications, “Project Management Office” or “Project Support Services”.) The GPC approach was based on a typical career path progression. The GPC offers a Yellow Belt (Foundation), Green Belt (Proficient), Orange Belt (Advanced), Red Belt (Expert) and Black Belt (Fellow) in 4 areas of specialty- Planning and Scheduling (PS Track), Cost Management (CM Track), Forensic Analysis (FA Track) and Project Controls (PC Track)

**Society for the Advancement of Value Engineering (SAVE)** <http://www.value-eng.org/about.php> SAVE has developed a two level program. You must first obtain your Associate Value Specialist (AVS) followed by an examination, successful completion of which qualifies you as a Certified Value Specialist (CVS)

#### **Project Management Institute (PMI)**

[http://www.pmi.org/Certification.aspx?WT.mc\\_id=Cert2012CertSpecialtyItemsWebgateCertification](http://www.pmi.org/Certification.aspx?WT.mc_id=Cert2012CertSpecialtyItemsWebgateCertification) As PMI has been expanding their certifications, in this update, the two latest PMI credentials- the “Portfolio Management Professional” (PfMP) <http://www.pmi.org/Certification/Portfolio-Management-Professional-PfMP.aspx> and their “Professional Business Analyst” (PBA) <http://www.pmi.org/Certification/PMI-Professional-in-Business-Analysis-PMI-PBA.aspx> have been added to the comparison. As PMI updated the assessment process for their Program Manager credential (PgMP) even though it was covered in previous reports, that too has been updated for the 2015 Report. <http://www.pmi.org/Certification/Program-Management-Professional-PgMP.aspx>

**TOP RANKED PROFESSIONAL CERTIFICATIONS FOR 2015<sup>1</sup>**

Rank Order based on PSCOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Organizational Affiliation: Acronym of Credential:	GPC BB (BS/BA)	GPC BB PhD	GPC BB MSc/M BA	ACostE Certified	GPC RB PhD	GPC OB PhD	GPM- m (PhD)	GPM-m (MS/M BA)	GPC RB (BS/BA)	GPC OB (BS/BA)	GPC RB MSc/M BA	GPC OB MSc/M BA	AAACE CFCC	PMI PFMP	GPM- m (BS/BA)	AIPM- CPPE	ACostE Incorporated	PE LICENS E Non- ABET	PMI PgMP	PE LICENS E ABET	GPC GB Masters	ASEM PEM	IPMA A	INCOSE ESEP	INCOSE CSEP	IPMA B	AAC CCF (CCF)
Required Experience Hours AFTER Bachelors	28000	20000	24000	24000	10000	10000	10000	15000	16000	16000	14000	14000	16000	16000	16000	16000	14000	14000	12000	10000	8000	10000	10000	10000	10000	10000	800
Bachelors (BDEG) Level of Effort	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200
Masters (MDEG) Level of Effort	1920	1920			1920	1920	1920	1920			1920	1920									1920						
PhD/DBA (PDEG) Level of Effort		5160			5160	5160	5160	0													0						
Additional REQUIRED (ARTH) Level of Effort	0	0	0	800	0	0	160	160	0	0	0	0	0	35	160	0	640	24	35	24	0	0	0	0	0	0	0
EXAM Level of Effort	0	0	0	62	155	155	93	62	155	155	155	155	248	124	31	0	62	496	124	496	124	89	0	62	62	0	255
Exam Difficulty Adjustment DIF1 Level of Effort	0	0	0	3.1	7.75	7.75	0	0	7.75	7.75	7.75	7.75	0	0	0	0	3.1	0	0	0	6.2	0	0	0	0	0	0
Exam Difficulty Adjustment DIF2 Level of Effort	0	0	0	6.2	15.5	15.5	0	0	15.5	15.5	15.5	15.5	24	0	0	0	6.2	0	0	0	12.4	8.9	0	6.2	6.2	0	25.5
Exam Difficulty Adjustment DIF3 Level of Effort	0	0	0	9.3	23.25	23.25	0	0	23.25	23.25	23.25	23.25	36	0	0	0	9.3	0	0	0	18.6	0	0	0	0	0	38
PAPR Level of Effort	300	300	300	26	200	200	50	50	200	200	200	200	50	0	50	0	20	0	0	0	50	0	50	0	0	50	50
Formal Mentorship (SUPRV1) Level of Effort	0	0	0	50	100	100	4	4	100	100	100	100	4	0	4	3	40	10	0	10	100	0	16	4	3	5	4
Peer Assessment (SUPRV2) Level of Effort	9	9	9	56	6	5	4	4	9	6	9	6	6	100	4	8	46	0	100	0	4	0	8	0	0	6	0
ACTA Level of Effort	4.5	4.5	4.5	53	53	52.5	4	4	54.5	53	54.5	53	5	50	4	5.5	43	5	50	5	52	0	12	2	1.5	5.5	2
TOTAL CUMULATIVE LEVEL OF EFFORT BEYOND DEGREES	314	7874	2714	1128	8276	8274	14568	4186	720	716	3120	3116	621	437	284	17	932	1031	433	1031	2891	187	86	136	135	67	625
TOTAL PSCOR SCORE	33514	32594	31434	30266	22841	22839	22595	22404	21765	21761	21685	21681	21573	21509	21453	21217	20070	19735	17509	15735	15487	15298	15286	15274	15273	15267	135
RATIO TO ABET PE LICENSE	191%	186%	180%	173%	130%	130%	129%	128%	124%	124%	124%	124%	123%	123%	123%	121%	115%	113%	100%	100%	88%	87%	87%	87%	87%	87%	78%
RATIO AGAINST GLADWELL	335%	326%	314%	303%	228%	228%	226%	224%	218%	218%	217%	217%	216%	215%	215%	212%	201%	197%	175%	157%	155%	153%	153%	153%	153%	153%	136%

Table 1- Certifications which score = > 15,000 hours Level of Effort and/or => ABET PE License.

Table 1 shows us that there are 26 credentials which exceed 15,000 level of effort hours and 18 credentials which EXCEED the level of effort it takes to earn an ABET Professional Engineer (PE) license. This yields an impressive 26/66 or 39% of certifications available for project professionals which require >15,000 level of effort hours and which can be considered to be legitimate “professional” level credentials.

**AND THE WINNERS ARE..... The top ranked certifications for 2015 are:**

**#1- #3 Guild of Project Controls (GPC) “Fellow” or “Black Belt”** level competency based certifications. <http://www.planningplanet.com/guild/careerpath> The Guild of Project Controls is the certification body which has evolved from the 100,000 member virtual “Planning Planet”.

