

Assuring 'Student Success' in India: What we can learn from the US research

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ICTIEE 2017 Rajkot

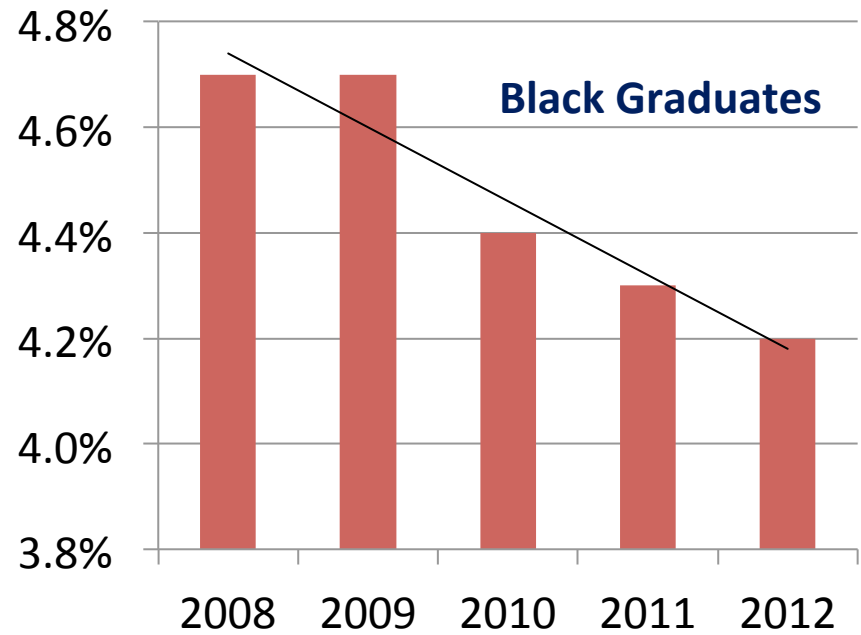
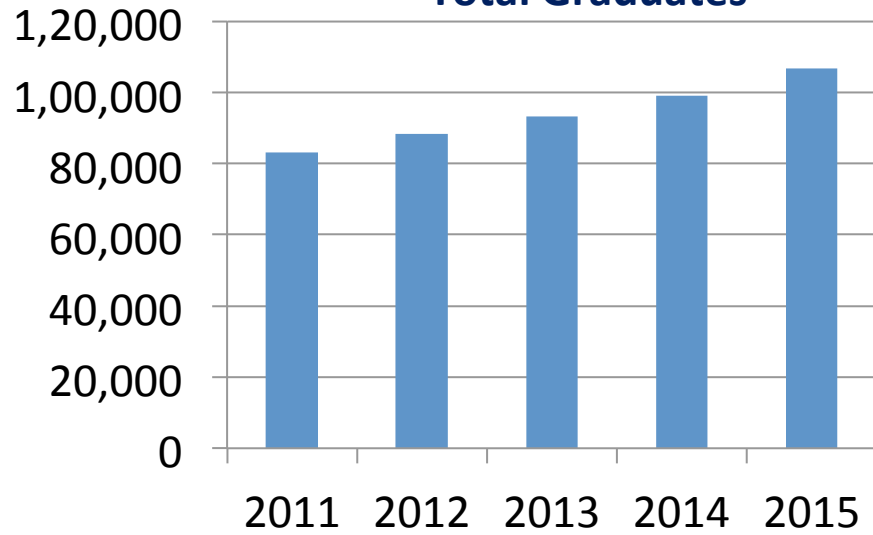
10-Jan-2017

Acknowledgements

- Authors of forty plus papers
- Prof Charles Henderson – Western Michigan University
- Prof Richard Felder – NC State University

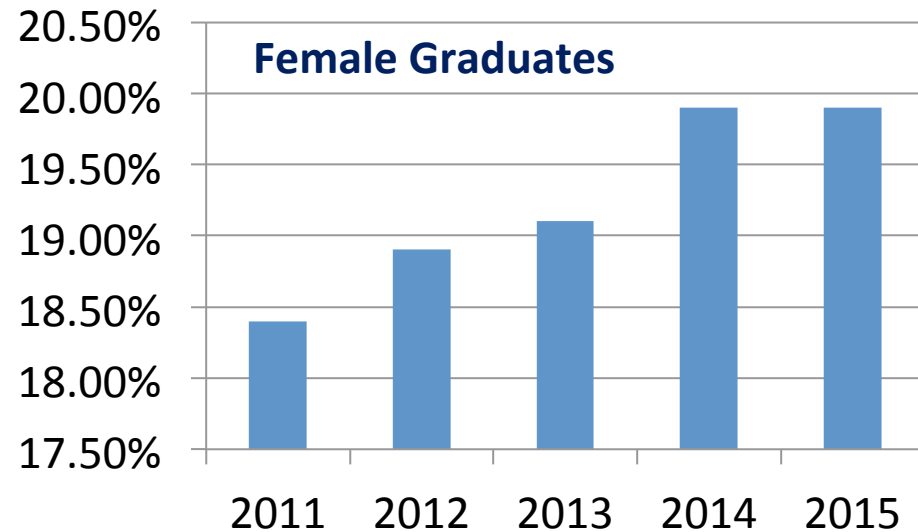
I respect my sources. Research is a team sport, and references and reviews support your teammates - Rick Perlstein (Adapted)

