

ON GILL'S ULTIMATE REPORT—NOI SPERIAMO

Sir:

Quite recently Provost Gill of SUNY Buffalo has visited upon us an evaluation of graduate Chemical Engineering efforts, in the spirit (indeed in carbon copy) of the celebrated Cartter report et seq. That the "Gill Report" has provoked comment, I have no doubt. That the "Gill Report" has done justice to Minnesota, I have no doubt whatsoever. They are "uno numero." But that, fair reader, ends equity. Witness the "top 20." Look into your minds, I plead. Permit me a few undemocratic observations.

As I am a professor at Notre Dame, I comment not upon our statistically established status in the Gill report. In fact, for reasons set forth below, we could not care less, save for the obvious acknowledgment that the University of Minnesota is rightfully ranked No. 1 and several other quite distinguished departments hold an elevated status.

But what is the nature of that properly first ranked department? It is, pardon me, catholic in instinct and implementation. The other 19 of the top 20? To be sure, in catalysis and fluid mechanics, Stanford is pre-eminent. In the several areas of chemical engineering science, surely Delaware emerges. One can go on, citing specific areas of expertise and assigning particular departments the role of "uno numero." My point, which I trust is virtually obvious, is that the ranking of graduate departments of chemical engineering must respect particular areas which, though ignored in the past of the unit operations mentality, now yield to delineations and specializations heretofore unanticipated. Which is to say, how do we rank a chemical engineering department of strength in, say, surface catalysis (e.g., Stanford) with one of signal merit in, say, thermodynamics (e.g., Florida or Oklahoma)? 'Tis the problem, dear reader, of contrasting oranges and apples.

Permit me a further illustration: VPI boasts a rather

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Joseph A. Bergantz, Professor of Chemical Engineering at the State University of New York at Buffalo, died June 5, 1976. He was the founder and first Chairman of the Department of Chemical Engineering, which was established July, 1961. He served in that capacity until 1969. He later served as Associate Provost of the Faculty of Engineering and Applied Sciences at SUNY/Buffalo. He also was a Vice-President of the Creative Education Foundation, Inc. of Buffalo.

Memorial contributions can be made in support of the Joseph A. Bergantz Memorial Reading Room by sending checks, payable to the University at Buffalo Foundation Inc. c/o The Department of Chemical Engineering, State University of New York at Buffalo, Buffalo, N.Y. 14214.

strong chemical engineering group (in my opinion) in the area of fundamentals of food sciences, including that most glorious of inclinations—wine technology. Delaware, a department of admirable scope and depth, claims not such expertise. How does the Gill report rank these departments? See for yourself. MIT boasts of a just reputation insofar as they and Michigan virtually invented "our trade," at a time when Minnesota could claim naught but Bronko N. No informed citizen of our chemical engineering group would or could place MIT and/or Michigan in the same province of universal excellence as is now occupied by Minnesota. Indeed, I, quite frankly, am very, very, suspicious of a goodly number of rankings, ala Gill, which place greats and near-do-wells within the top 20. Indeed, the top 30 or 40.

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Editors Note:

The following response was received from Provost Gill. (For another approach to the rating of departments, see the paper by Griskey in this issue.)

RESPONSE TO J. J. CARBERRY

Sir:

If Professor Carberry (B.S. 1950; M.S. 1951, Notre Dame; PhD 1957, Yale) is trying to say that peer evaluations, which disagree with his opinion, are meaningless, I disagree with him completely. It seems that Carberry feels that one man's opinions are superior to collective peer judgments. However, it has been demonstrated in many studies (i.e., Bernier, et al, **Chemical Engineering Education**) that collective peer evaluations correlate highly with objective measures of excellence such as numbers of papers published, research expenditures, citations, PhD's produced, etc.

I'm sorry that the chemical engineering departments are not viewed by other faculty colleagues the way Professor Carberry would like them to be. But I can assure him that no one at Buffalo, including me, participated in any of the rankings, including those of Notre Dame and Yale.

Faculty members at all ranks from 19 schools other than Buffalo provided useable responses. Some schools provided more than one useable response. To my knowledge no bribes of any kind were offered to influence the rankings one way or another.

It is worth noting that the introduction to the report includes the following statement:

"An attempt was made to obtain what seemed to be a reasonable mix of raters among the various academic ranks of assistant, associate, and full professor. However, *this study is not purported to be as comprehensive and has not been designed with the care given to the details of statistical design that characterized the two previous American Council on Education studies.* Therefore, the results should be viewed in this context. That is, no doubt departments which should have been included have been omitted and the ratings of those departments which have been included certainly are subject to significant, but undetermined, errors."

