

Professional Science Masters Degrees:

Hands on Training and the Advisor's PSM Toolkit



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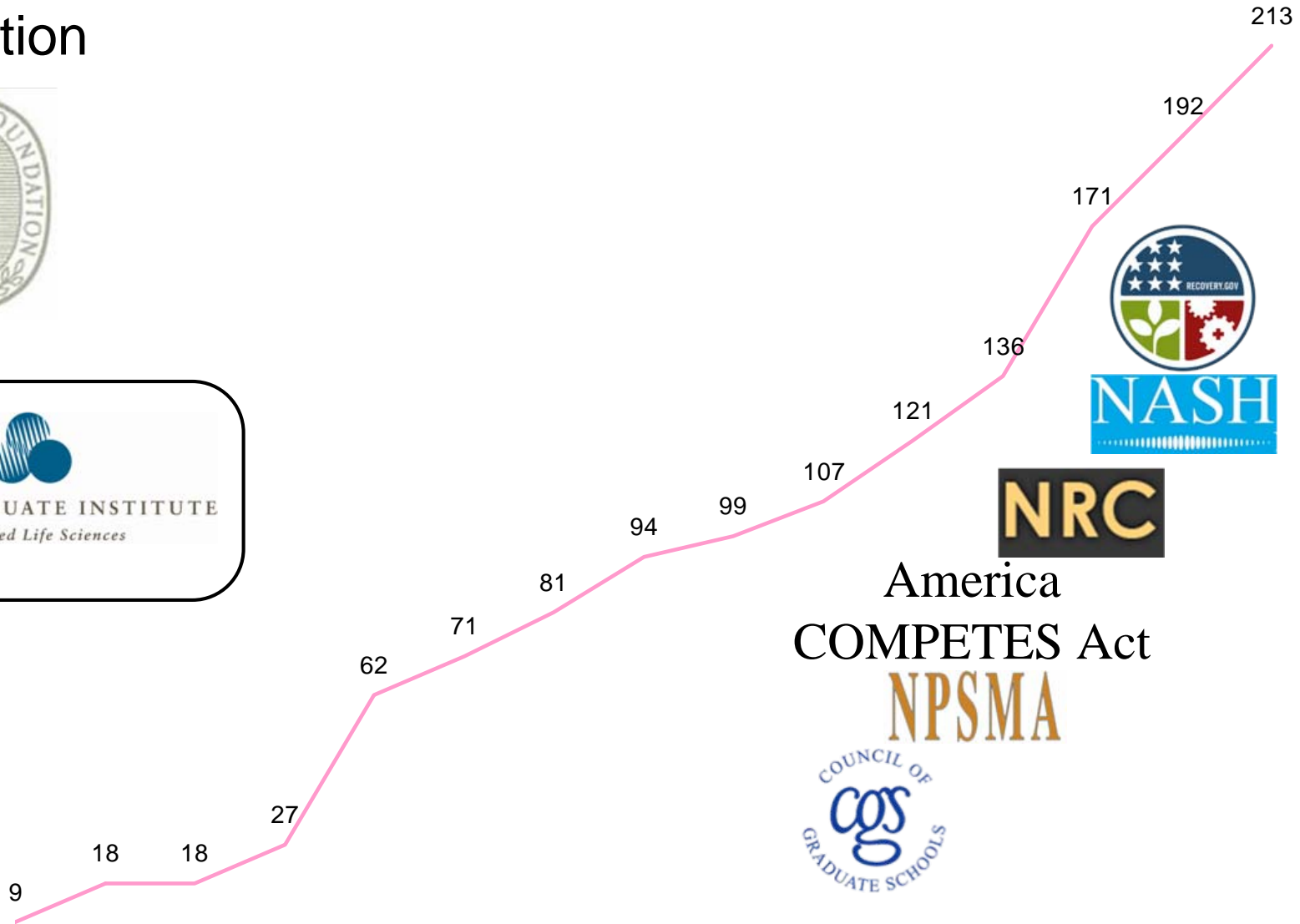


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Europe/Eurasia EducationUSA Triennial Workshop
“From Reykjavik to Vladivostok”
March 2010

Growing Options

W.M. Keck
Foundation



America
COMPETES Act
NPSMA



What is a PSM?