<http://www.planningplanet.com>. As the GPC family of credentials formally recognizes advanced degrees (Masters and PhD) in their assessment model, the scoring slightly favors experience over degrees, which is why a Guild “Fellow” or “Black Belt” with a bachelor degree outranks those with a PhD or Masters. By looking at the bottom 3 rows of values, you can see that with a Total PSCOR of > 30,000 hours of effort, the Guild of Project Controls “Black Belt” credentials score 300% MORE than the 10,000 hours Gladwell advocates to be a “professional” and 200% the level of effort required to earn an ABET PE license. While Planning Planet has been around for 10 years now, the GPC family of certifications is brand new and expects to be “going live” in Q1 2015.

**#4- Association for Cost Engineers (AcostE) “Certified” level.**

[http://www.acoste.org.uk/template\\_content\\_R.php?page\\_id=335&](http://www.acoste.org.uk/template_content_R.php?page_id=335&) The AcostE credentials have been around since 2011 and while the AcostE certifications do not give any recognition for those who hold

<sup>1</sup> Disclosure- the author of this article now serves as the Chair of the Certification Board of the Green Project Management organization and serves as a compensated advisor to the Guild of Project Controls. However, the scoring model was created and published well before becoming involved with either of these organizations.

advanced degrees, they do require 800 hours of specialized courses in lieu of formal degrees. The AcostE favors documented, peer reviewed experience over degrees. With a Total Level of Effort (PSCOR) of >30,000 hours, they exceed the level of effort required to obtain an ABET PE license by 192% and Gladwell's "10,000 hours" by over 300%.

**#5, #6, #9, #10, #11 and #12- Guild of Project Controls (GPC) "Expert" or "Red Belt" level and the "Advanced" or "Orange Belt" (GPC)** For background information, the only difference between the Expert or Red Belt and the Advanced or Orange Belt is the Red Belt requires two years of documented and validated management/supervisory experience. The Guild wants to encourage members who hold Masters and PhD's to contribute research via papers and presentations to the knowledge base, which is why they were willing to trade off an appropriate amount of field experience for the time spent earning degrees.

**#7, #8 and #15- Green Project Management organizations "Master Green Project Manager" (GPM-m)** <http://www.greenprojectmanagement.org/the-gpm-m-certification>. As "sustainability" in project management is the objective of the Green Project Management organization, they were one of the first of the newly formed professional organizations to formally recognize advance degrees as an integral part of their credentialing program. Regardless of whether one holds the GPM-m with a PhD, Masters or Bachelor degree, the credentials exceed the requirements of both the ABET PE license as well as Gladwell's 10,000 hour rule. It is important to note that for 2014, the Green Project Management credentials were top ranked globally and now several other professional organizations have exceeded them. Hopefully, this is an indication that the trend towards more stringent and robust competency based credentialing is growing.

**#13- Association for the Advancement of Cost Engineering International's "Certified Forensic Claims Consultant" (CFCC)** [http://www.aacei.org/cert/CFCC\\_toolbox.htm](http://www.aacei.org/cert/CFCC_toolbox.htm). This is AACE's first foray moving beyond their highly respected and globally recognized exam based credentials <http://www.aacei.org/cert/whatCertOffers.shtml> and into true competency based credentialing based on peer review of work outputs. The CFCC as the name implies is for those professionals who are "expert witnesses" or claims analysts. This provides yet more support that the trend is moving towards competency rather than exam based credentialing programs.

**#14 and #19- Project Management Institute's new Portfolio Management Professional (PfMP)** <http://www.pmi.org/Certification/Portfolio-Management-Professional-PfMP.aspx> and their revised **Program Management Professional (PgMP)** <http://www.pmi.org/Certification/Program-Management-Professional-PgMP.aspx> Given that PMI is without question the largest (and for better or worse the most influential) of the project management professional organizations, the fact that their new PfMP and their revised PgMP credentials now meet or exceed the level of effort it takes to earn an ABET PE license are as clear an indication as any that the bar is being raised, moving AWAY from exam based credentials to competency based credentials, which require validated and documented (peer reviewed) experience. Unfortunately, PMI's other new credential, the Professional Business Analyst (PBA) did not score very well, which will be discussed later on.

**#15- Closing out those certifications which meet or exceed the level of effort to obtain an ABET PE, is the Australian Institute of Project Managers "Registered Project Manager" (RegPM) Level CCPE** <http://www.aipm.com.au/AIPM/CERTIFICATION/REGPM/3G/R/regpm.aspx> As AIPM is now under the umbrella of IPMA, it will be interesting to see if AIPM modifies their tested and proven competency based assessment to fit what IPMA is doing or if IPMA will adopt all or some of what AIPM has done.

In closing out this part of the 2015 update, out of the 66 certifications being benchmarked, 19 of them (29%) EXCEED the ABET Professional Engineer license. This is up from 5 out of 40 (12.5%) in 2014. Hopefully, this is a trend which will continue as we are seeing more and more credentials being offered. Also worth noting is if you look to the ABET PE (#20) PSCOR you can see it is 15,735 hours of effort. Given that the PE is without question recognized as a legitimate, professional level license to practice, and given that the PE has been around for well over 100 years, makes for a compelling argument that the minimum level of effort for any professional level project management credential should be not less than 15,000 hours, and not 10,000 as Gladwell proposed.

**“COST ENGINEERING”, “BUSINESS ANALYSIS” and “SYSTEMS ENGINEERING” CREDENTIALS BENCHMARKED AND RANK ORDERED**

As promised at the outset, the focus of this year’s benchmarking is to compare what are generally referred to as “project control” or “cost engineering” certifications. This includes those professional services which support or enable project, program or portfolio managers to initiate, plan, execute, control and close projects. This includes those who work in “project management offices” (PMO), “project control offices”, “project support services”, “cost engineering” or “systems engineering”..