State University of New York at Buffalo
William N. Gill

15. Leppert, G., and Zimmerman, J. R., "A Design-Oriented Freshman Engineering Program," Proc. 6th Nat. Design Conf., Detroit, 153, (1973).
16. Zimmerman, J. R., and Hawks, R. J., "Teaching Programming As An Introduction To Engineering," *ERM*, 7, 3, 70, (1975).
17. Leppert, G., "Expanding Design Participation at Clarkson," *Eng. Ed.*, 64, 5, 367, (1974).
18. Youngquist, G. R., "An Introductory Design Course For Engineering Freshmen," *Chem. Eng. Ed.*, 9, 1, 32, (1975).
19. Taylor, J. R., *Model Building For Architects and Engineers*, McGraw-Hill, New York, (1971).
20. "American Engineering Model Society Model Handbook," 2nd. Ed., AEMS, Ross, Ohio, (1976).
21. Plastruct, Los Angeles, California; Po'lks, New York City; Northeastern Model Materials, Andover, Massachusetts; Small Sales Company, Shawnee Mission, Kansas.
22. Freund, C. J., "Engineering Design Verges Upon Engineering Art," Paper 63 WA-142, 1963 ASME Winter Annual Meeting, (1963).



CHEMICAL ENGINEERING DIVISION ACTIVITIES

Nine ChE's Receive Awards at ASEE Meeting

ASEE president George Burnet has pointed out that at the recent ASEE Annual Conference at Knoxville a number of chemical engineers received special recognition. Following is a list of awardees.

Lamme Award	John J. McKetta
Curtis W. McGraw Award	John H. Seinfeld
3M Lectureship Award	Abraham E. Dukler
Western Electric Fund Award (Illinois-Indiana Section)	Ralph E. Peck
Western Electric Fund Award (Middle Atlantic Section)	Angelo J. Perna
Western Electric Fund Award (New England Section)	James R. Kittrell
Western Electric Fund Award (North Central Section)	Alan J. Brainard
Western Electric Fund Award (Pacific Southwestern Section)	Fred H. Shair
Western Electric Fund Award (St. Lawrence Section)	Joseph Estrin

Dr. Burnet also requested that it be reported that the editor of *CEE* received a special award from the Chemical Division which was accepted on behalf of the staff of *CEE*.

LETTERS: Carberry

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How, for example, in the name of God, Zeus or whatever diety prevails in Buffalo, is Yale* placed in the tail end "of the class" relative to Buffalo? How is it that Yale University is ranked with Judas in the Gill report when, in fact, an even casual survey of their research endeavors would prompt even a Big-8 anti-Ivy league-type to conclude that the graduate research-study program at Yale is vastly more fundamentally significant than that of one-half of those departments blessed with top 20 categorization by Gill et al.? How is it that perhaps several of the departments assigned a rank in the top twenty by Gill et al. (including, oddly I contend, his university) would, on survey, be totally innocent of the nature of Yale's labors and the Journals within which the Yale Chemical Engineering people deposit their findings?

I leave it as an exercise to Gill enthusiasts to seek out those non-AIChE Journals in which Yale Chemical Engineering people choose to publish their research findings, which areas *they* choose to pursue as *ultimately* relevant to the science of chemical engineering.

We, in chemical engineering, have gone well beyond the usual pedestrian levels of research inquiry. Survey your colleagues, dear reader: where do they publish? Perhaps in an AIChE publication; perhaps elsewhere. Our noble calling has become, happily, diffuse insofar as borderlines between chemical engineering and chemical physics are no longer clear and well defined interfaces. This I welcome. Provost Gill's survey respects not this reality.

Yale has been and is and will always be a great university, a summation of innovative departments of distinct, unique insight whether in the area of literature or chemical engineering. Having had a distinguished department of traditional chemical engineering for enough decades to even inspire a Buffalo, they now choose to pursue a program of education and research in the chemical engineering sciences, which enterprise might ultimately enlighten over-inflated Buffalo.

As this comment is quite personal, permit me to fashion the "Carberry Report"—an evaluation of graduate chemical engineering departments in two categories: general (catholic-note, please, the lower case c) and specialized (I leave it to reformation theologians to fashion a more definitive category):

General:	Specialized:
1. Minnesota	1. Stanford
2. Delaware	2. Yale
3. Berkeley	3. Princeton
4. Carnegie-Mellon	4. Pennsylvania
5. Illinois	5. Wisconsin
6. Northwestern	6. Everyman's School

Beyond that, my friends and enemies, its "to each his own." As for the unmentioned, do your own grand thing. The "Carberry Report" respects all who labor in the vineyard, even Gill's Buffalo.

U. of Notre Dame
J. J. Carberry

*of which I am proud to be an alumnus.