PSM programs combine rigorous study in science or mathematics with skills-based coursework in management, policy, law or related fields. These programs emphasize the written and verbal communication skills, leadership, and team-building required in professional settings.

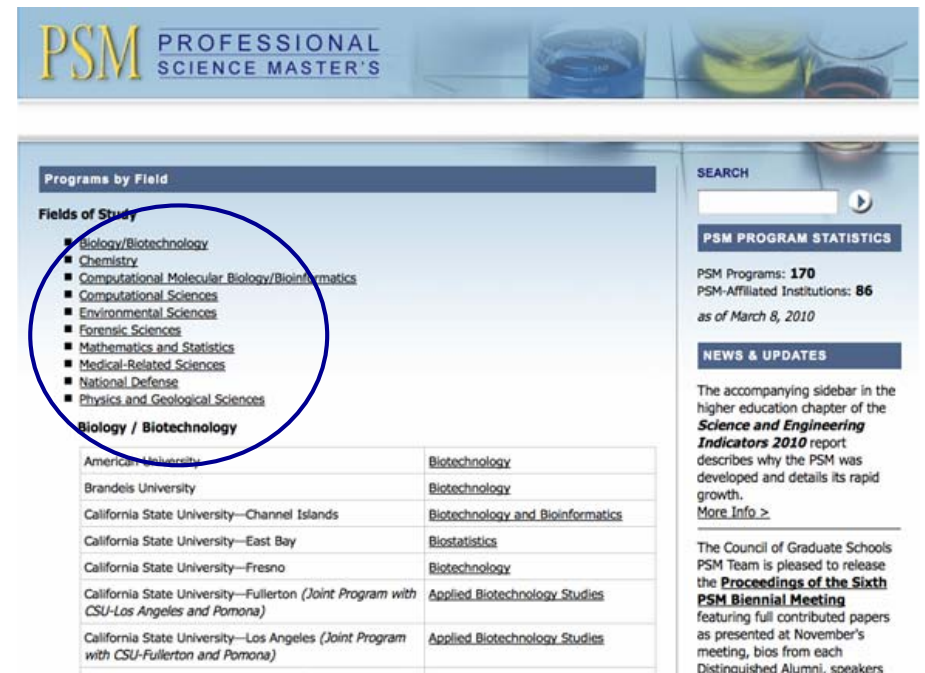
- Wikipedia



“Science
Plus”

Varied Program Areas

- Biology / Biotechnology (59)
- Chemistry (8)
- Bioinformatics (17)
- Computational Sciences (15)
- Environmental Sciences (22)
- Forensic Sciences (4)
- Mathematics and Statistics (21)
- Medical-related Sciences (16)
- National Defense (2)
- Physics and Geological Sciences (17)



The screenshot shows the PSM Professional Science Master's website. At the top, there is a banner with the PSM logo and the text "PROFESSIONAL SCIENCE MASTER'S". Below the banner, there is a navigation menu with "Programs by Field" selected. Under "Fields of Study", a list of fields is shown, with "Biology / Biotechnology" circled in blue. Below this list is a table of programs, with "Biology / Biotechnology" highlighted. To the right of the table, there is a search bar and a "PSM PROGRAM STATISTICS" section. The statistics section shows "PSM Programs: 170" and "PSM-Affiliated Institutions: 66 as of March 8, 2010". Below the statistics is a "NEWS & UPDATES" section with a link to "More Info >".

Fields of Study
■ Biology/Biotechnology
■ Chemistry
■ Computational Molecular Biology/Bioinformatics
■ Computational Sciences
■ Environmental Sciences
■ Forensic Sciences
■ Mathematics and Statistics
■ Medical-Related Sciences
■ National Defense
■ Physics and Geological Sciences

Biology / Biotechnology	
American University	Biotechnology
Brandeis University	Biotechnology
California State University—Channel Islands	Biotechnology and Bioinformatics
California State University—East Bay	Biostatistics
California State University—Fresno	Biotechnology
California State University—Fullerton (Joint Program with CSU-Los Angeles and Pomona)	Applied Biotechnology Studies
California State University—Los Angeles (Joint Program with CSU-Fullerton and Pomona)	Applied Biotechnology Studies