Given that “cost engineering” “systems engineering” and “business analysis” all focus on the “front end” of project design, (i.e. Business Case, “Front End Loading” (FEL) and Life Cycle Cost Analysis) the first comparison will consist of the following credentials (in alphabetical order):

- AAACE- <http://www.aacei.org/cert/whatCertOffers.shtml>
- AcostE- [http://www.acoste.org.uk/template\\_content\\_R.php?page\\_id=335&](http://www.acoste.org.uk/template_content_R.php?page_id=335&)
- IIBA- <http://www.iiba.org/Certification-Recognition.aspx>
- INCOSE- <http://www.incose.org/educationcareers/certification/>
- PMI-PBA- <http://www.pmi.org/Certification/PMI-Professional-in-Business-Analysis-PMI-PBA.aspx>
- SAVE- [http://www.value-eng.org/education\\_certification.php](http://www.value-eng.org/education_certification.php)

Rank Order based on PSCOR	4	6	7	13	14	15	16	17	18	19	23	24	27	29	30	31	35	37	39	40	43	45	48
Organizational Affiliation: Acronym of Credential:	ACostE Certified	GPM-m (PhD)	GPM-m (MS/MB A)	PMI PfMP	GPM- m (BS/BA)	AIPM- CPPE	ACostE Incorpor- ated	PE LICENSE Non- ABET	PMI PgMP	PE LICENSE ABET	INCOSE ESEP	INCOSE CSEP	AAACE CCP (CCE)	AAACE DRMP	AAACE EVP	AAACE CEP	GPM GPM	ACostE Registe- red	PMI PBA	PMI- PMP	PMI- RP	IIBA CBAP	GPM
Required Experience Hours AFTER Bachelors	24000	10000	15000	16000	16000	16000	14000	14000	12000	10000	10000	10000	8000	8000	8000	8000	6000	10000	4500	4500	3000	7500	2000
Bachelors (BDEG) Level of Effort	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	0	5200	5200	5200	0	5200
Masters (MDEG) Level of Effort		1920	1920	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PhD/DBA (PDEG) Level of Effort		5160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional REQUIRED (ARTH) Level of Effort	800	160	160	35	160	0	640	24	35	24	0	0	0	0	0	0	0	480	35	35	0	0	0
EXAM Level of Effort	62	93	62	124	31	0	62	496	124	496	62	62	255	285	285	285	0	0	93	89	108.5	108.5	93
Exam Difficulty Adjustment DIF1 Level of Effort	3.1	0	0	0	0	0	3.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exam Difficulty Adjustment DIF2 Level of Effort	6.2	0	0	0	0	0	6.2	0	0	0	6.2	6.2	25.5	28.5	28.5	28.5	0	0	0	0	0	0	0
Exam Difficulty Adjustment DIF3 Level of Effort	9.3	0	0	0	0	0	9.3	0	0	0	0	0	38	42	42	42	0	0	0	0	0	0	0
PAPR Level of Effort	26	50	50	0	50	0	20	0	0	0	0	0	50	0	0	0	0	15	0	0	0	0	0
Formal Mentorship (SUPRV1) Level of Effort	50	4	4	0	4	3	40	10	0	10	4	3	4	1.5	0.75	0.5	3	30	0	0	0	4	0
Peer Assessment (SUPRV2) Level of Effort	56	4	4	100	4	8	46	0	100	0	0	0	0	0	0	0	8	36	0	0	0	0	0
ACTA Level of Effort	53	4	4	50	4	5.5	43	5	50	5	2	1.5	2	0.75	0.375	0.25	5.5	33	0	0	0	2	0
TOTAL CUMULATIVE LEVEL OF EFFORT BEYOND DEGREES	1128	14568	4186	437	284	17	932	1031	433	1031	136	135	629	643	642	641	17	594	229	213	217	223	186
TOTAL PSCOR SCORE	30266	22595	22404	21509	21453	21217	20070	19735	17509	15735	15274	15273	13574	13558	13557	13556	11217	10594	9828	9824	8309	7615	729
RATIO TO ABET PE LICENSE	192%	144%	142%	137%	136%	135%	128%	125%	111%	100%	97%	97%	86%	86%	86%	86%	71%	67%	62%	62%	53%	48%	46%
RATIO AGAINST GLADWELL	303%	226%	224%	215%	215%	212%	201%	197%	175%	157%	153%	153%	136%	136%	136%	136%	112%	106%	98%	98%	83%	76%	73%

Table 2- “Cost Engineering”, “Business Analysis” and “Systems Engineering” Certification Rankings (part A)

In this analysis, we have extracted only those certifications which deal with the “front end loading” (FEL), “Business Case” or “Whole life Cycle Management”. Explained another way, people who hold these credentials are most likely functioning as project SPONSORS or are providing support to project sponsors in the early part of the project life span to help in deciding which projects to proceed with and

which projects to postpone or cancel. Those certifications to the LEFT of the vertical blue line identifies those which EXCEED 15,000 hours to earn while those credentials falling between the vertical blue line and the vertical red line identify those which score BELOW 15,000 level of effort hours but greater than Gladwell’s 10,000 hours. And anything to the RIGHT of the vertical red line indicate those credentials which fail to meet Gladwell’s “10,000 hours”.

As can be seen, of the 25 certifications which exceed 15,000 hours, 10 of them are focused on the “Business Case” or “Front End Loading and of the 13 credentials which fall between 10,000 and 15,000 hours, 6 of them also support or contribute to analyzing the business case. While this is a good trend, in the future we would like to see more emphasis on this by the other professional societies, whether they expand their existing credentials to cover this area or create another certification as PMI and IIBA have done.

For those owner organizations in particular, given that so many key decisions are made during the early phases of the project doesn’t it make sense that you would want people who hold those credentials which are shown in green, even though they may not be as “popular” or as “well marketed” as others to be working with your project sponsors during the ever so critical “Identify” (FEL1), “Assess” (FEL2) and “Select” (FEL3) phases?<sup>2</sup>

One of the purposes in researching and publishing this benchmarking survey and analysis is to make the newer or lesser known but in many cases, much more technically robust and demanding credentials known. This is important we are seeing evidence that HR departments are using some of these credentials as defacto “licenses to practice” which may not be a bad thing provided those credentials actually validate COMPETENCY and not just the ability to pass multiple choice exams.