Total Graduates

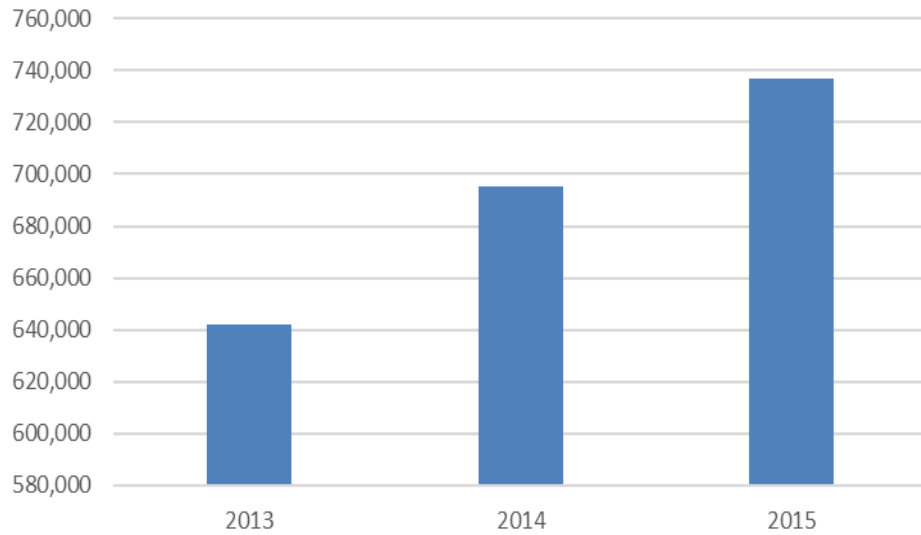


US Engineering Education

- First year attrition is 40 %
- Six year graduation rate is 56 %
- Employability is not an issue



Total Graduates

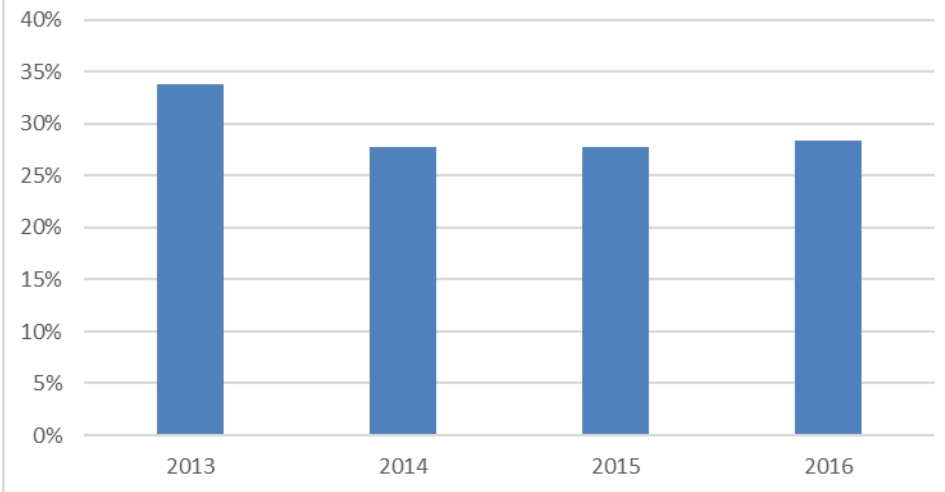


- SC % population 16.5, Quota 15 %, Admissions 15%
- Lower socioeconomic background information unavailable.