SEARCH

PSM PROGRAM STATISTICS

PSM Programs: **170**
PSM-Affiliated Institutions: **66**
as of March 8, 2010

NEWS & UPDATES

The accompanying sidebar in the higher education chapter of the **Science and Engineering Indicators 2010** report describes why the PSM was developed and details its rapid growth. [More Info >](#)

The Council of Graduate Schools PSM Team is pleased to release the **Proceedings of the Sixth PSM Biennial Meeting** featuring full contributed papers as presented at November's meeting, bios from each Distinguished Alumni, speakers

Sciencemasters.com





Industry Involvement

Advisory boards

60+ members

Internships

2.5 offers per student

Experiential component

12.5 Team Masters Projects

Successful
Employment

90% employment rate



What employers want:

Broad Scientific Knowledge

Quantitative reasoning

Ethical judgment

Intercultural skills

Social responsibility **Self-knowledge**

Self-direction

Global knowledge

Writing

Critical thinking

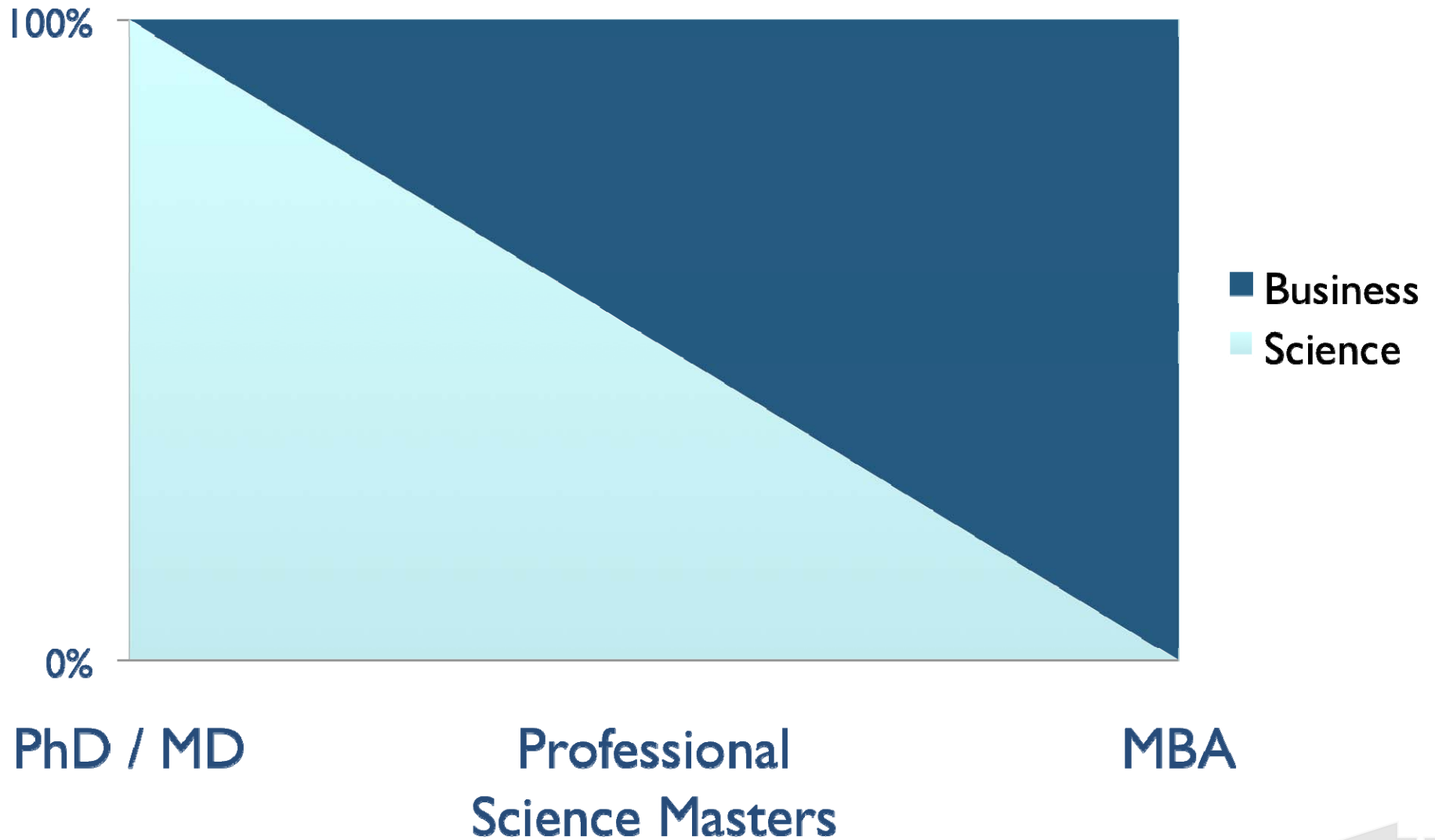
Adaptability

Oral communication

Teamwork



Technical to Broad



Different than MBA?