17	18	19	23	24	27	28	29	31	35	37	39	40	43	45	48	50	51	53	54	55	57	59	60	65
PE LICENSE Non-ABET	PMI PgMP	PE LICENSE ABET	INCOSE ESEP	INCOSE CSEP	AAACE CCP (CCE)	GPC GB BA/BS	AAACE DRMP	AAACE CEP	GPM GPM	ACostE Registered	PMI PBA	PMI PMP	PMI- RP	IIBA CBAP	GPM-b	INCOSE ASEP	ACostE Enrolled	AAACE CCT/ CST	SAVE CVS	SAVE VMP	PE License EIT	ACostE Entry	IIBA CCBA	PMI CAPM
14000	12000	10000	10000	10000	8000	8000	8000	8000	6000	10000	4500	4500	3000	7500	2000	2000	6000	1000	0	0	0	4000	3750	0
5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	0	5200	5200	5200	0	5200	5200	0	5200	5200	5200	5200	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	35	24	0	0	0	0	0	0	0	480	35	35	0	0	0	0	320	0	0	0	0	0	0	0
496	124	496	62	62	255	124	285	285	0	0	93	89	108.5	108.5	93	0	108.5	4.5	3	248	0	108.5	48	
0	0	0	0	0	0	6.2	0	0	0	0	0	0	0	0	0	0	0	0.225	0.15	0	0	0	0	
0	0	0	6.2	6.2	25.5	12.4	28.5	28.5	0	0	0	0	0	0	0	0	0	0.45	0.3	0	0	0	0	
0	0	0	0	0	38	18.6	42	42	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	
0	0	0	0	0	50	50	0	0	15	0	0	0	0	0	0	10	0	50	50	0	0	0	0	
10	0	10	4	3	4	100	1.5	0.5	3	30	0	0	0	4	0	20	0	100	100	0	0	4	0	
0	100	0	0	0	0	5	0	0	8	36	0	0	0	0	0	26	0	100	100	0	0	0	0	
5	50	5	2	1.5	2	52.5	0.75	0.25	5.5	33	0	0	0	2	0	23	0	100	100	0	0	2	0	
1031	433	1031	136	135	629	493	643	641	17	594	229	213	217	223	186	0	399	217	420	419	496	0	223	96
19735	17509	15735	15274	15273	13574	13569	13558	13556	11217	10594	9828	9824	8309	7615	7293	7200	6399	6309	5556	5555	5448	4000	3865	48
125%	111%	100%	97%	97%	86%	86%	86%	86%	71%	67%	62%	62%	53%	48%	46%	46%	41%	40%	35%	35%	35%	25%	25%	0%
197%	175%	157%	153%	153%	136%	136%	136%	136%	112%	106%	98%	98%	83%	76%	73%	72%	64%	63%	56%	56%	54%	40%	39%	0%

Table 3- Cost Engineering”, “Business Analysis” and “Systems Engineering” Certification Rankings (part B)

Continuing the analysis, of those certifications which deal with the “front end loading” (FEL), “Business Case” or “Whole life Cycle Management”, the boundaries between Gladwell’s 10,000 hour rule (red vertical line) and the “Engineer In Training” (EIT) (Yellow vertical line) which is the entry level to start the process to earn the PE license, serve to define the boundaries between what we are proposing to

<sup>2</sup> See Merrow, Edward W (201) Industrial Megaprojects: Concepts, Strategies and Practices for Success. Wiley and Sons. <http://as.wiley.com/WileyCDA/WileyTitle/productCd-047093882X.html>

be the MINIMUM level of documented and validated effort to hire a fresh graduate as an intern or coop student and an advanced “apprentice” ready to qualify as a “competent” Journeyman level practitioner.

We can see that the PMI PBA, (#39); PMP (#40) and PMI RP, (#43); all fall below Gladwell’s 10,000 hour rule yet PMI does not position them as “entry” or “apprentice” level credentials. This same concern holds true with IIBA’s CBAP credential (#45) and even of more concern, the SAVE family of credentials (#54 and #55) neither of which require ANY experience. When benchmarked against truly professional level credentials, any credential which falls short and yet is being positioned in the organizations marketing materials as a professional level credential raises some thorny ethical if not legal questions and practitioners should be demanding that, consistent with the various consumer protection laws, that ALL professional organizations need to back up their claims with credible evidence<sup>3</sup> as to what their credentials do and do not validate. Asked another way, how can ANY organization make a legitimate claim that their credentials validate competency based only on the ability to study for and pass a multiple choice exam, unless in addition, they require validated and peer reviewed evidence of what the practitioner actually does/has done in the work place?

Continuing with the analysis, the Green Project Management’s GPM-b (#48), INCOSE’s ASEP (#50), along with AACE’s Certified Cost Technician (CST) and Certified Scheduling Technician (CST) (#53) are appropriately positioned as an entry level credentials, as are AcostE’s “Entry” level (#59) and the IIBA “CCBA” (#60).

To conclude this portion of the analysis, using the EIT (#57) as the baseline with a PSCOR of say 5500, for those credentials who scored lower than 5500, (AcostE “Entry” and the IIBA CCAB) the challenge to these organizations would be to consider increasing the level of effort required to bring them at least to the level of the EIT. For those remaining credentials, for those scoring between 5500 to 6525, would it be unreasonable to equate that level of effort of a 1<sup>st</sup> year apprentice; from 6226 to 7750 hours of effort would be equivalent to a 2<sup>nd</sup> year apprentice; 7751 to 8875 hours would equate to a 3<sup>rd</sup> year apprentice and from 8876 to 10,000 would be equivalent to a 4<sup>th</sup> year apprentice? Given that the standardized value of a 4 year degree is 5200 level of effort hours it would mean:

- 1<sup>st</sup> Year Apprentice 5200 hours for the degree + 300 to 1325 hours of related work experience
- 2<sup>nd</sup> Year Apprentice 5200 hours for the degree + 1326 to 2550 hours of related work experience
- 3<sup>rd</sup> Year Apprentice 5200 hours for the degree + 2551 to 3675 hours of related work experience
- 4<sup>th</sup> Year Apprentice 5200 hours for the degree + 3676 to 4800 hours of related work experience

Now is this a “fair and reasonable” expectation for anyone wanting to become a professional level practitioner? Is this a “fair and reasonable” requirement for those who hire and use our professional skills?

---

<sup>3</sup> The US Federal Trade Commission, Bureau of Consumer affairs has issued guidelines for small business <http://www.business.ftc.gov/documents/bus35-advertising-faqs-guide-small-business> which are very clear in stating that “Under the [Federal Trade Commission Act](#):

- Advertising must be truthful and non-deceptive;
- Advertisers must have evidence to back up their claims; and
- Advertisements cannot be unfair.

