



The Graduate School
Technion – I.I.T

Past – Present – Future



* The Graduate School
- is the Soul of the Technion

It has brilliant graduate students and produces new generations of researchers and the technological leaders of Israel.

* Graduate Studies

The Master Degrees:

MSc

Master of Science

ME

Master of
Engineering

MBA

Master of
Business
Administration

and the Doctorate:

PhD

Doctor of
Philosophy

The Masters Level

	# of thesis credits	# of course credits
* MSc with a Research Thesis	20	16-24
* MSc with a Major Eng. Project	20	16-24
* MSc with a Final Paper	12	28-36

under the guideline of a faculty/adjunct advisor, and trains students to do advanced research, a project work or literature surveys.

* **ME** no research but with a final project course - 34+6

* **MBA** for students with various previous backgrounds (with an emphasis on engineering) furthers managerial skills. 48-60.5

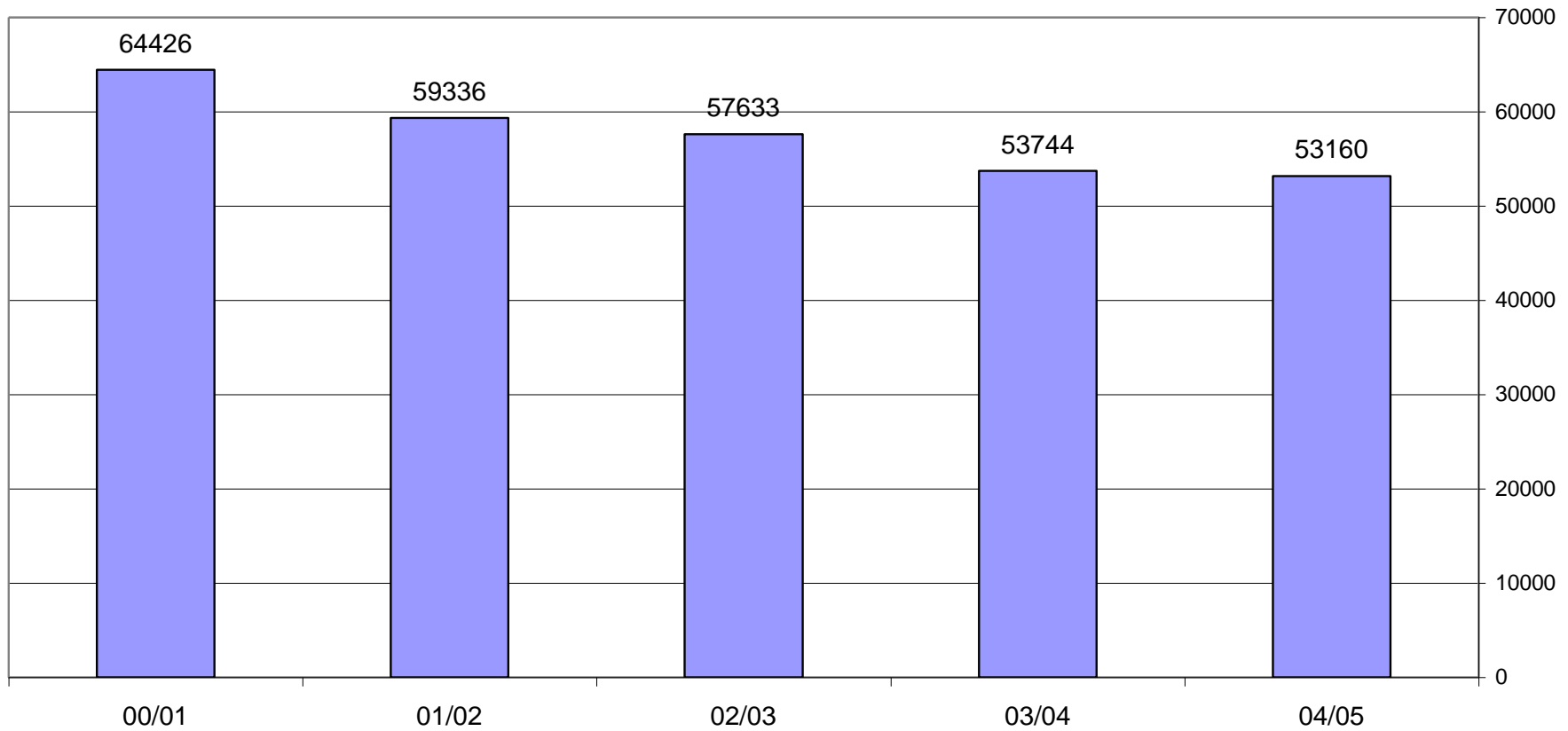
The PhD Level

- A major research leading to publication/s in high quality international journals.
- Under the guidance of a senior faculty advisor.
- Prepares students for:
 - Academia
 - Industrial R & D
 - Leadership

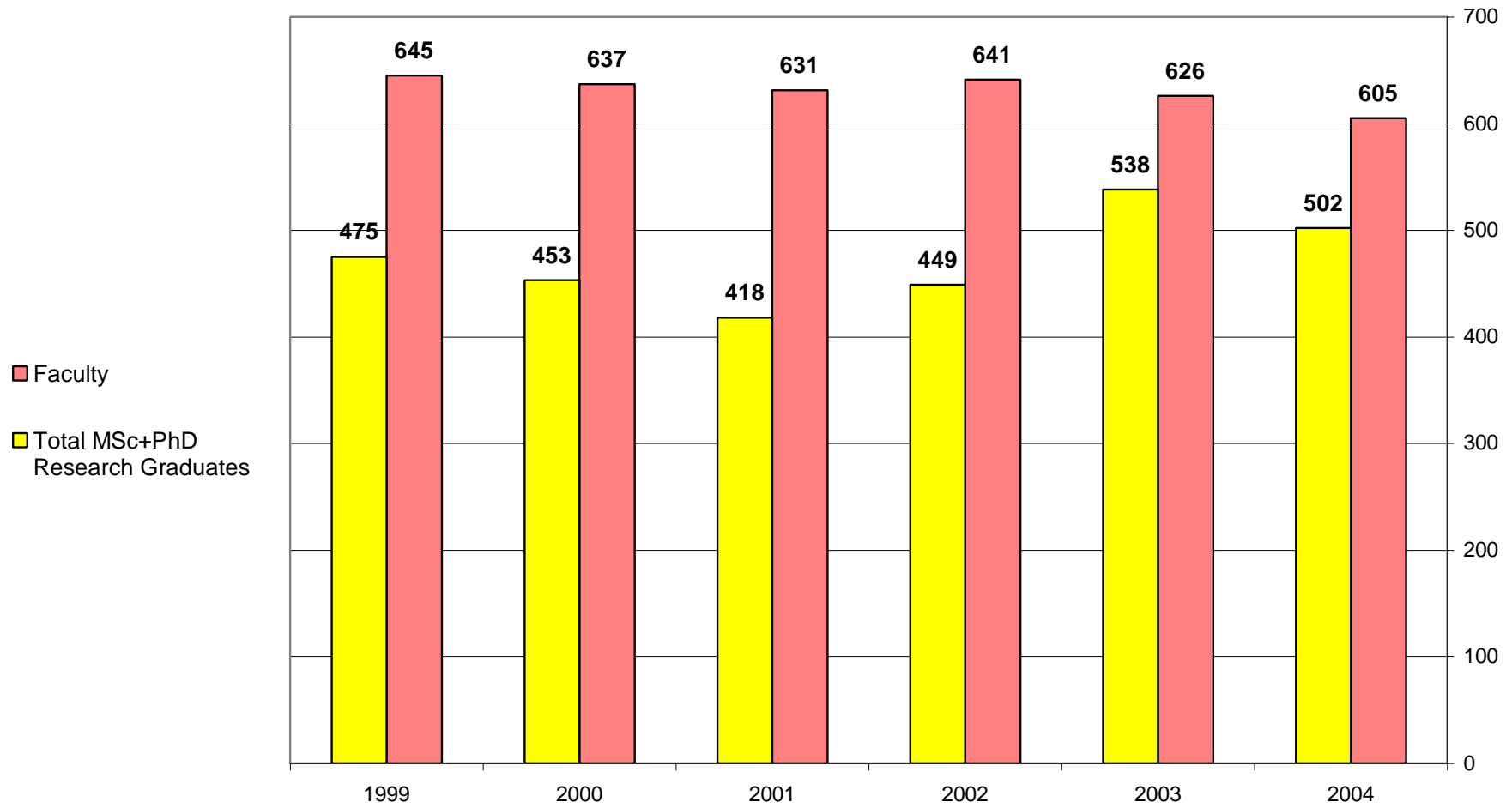
Graduate School Funding 2001-2005

in scholarship portions (around 1000 NIS each)