Operations Management Accounting Marketing
Organizational Behavior, etc.

Career enhancers vs. changers

All backgrounds welcome

Curriculum focus



PhD Alternatives?

- Curriculum focus
- Career options limited
- Timeline
 - 7.9 years study / dissertation (median)
 - 4-6 years of Postdoc experience

Deeply
focused
on a
technical
discipline



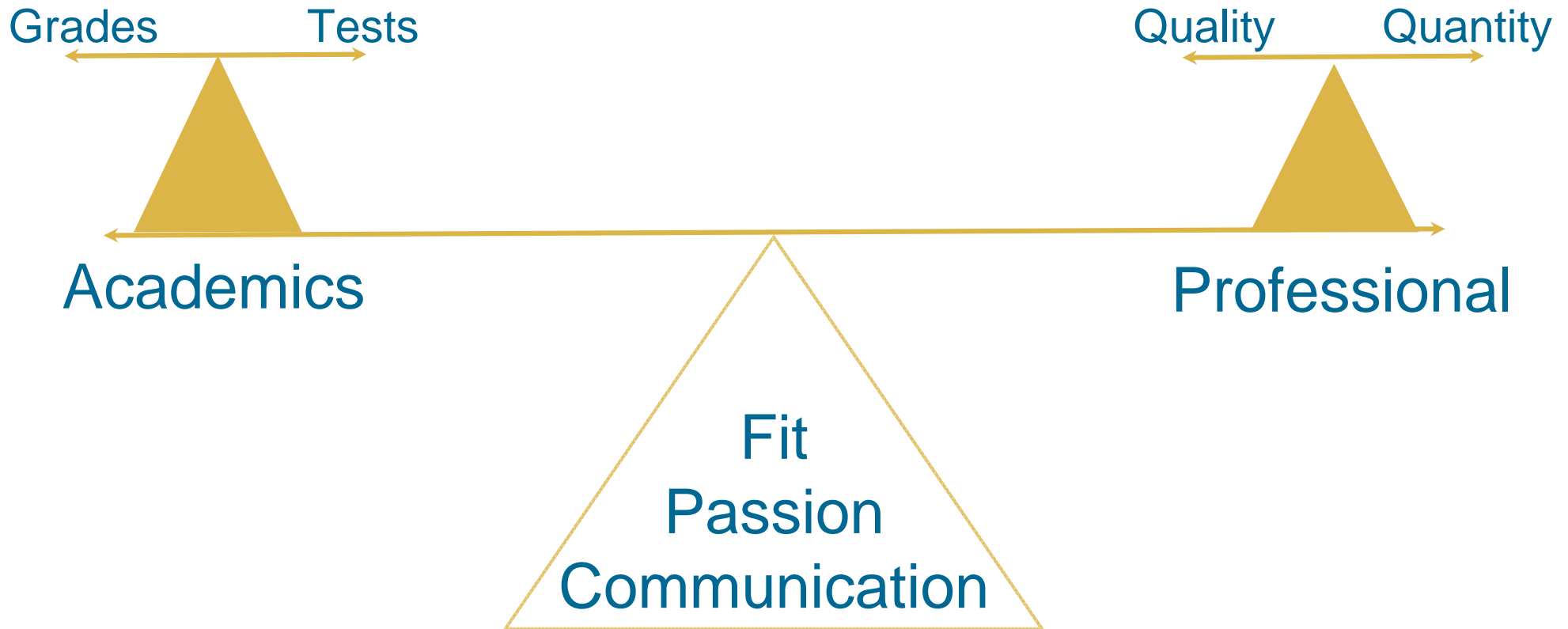
PSMs Create “T” Shaped People

Operations Management Accounting Marketing
Organizational Behavior, etc.