**PLANNING AND SCHEDULING CREDENTIALS BENCHMARKED AND RANK ORDERED**

Rank Order based on PSCOR	1	4	8	9	16	17	19	28	30	32	37	40	42	46	51	53	57	59	65
Organizational Affiliation: Acronym of Credential:	GPC BB (BS/BA)	ACostE Certified	GPC RB (BS/BA)	GPC OB (BS/BA)	ACostE Incorporat ed	PE LICENSE Non- ABET	PE LICENS ABET	GPC GB BA/BS	AACE EVP	AACE PSP	ACostE Registered	PMI- PMP	PMI- SP	GPC YB BA/BS	ACostE Enrolled	AACE CCT/ License	PE EIT	ACostE Entry	PMI CAPM
Required Experience Hours AFTER Bachelors	28000	24000	16000	16000	14000	14000	10000	8000	8000	8000	10000	4500	3500	2000	6000	1000	0	4000	0
Bachelors (BDEG) Level of Effort	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	0	5200	5200	5200	0	5200	5200	0	0
Masters (MDEG) Level of Effort						0	0	0	0	0	0	0	0	0	0	0	0	0	0
PhD/DBA (PDEG) Level of Effort						0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional REQUIRED (ARTH) Level of Effort	0	800	0	0	640	24	24	0	0	0	480	35	0	0	320	0	0	0	0
EXAM Level of Effort	0	62	155	155	62	496	496	124	285	285	0	89	108.5	62	0	108.5	248	0	48
Exam Difficulty Adjustment DIF1 Level of Effort	0	3.1	7.75	7.75	3.1	0	0	6.2	0	0	0	0	0	3.1	0	0	0	0	0
Exam Difficulty Adjustment DIF2 Level of Effort	0	6.2	15.5	15.5	6.2	0	0	12.4	28.5	28.5	0	0	0	6.2	0	0	0	0	0
Exam Difficulty Adjustment DIF3 Level of Effort	0	9.3	23.25	23.25	9.3	0	0	18.6	42	42	0	0	0	9.3	0	0	0	0	0
PAPR Level of Effort	300	26	200	200	20	0	0	50	0	0	15	0	0	0	10	0	0	0	0
Formal Mentorship (SUPRV1) Level of Effort	0	50	100	100	40	10	10	100	0.75	0.5	30	0	0	100	20	0	0	0	0
Peer Assessment (SUPRV2) Level of Effort	9	56	9	6	46	0	0	5	0	0	36	0	0	3	26	0	0	0	0
ACTA Level of Effort	4.5	53	54.5	53	43	5	5	52.5	0.375	0.25	33	0	0	51.5	23	0	0	0	0
TOTAL CUMULATIVE LEVEL OF EFFORT BEYOND DEGREES	314	1128	720	716	932	1031	1031	493	642	641	594	213	217	297	399	217	496	0	96
TOTAL PSCOR SCORE	33514	30266	21765	21761	20070	19735	15735	13569	13557	13556	10594	9824	8809	7435	6399	6309	5448	4000	48
RATIO TO ABET PE LICENSE	213%	192%	138%	138%	128%	125%	100%	86%	86%	86%	67%	62%	56%	47%	41%	40%	35%	25%	0%
RATIO AGAINST GLADWELL	335%	303%	218%	218%	201%	197%	157%	136%	136%	136%	106%	98%	88%	74%	64%	63%	54%	40%	0%

Table 4- Planning and Scheduling Certifications Benchmarked and Rank Ordered<sup>4</sup>

As we can see from Table 4, when looking ONLY at those credentials which “planning and scheduling” form all or a significant portion of the credential’s assessment, we can see those to the left of the blue vertical line exceed 15,000 hours level of effort to earn them, (Guild of Project Controls Black Belt, Red Belt and Orange Belt Planning and Scheduling Track (#1, #4, #8 and #9) as well as the AcostE “Certified” (#4) and “Incorporated Level (#16)) while those which fall between the vertical blue line and the vertical red line require MORE than 10,000 hours level of effort but LESS THAN 15,000. (Guild of Project Controls Green Belt Planning and Scheduling Track (#28), AACE’s Earned Value Professional, (#30), AACE’s Planning and Scheduling Professional (#32) and AcostE “Registered” level (#37)).

For those credentials which fall to the right of the red vertical line there is nothing wrong PROVIDED they are being positioned or marketed as entry level credentials. The best examples of what is or should be appropriate for that level of effort are the Guild of Project Controls Yellow Belt, Planning and Scheduling Track (#46), AACE’s Certified Scheduling Technician (#53), AcostE’s Entry level (#59) and PMI’s CAPM (#65).

<sup>4</sup> Note in order for the graphics to be readable, the Guild of Project Controls Certifications only showed each level of certification for those who hold a Bachelor (4 year) degree. Those holding a Masters or PhD score roughly the same as the experience requirement has been reduced and replaced with the level of effort it takes to earn the advanced degrees.

**COST ESTIMATING/COST MANAGEMENT CREDENTIALS BENCHMARKED AND RANK ORDERED**

	B	E	I	J	O	R	T	AB	AC	AD	AF	AL	AO	AR	AU	AZ	EB	ED	EE	EF	EH
Rank Order based on PSCOR:	66	63	59	58	51	50	48	40	39	38	36	30	27	24	21	16	14	12	11	10	8
Organizational Affiliation: Acronym of Credential:	GPC BB (BS/BA)	ACostE Certified	GPC RB (BS/BA)	GPC OB (BS/BA)	ACostE Incorporated	PE LICENS E Non- ABET	PE LICENS E ABE	AACE CCP (CCE)	GPC GB BA/BS	AACE DRMP	AACE CEP	ACostE Registered	PMI- PMP	PMI- RP	GPC YB BA/BS	ACostE Enrolled	AACE CCT/ CST	SAVE VMP	SAVE AVS	PE Licens EIT	ACostE Entry
Required Experience Hours AFTER Bachelors	28000	24000	16000	16000	14000	14000	10000	8000	8000	8000	8000	10000	4500	3000	2000	6000	1000	0	0	0	4000
Bachelors (BDEG) Level of Effort	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200	0	5200	5200	5200	0	5200	5200	5200	5200	0
Masters (MDEG) Level of Effort						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PhD/DBA (PDEG) Level of Effort						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional REQUIRED (ARTH) Level of Effort	0	800	0	0	640	24	24	0	0	0	0	480	35	0	0	320	0	0	0	0	0
EXAM Level of Effort	0	62	155	155	62	496	496	255	124	285	285	0	89	108.5	62	0	108.5	3	1.5	248	0
Exam Difficulty Adjustment DIF1 Level of Effort	0	3.1	7.75	7.75	3.1	0	0	0	6.2	0	0	0	0	0	3.1	0	0	0.15	0.075	0	0
Exam Difficulty Adjustment DIF2 Level of Effort	0	6.2	15.5	15.5	6.2	0	0	25.5	12.4	28.5	28.5	0	0	0	6.2	0	0	0.3	0.15	0	0
Exam Difficulty Adjustment DIF3 Level of Effort	0	9.3	23.25	23.25	9.3	0	0	38	18.6	42	42	0	0	0	9.3	0	0	2	3	0	0
PAPR Level of Effort	300	26	200	200	20	0	0	50	50	0	0	15	0	0	0	10	0	50	50	0	0
Formal Mentorship (SUPRV1) Level of Effort	0	50	100	100	40	10	10	4	100	1.5	0.5	30	0	0	100	20	0	100	100	0	0
Peer Assessment (SUPRV2) Level of Effort	9	56	9	6	46	0	0	0	5	0	0	36	0	0	3	26	0	100	100	0	0
ACTA Level of Effort	4.5	53	54.5	53	43	5	5	2	52.5	0.75	0.25	33	0	0	51.5	23	0	100	100	0	0
TOTAL CUMULATIVE LEVEL OF EFFORT BEYOND DEGREES	314	1128	720	716	932	1031	1031	629	493	643	641	594	213	217	297	399	217	419	395	496	0
TOTAL PSCOR SCORE	33514	30266	21765	21761	20070	19735	15735	13574	13569	13558	13556	10594	1824	8309	7435	6399	6309	5555	5555	5448	4000
RATIO TO ABET PE LICENSE	213%	192%	138%	138%	128%	125%	100%	86%	86%	86%	86%	67%	52%	53%	47%	41%	40%	35%	35%	35%	25%
RATIO AGAINST GLADWELL	335%	303%	218%	218%	201%	197%	157%	136%	136%	136%	136%	106%	38%	83%	74%	64%	63%	56%	56%	54%	40%