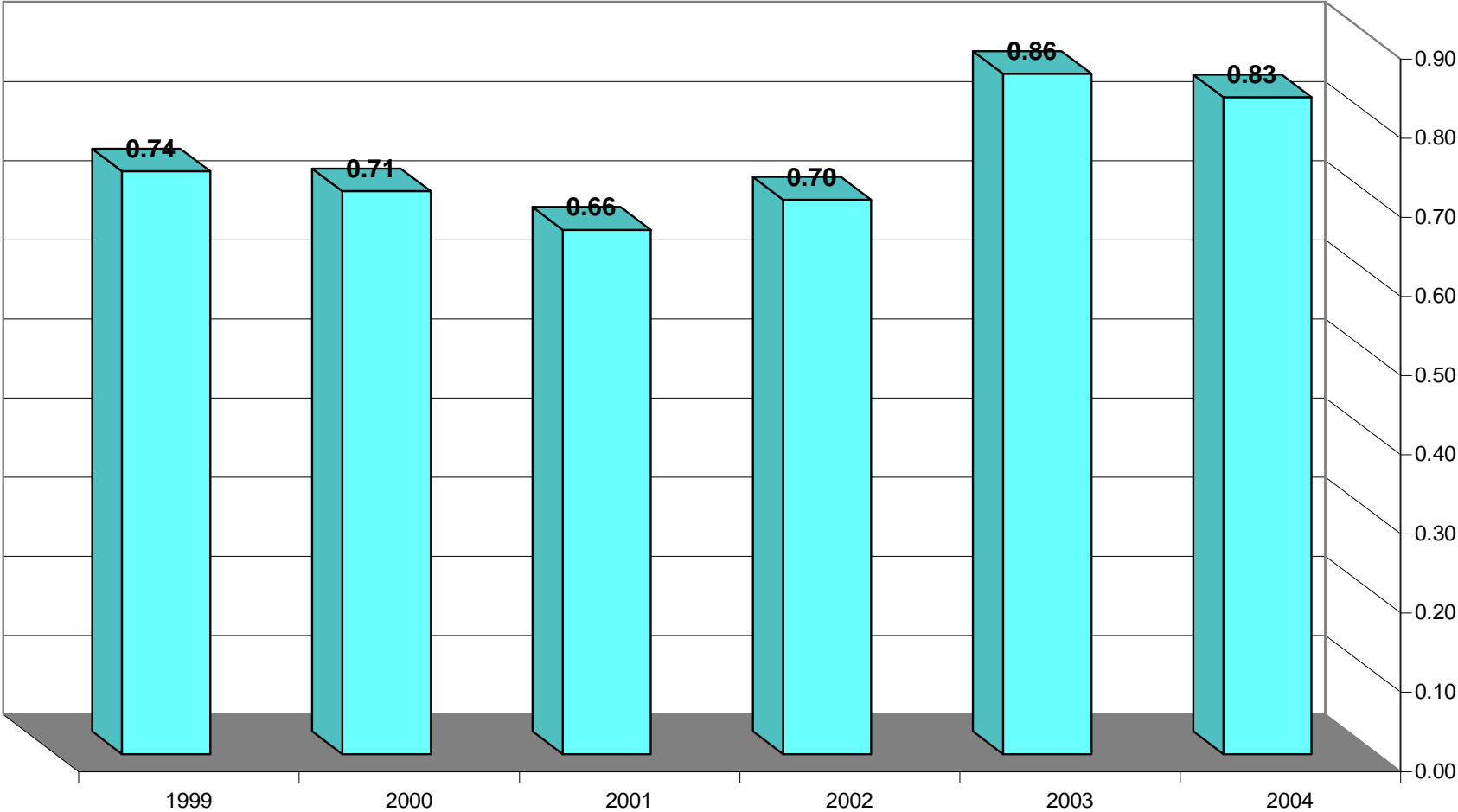
Scholarships are given only to research students (and mostly for those fully committed to full time research at the Technion).