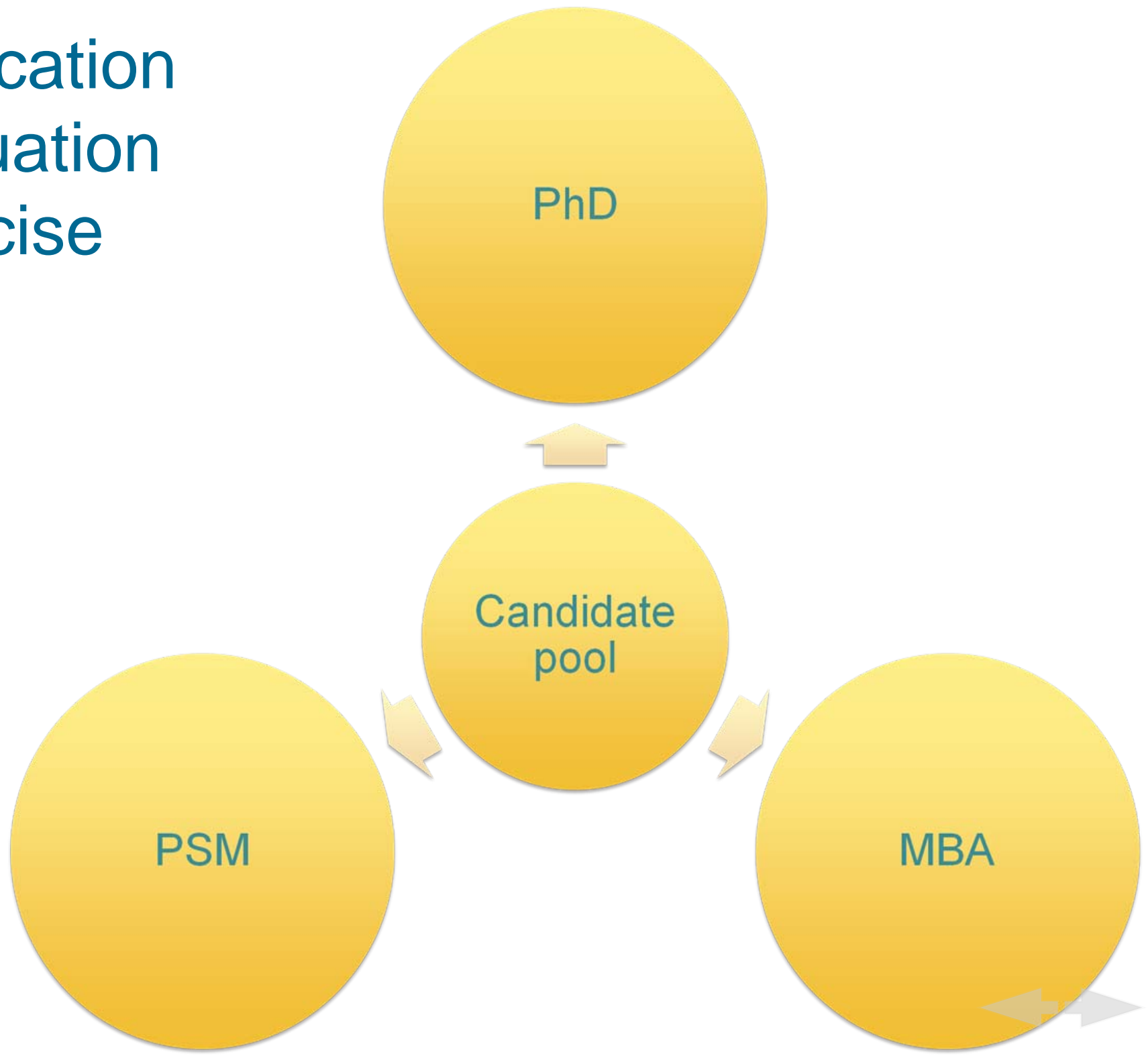
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Admissions considerations...



Application Evaluation Exercise



Toolkit and Discussion

Pink sheet survey of your needs:

<http://bit.ly/9ZNIZw>

NPSMA



ScienceMasters.com

KGI.edu/EducationUSA.html

Admissions@kgi.edu

KeckGrad 