Table 5- Cost Estimating/Cost Management Certifications Benchmarked and Rank Ordered

As with the previous analysis, we can see that the Guild of Project Controls Black Belt (#1), Red Belt (#8) and Orange Belt (#9) specializing in the Cost Management Track along with the AcostE “Certified” (#4) and “Incorporated” (#16) are the top ranked Cost Estimating/Cost Management credentials, as they exceed the ABET PE.

AACE’s venerable and well established “Certified Cost Professional” (CCP) (formerly Certified Cost Engineer CCE or Certified Cost Consultant CCC) at #27 with a PSCOR of 13574 is 86% of the ABET PE as is the Guild of Project Controls Green Belt with a specialty in Cost Management (#28) with a PSCOR of 13569. Important to note that as RECIPROCITY and TRANSPORTABILITY are important issues with any of these certifications we can say that because the AACE CCP and GPC Green Belt both require roughly the same level of effort, that they have EQUIVALENCY. What this means is if AcostE wanted to have reciprocity or equivalency for their AcostE “Registered” level with the AACE CCE/CCP then they would have to add another 3000 or so hours, either through additional experience and/or additional courses and/or adding a degree requirement OR if AACE wanted to “raise the bar” to be equivalent to the ABET PE, then they would have to add another 2000 hours of effort and if AACE wanted to be equivalent to the AcostE “Incorporated” level, it means AACE would have to add another 7000 hours of effort to be able to claim “equivalency” or “reciprocal recognition”. This is perhaps one of the most important and relevant applications of this research as the question of reciprocity, equivalence and mutual recognition is a frequent topic of debate.

**CHALLENGES FOR 2015 AND BEYOND**

38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
AXELOS ITIL MASTER	PMI PBA	PMI- PMP	US Gov FAC- Mid	PMI- SP	PMI- RP	PMI- ACP	IIBA CBAP	GPC YB BA/BS	US Gov FAC- Entry	GPM-b	AIPM- CPPM	INCOSE ASEP	ACostE Enrolle d	IPMA D	AACE CCT/ CST	SAVE CVS	SAVE VMP	SAVE AVS	PE License EIT	ASEM AEM	ACostE Entry	IIBA CCBA	ASPE CPE	AXELOS ITIL XPERT	AXELOS PRINCE 2 P2P	AXELOS ITIL FOUND	PMI CAPM	AXELOS PRINCE 2 P2F
10000	4500	4500	4000	3500	3000	3000	7500	2000	2000	2000	2000	2000	6000	1000	1000	0	0	0	0	0	4000	3750	0	0	0	0	0	0
0	5200	5200	5200	5200	5200	5200	0	5200	5200	5200	5200	5200	0	5200	5200	5200	5200	5200	5200	5200	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	35	35	80	0	0	0	0	0	112	0	0	0	320	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0
93	93	89	0	108.5	108.5	108.5	108.5	62	0	93	0	0	0	131.75	108.5	4.5	3	1.5	248	62	0	108.5	372	186	77.5	31	48	31
0	0	0	0	0	0	0	0	3.1	0	0	0	0	0	0	0.225	0.15	0.075	0	0	0	0	18.6	9.3	0	0	0	0	0
0	0	0	0	0	0	0	0	6.2	0	0	0	0	0	0	0	0.45	0.3	0.15	0	0	0	0	37.2	18.6	0	0	0	0
0	0	0	0	0	0	0	0	9.3	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	50	50	50	0	0	0	0	50	0	0	0	0	0	0
0	0	0	0	0	0	0	4	100	0	0	0	0	20	0	0	100	100	100	0	0	0	4	0	0	0	0	0	0
0	0	0	0	0	0	0	0	3	0	0	0	0	26	0	0	100	100	100	0	0	0	100	0	0	0	0	0	0
0	0	0	0	0	0	0	2	51.5	0	0	0	0	23	0	0	100	100	100	0	0	0	2	50	0	0	0	0	0
186	229	213	80	217	217	217	223	297	112	186	0	0	399	264	217	420	419	395	496	124	0	223	1000	400	155	86	96	62
10093	9828	9824	9280	8809	8309	8309	7615	7435	7312	7293	7200	7200	6399	6332	6309	5556	5555	5555	5448	5262	4000	3865	628	214	78	55	48	31
64%	62%	62%	59%	56%	53%	53%	48%	47%	46%	46%	46%	46%	41%	40%	40%	35%	35%	35%	35%	33%	25%	25%	4%	1%	0%	0%	0%	0%
101%	98%	98%	93%	88%	83%	83%	76%	74%	73%	73%	72%	72%	64%	63%	63%	56%	56%	56%	54%	53%	40%	39%	6%	2%	1%	1%	0%	0%

Table 6- Challenges to those Certifications Scoring <5500

Given that it is in everyone’s best interests to “raise the bar” and “professionalize” the practice of project management, and given that we can all agree that the ability to pass written exams alone does not and cannot validate “competency”, is it unreasonable to challenge those organizations whose certifications fall to the right of the vertical yellow line to modify the requirements of these credentials to at least meet the minimum requirements of the Engineer in Training (EIT) which is about 5500 hours level of effort? In particular, given that the Axelos ITIL (#62 & #64) and PRINCE2 (#63 & #66) credentials are second only in popularity to PMI’s PMP (#40) isn’t in all our best interests if we lobby these organizations to add an experience component? The same request or suggestion goes out to our colleagues over at SAVE for their CVS (#55) and VMP (#56) certifications.