Indian Engineering Education

- Employability is only 25 %, employable engineers just better than the US
- Minimal attrition and better graduation rate
- Reduction in hype

Percentage of female enrollment



We define engineering student success primarily as their professional success

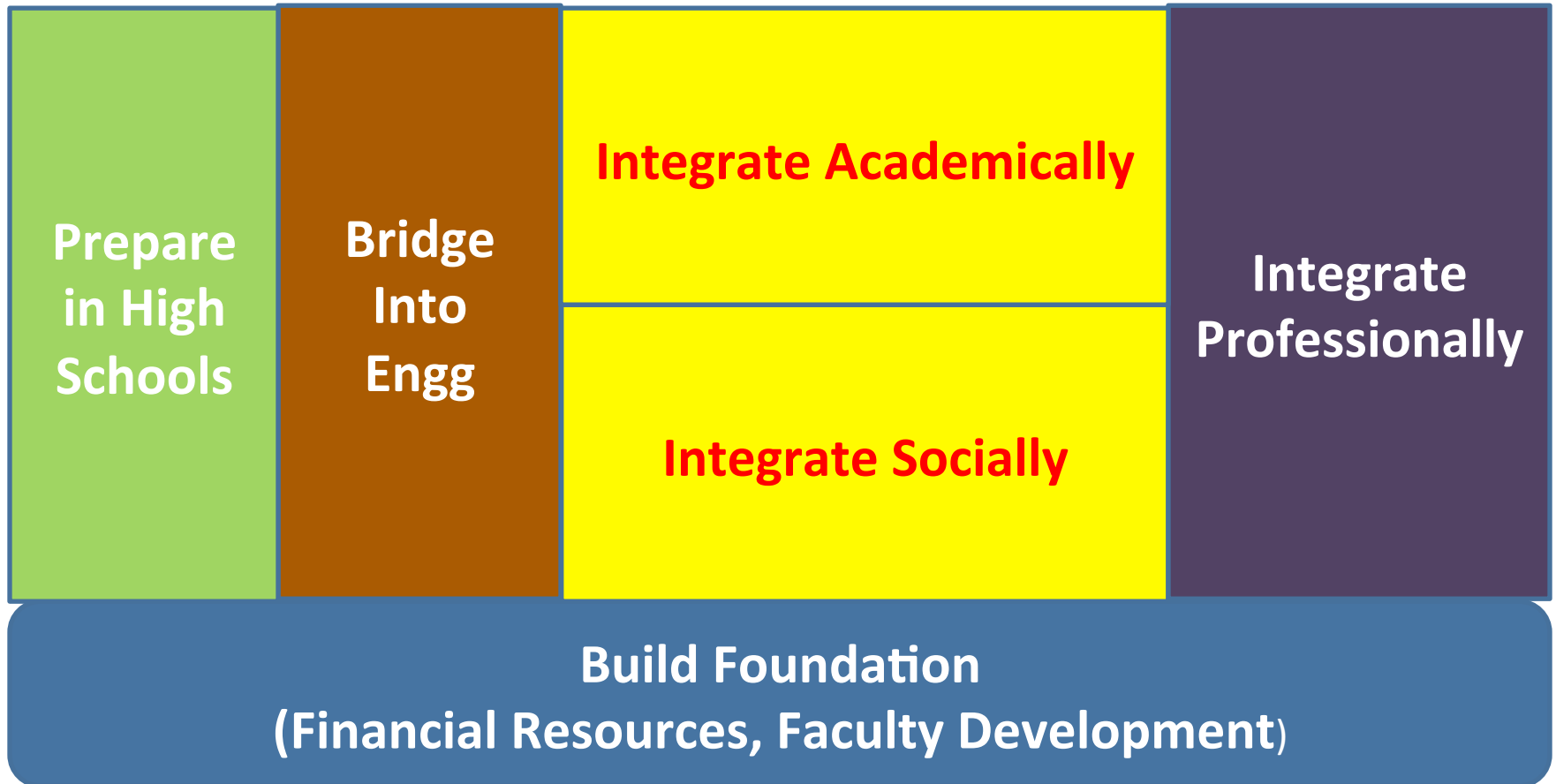
At the next level it includes,

Academic success

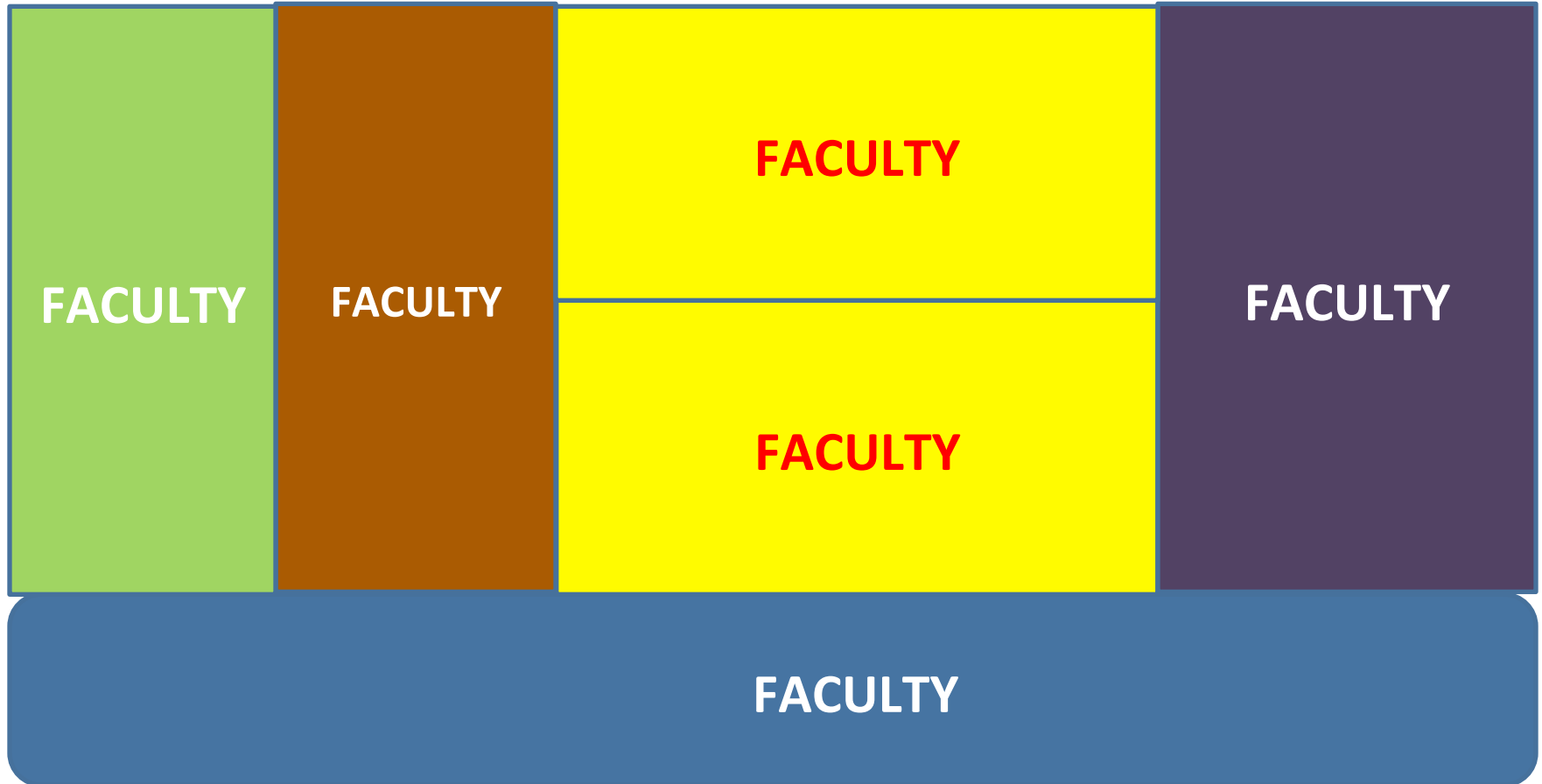
Admission success

Parity success

Classification of research findings



Salient research findings



The role of faculty in creating respectful environments and providing high quality instruction can never be downplayed.. Litzler and Young

Salient research findings

Prepare in High Schools

- Predicting engg perf
- Student decision process
- Admission process bias

Bridge Into Engineering

- Summer bridge programs

Integrate Academically

- Use of RBIS
- A program to discover and explore connections among different non-engg and engg areas
- First year intro to engg thr lab run by all depts
- Learning communities, learning spaces - peer & professional advice, early dept association
- National Survey on Student Engagement
- Use of technology for learning

Integrate Socially

- Mentoring, social support structure / capital
- Developing co & extra curricular talents

Integrate Professionally

- Connect with industry - Create awareness about opportunities

Build Foundation

- Assessing learning skills – LASSI (learning and study strategies inventory)
- Role of faculty and staff as well as financial support

Applicable research findings

Prepare in High Schools

1. Using aptitude tests to catalyze right intake; Appealing to parents and students to respect aptitude and not scope

Bridge Into Engineering

2. Finding leading indicators of performance, and providing support or counsel into alternate careers

Integrate Academically

1. RBIS workshops with active follow-up
2. 1st year 'campus engineering' program
3. Customized assignments & formative feedbacks
4. Learning communities and learning spaces - peer and professional advising, early association with departments
5. Technology based learning
6. Lab sessions - integrate with theory, PBL-TBL

Integrate Socially

1. Developing faculty on affective aspects, NSSE
2. Developing co & extra curricular talents

Integrate Professionally

1. Developing faculty to partner with industry
2. Having Innovative entrepreneurship dev centers

Build Foundation

1. Developing faculty to catalyze holistic development of students
2. Counseling facility, assessing learning skills, having psychology department

It's not so much the details of what successful programs do, rather it's the care with which they do it.

THANK YOU...

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