

Some Personal Comments on PSE Status, PSEAC, and the Tenure & Promotions Committee (PSETPC)

Bill Jorgensen - May 11, 2010, Science Chair's Meeting

The purpose of PSEAC is to help support and improve the university with special emphasis on the physical sciences and engineering. A significant element of this is PSEAC's participation in PSETPC along with the Deans of the College, Graduate School, and Engineering.

Success requires adequate staffing and facilities in both quantity and quality. To whatever extent PSEAC can, it will be fully supportive of justified efforts to expand the PSE faculty and to maintain or acquire state-of-the-art facilities. Currently, many PSE departments are under-staffed. This is recognized by the administration, and in spite of the current economic climate they have been very supportive as evidenced by approval of multiple junior and senior hires in many areas including Chemistry, Mathematics, and Electrical and Mechanical Engineering. Unfortunately, much needed facilities projects including YBB and Kline Chemistry have been on hold. Based on recent statements by the President, optimism is justified that these projects will be moving again soon and that they will provide a preamble for further improvements on Science Hill. Simultaneously, the investments in Yale West Campus (YWC) are also benefiting PSE departments through participation in YWC Institutes and access to core facilities from screening to high-performance computing.

Concerning quality of the faculty, it is clear that YWC is providing extra incentive for attracting top scholars as new senior appointments, as in the cases of John Ellman, Jo Handelsman, Nancy Moran, Howard Ochman, and Jim Rothman. It is also important to apply comparably high standards for internal promotions. One measure of success is reflected in the recent rankings of graduate programs in US News (<http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-science-schools>)

For the sciences & engineering, listed below is who is ranked #1 and Yale's ranking:

Field	#1	Yale #
Biological Science	Stanford	7
Chemistry	Caltech/MIT/UCB	13
Computer Science	CMU/MIT/Stanford/UCB	20
Earth Science	Caltech/MIT	12
Engineering	MIT	39
Mathematics	MIT	10
Medical School	Harvard	6
Physics	Caltech/H/MIT/Stanford	11
Statistics	Stanford	33

There are also rankings in other fields. E.g., for Yale, Law (#1), English (#2), History (#1), Psychology (#3), Economics (#6), and Political Science (#5).

As always, one can argue about the validity of the rankings. For Chemistry, I feel they are accurate ± 1 position. Law and History are probably not quibbling.

The PSE departments have some reasonable rankings, but overall improvement is desirable. Size is an issue, but Caltech shows it is not the only one. Our facilities have not been superb in all areas, but they have also not been poor. My personal observation is that our external senior hires are almost always excellent, while our internal promotions are not infrequently weaker than at the top schools. There is a tendency to promote people who show low to moderate productivity with mitigating claims that they are a great intellect, they have unusually high standards, and/or they are on the verge of picking up. In my experience, such cases rarely pan out well. It is also my impression that Yale's most highly ranked departments also rank highly in selectivity on promotions.

Rankings do matter. It is harder for someone to leave a department ranked #3 than #13. The combination of this fact and weak promotions leads to loss of stronger faculty members to higher ranked institutions and accumulation of less strong ones. Such losses are both disheartening and expensive in dollars and time. It is also easier for top-ranked departments to attract the best new faculty members and graduate students. More NSF Fellows coming to Yale would be welcome.

The request here is that these issues be considered in departmental votes for promotion and that the departmental votes should truly reflect the proven success and promise of the candidate and the enthusiasm of the faculty. It is best for the departments to gauge these items accurately rather than leave it to the PSETPC. If the departmental votes are routinely overwhelmingly positive, it becomes natural for the PSETPC to consider that fact in gauging the significance of the votes.

Some other personal observations on promotions and promotion materials:

- (1) It is rare in this Lake Wobegon era to receive multiple negative evaluation letters.
- (2) Talking about a candidate being "above the bar" is ill-advised. The image is of a jack-knifed pole vaulter squeaking by. There should not be a bar in sight for the soaring candidate.
- (3) Candidates who require the maximum time at each promotion step are generally not the most compelling. The most compelling candidates often receive job offers from competitive institutions.
- (4) Trying to leverage an offer from a non-competitive institution tends to backfire.
- (5) We all know people who have done very well after not being promoted. It does not mean that the wrong decision was made given the facts at the time. It does mean that there are always new opportunities and our system is open-minded in recognizing success.
- (6) If a mistake is never made, the decision makers are perfect or their standards are too low.
- (7) Citation indices have little meaning for at least 10 years post Ph. D. beyond reflecting citation of publications from graduate and postdoctoral work.
- (8) It is important to keep the personal and professional separate in matters of promotion.