To our AcostE colleagues would you consider adding another 1500 hours experience or a combination of experience and course work or degrees to bring your Entry level (#59) to at least meet the EIT requirements of 5500? Same suggestion or request for our colleagues at IIBA for your CCBA to consider?

Likewise, for those organizations whose certifications score <10,000 but claiming them to be “professional” level credentials is it unreasonable or unfair to expect that, for no other reason than to comply with their respective “codes of ethics” if not the various consumer protection laws, that these organizations either change the name or otherwise upgrade the requirements to at least meet Gladwell’s “10,000 hour” rule. Failing that, would it be unreasonable to require them to provide proof how their credentials do validate competency in less than 10,000 hours?

There is an inherent risk that by allowing those professional organizations who purport to represent us by making claims which are either unsupported or worse, unsupportable. that we are actually damaging the “brand image” of project management- in effect, “over-promising” while “under-delivering”?

**CONCLUSIONS AND RECOMMENDATIONS**

With 20,000+ downloads<sup>5</sup> thus far, this topic of benchmarking the various credentials is clearly important and of interest to many. Towards this end, below is a simple scoring matrix you can use to help guide you in evaluating or assessing your favorite credential without having to go through a more complex scoring process.

Let’s start by defining *COMPETENCE*<sup>6</sup> as being “*the quality or state of being functionally adequate, characterized by marked or sufficient aptitude + attitude + skills + strength + knowledge”.*

What that means is to calculate the total level of effort (PSCOR) can come from measuring and assessing any combination of the following attributes: APTITUDE plus ATTITUDE plus SKILLS plus STRENGTHS plus KNOWLEDGE based on any one of a number of examination formats, personality assessment instruments and peer reviewed work outputs or results. But in the end, documented and validated work experience will trump education and formal documented university level education will trump any single exam.

Level of Effort Hours		Possible Certification Titles	Typical Job Titles
Low	High		
>15,000		Master Practitioner, Master Professional, Black Belt,	Project Manager CIFTER >19, Project Controls Manager, Director of Project Controls, Claims Consultant, Project Management Office Director, Expert Witness, Subject Matter Expert.
10,000	14,999	Journeyman or Professional Practitioner, Red Belt.	Project Manager CIFTER 12- 19, Senior Cost Estimator, Sr. Planner/Scheduler, Project Controls Manager, PMO Manager,
8,875	9,999	4th Year Apprentice or Intern, Orange Belt	Project Manager CIFTER <12, Cost Estimator, Scheduling Engineer, Project Controller, Team Leader
7,750	8,874	3rd Year Apprentice or Intern, Purple Belt	Assistant Project Manager, Assistant Cost Estimator, Asst Project Controller, Asst. Claims Researcher
6,625	7,749	2nd Year Apprentice or Intern, Green Belt	Junior Scheduling Engineer, Junior Cost Estimator, Junior Claims Analyst
5,500	6,624	1st Year Apprentice or Intern, Yellow Belt	Project Manager in Training, Scheduler in Training, Junior Project Team Member,
	<5,499	Novice, Entry, White Belt,	Career path exploration, Evaluation or Probationary Hire, Fresh Graduate, Intern, Apprentice

Table 7- Simplified Scoring Model to compare Level of Effort to Certification Titles to Job Titles<sup>7, 8</sup>

From an ethical if not legal perspective, it is imperative that the name of the credential accurately and reliably represent what the consuming public can expect from a person who holds any given credential. Specifically, calling a person a “professional” anything based only on their ability to pass a multiple choice exam is stretching the limits of credibility and only serves to damage the image of project managers or those providing project support services who truly are professional. Consistent with the various codes of ethics, does it seem unreasonable or inappropriate to expect that the name of the credential provides an honest and validated indication of what the capabilities of the person who holds the credential is capable of doing?

And to create a scoring model which is able to measure COMPETENCY, we need to look at three dimensions- What KIND of knowledge is required to accomplish the tasks identified in the role delineation studies, HOW that knowledge is applied in order to be deemed “competent” and what is the DEPTH of that knowledge.

<sup>5</sup> <http://www.build-project-management-competency.com/download-page/> line items #13, 14, 23, 24, 27 and 28.

<sup>6</sup> Compiled and Restated from Merriam Webster’s Third New International Dictionary <http://www.merriam-webster.com/>

<sup>7</sup> To learn more about how to calculate the Crawford Ishikawa CIFTER score, go to the Global Alliance for Project Performance Standards (GAPPS) [http://globalpmstandards.org/wp-content/uploads/2014/12/GAPPS\\_Project\\_Manager\\_v1.1150411\\_A4.pdf](http://globalpmstandards.org/wp-content/uploads/2014/12/GAPPS_Project_Manager_v1.1150411_A4.pdf)

<sup>8</sup> The belt levels were based on the Kung Fu System- <http://www.pureshaolin.com/classes/martial-arts-program-black-belt-program/>

For illustration purposes, the scoring model being featured below in Illustration 1 is based on the 2014 top rated Green Project Management family of competency based credentials.

<http://www.greenprojectmanagement.org/certification>. And while not 100% finalized yet, a similar scoring model is being developed for the 5 level Guild of Project Controls competency assessment and scoring model as well.

By basing the scoring model on tested and proven educational course development tools and techniques, enables training providers the opportunity to take the appropriate and relevant role delineations plus the underlying “Body of Knowledge” or the “Methodology” and turn it into a curriculum which produces measurable results. (See Kirkpatrick Method

<http://www.kirkpatrickpartners.com/OurPhilosophy/TheNewWorldKirkpatrickModel/tabid/303/Default.aspx> as well as the Buck Institutes’s “Project Based Learning” [http://bie.org/object/offsite/pbl\\_online\\_org/](http://bie.org/object/offsite/pbl_online_org/) both of which are subjects of follow on papers on competency development and assessment).

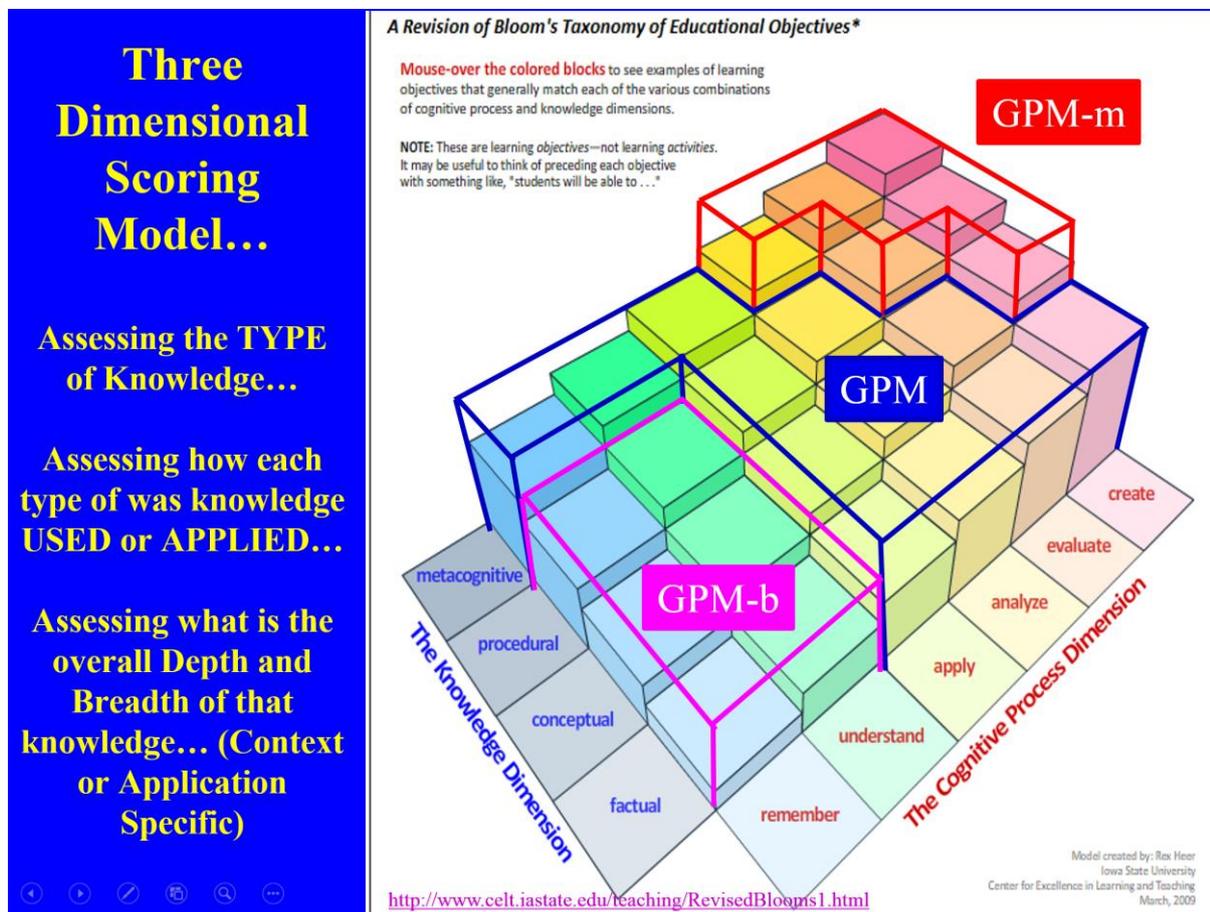


Illustration 1- Green Project Management 3 Level, 3 Dimension Competency Assessment Model.<sup>9</sup>

<sup>9</sup> Adapted from Moor, R. (2009) Iowa State University, Center for Excellence in Learning and Teaching <http://www.celt.iastate.edu/teaching/RevisedBlooms1.html> last accessed 20 December 2014

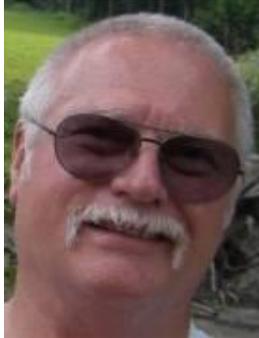
To summarize this article is proposing three “actionable items” for 2015:

#1) “Raise the Bar” by upgrading all ENTRY level credentials to require a minimum of 5500 hours level of effort;

#2) “Raise the Bar” by upgrading all legitimate PROFESSIONAL level credentials to require a minimum of 15,000 hours of documented and validated effort;

#3) Comply with ethical and legal requirements by renaming or rebranding those credentials which fall between 10,000 hours to 15,000 hours level of effort as being “Intermediate” rather than “Professional” level credentials. (Or upgrade them to >15,000 hours)

## About the Author



### **Dr. Paul D. Giammalvo, CDT, CCE, MScPM, MRICS, GPM-m**

Jakarta, Indonesia



**Dr. Paul D. Giammalvo, CDT, CCE (#1240), MScPM, MRICS, GPM-m** is Senior Technical Advisor (Project Management) to PT Mitratata Citragraha. (PTMC), Jakarta, Indonesia. [www.build-project-management-competency.com](http://www.build-project-management-competency.com).

For 20+ years, he has been providing Project Management training and consulting throughout South and Eastern Asia, the Middle East and Europe. He is also active in the Global Project Management Community, serving as an Advocate for and on behalf of the global practitioner. He does so by playing an active professional role in the Association for the Advancement of Cost Engineering International, (AACE); Construction Specifications Institute (CSI) and the Construction Management Association of America, (CMAA). He currently sits on the Board of Directors of the American Society for the Advancement of Project Management (asapm) <http://www.asapm.org/> and is on the Certification Board of the Green Project Management Institute. <http://www.greenprojectmanagement.org/> He is active as a regional leader in the International Guild of Project Controls. <http://www.planningplanet.com/guild>

He has spent 18 of the last 35 years working on large, highly technical international projects, including such prestigious projects as the Alyeska Pipeline and the Distant Early Warning Site (DEW Line) upgrades in Alaska. Most recently, he worked as a Senior Project Cost and Scheduling Consultant for Caltex Minas Field in Sumatra and Project Manager for the Taman Rasuna Apartment Complex for Bakrie Brothers in Jakarta. His current client list includes AT&T, Ericsson, Nokia, Lucent, General Motors, Siemens, Chevron, Conoco-Phillips, BP, Dames and Moore, SNC Lavalin, Freeport McMoran, Petronas, Pertamina, UN Projects Office, World Bank Institute and many other multi-national companies and NGO organizations.

Dr. Giammalvo holds an undergraduate degree in Construction Management, a Master of Science in Project Management through the George Washington University and a PhD in Project and Program Management through the Institute Supérieur De Gestion Industrielle (ISGI) and Ecole Supérieure De Commerce De Lille (ESC-Lille- now SKEMA School of Management) under the supervision of Dr. Christophe Bredillet, CCE, IPMA A Level. Paul can be contacted at [pauldgphd@gmail.com](mailto:pauldgphd@gmail.com).

For those interested in copies of the paper or access to the Excel spreadsheet, they can be downloaded HERE <http://www.build-project-management-competency.com/download-page/> Line Items #32 and #33.