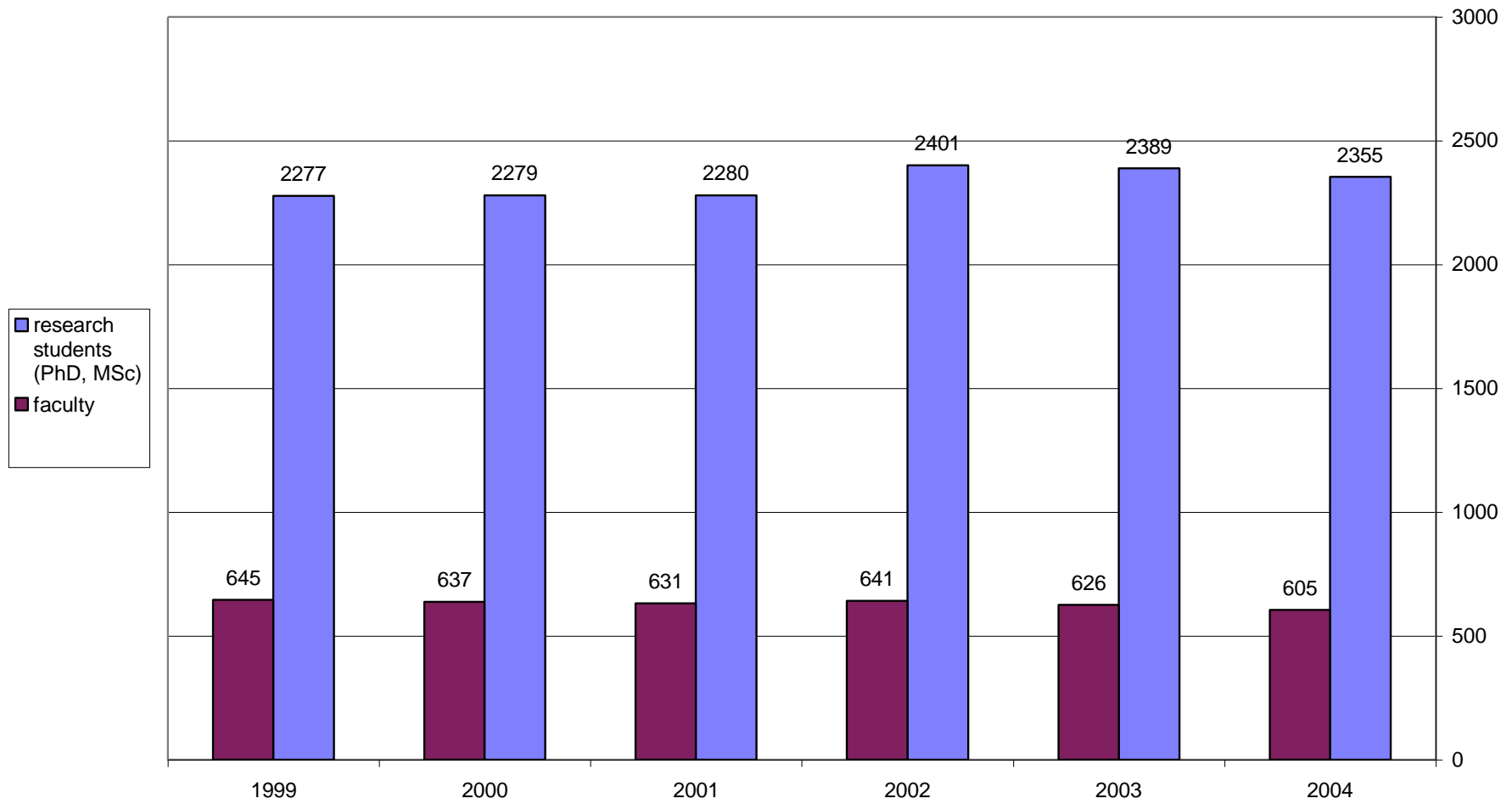
Total Faculty vs. Total PhD and MSc Research Graduates 1999-2004



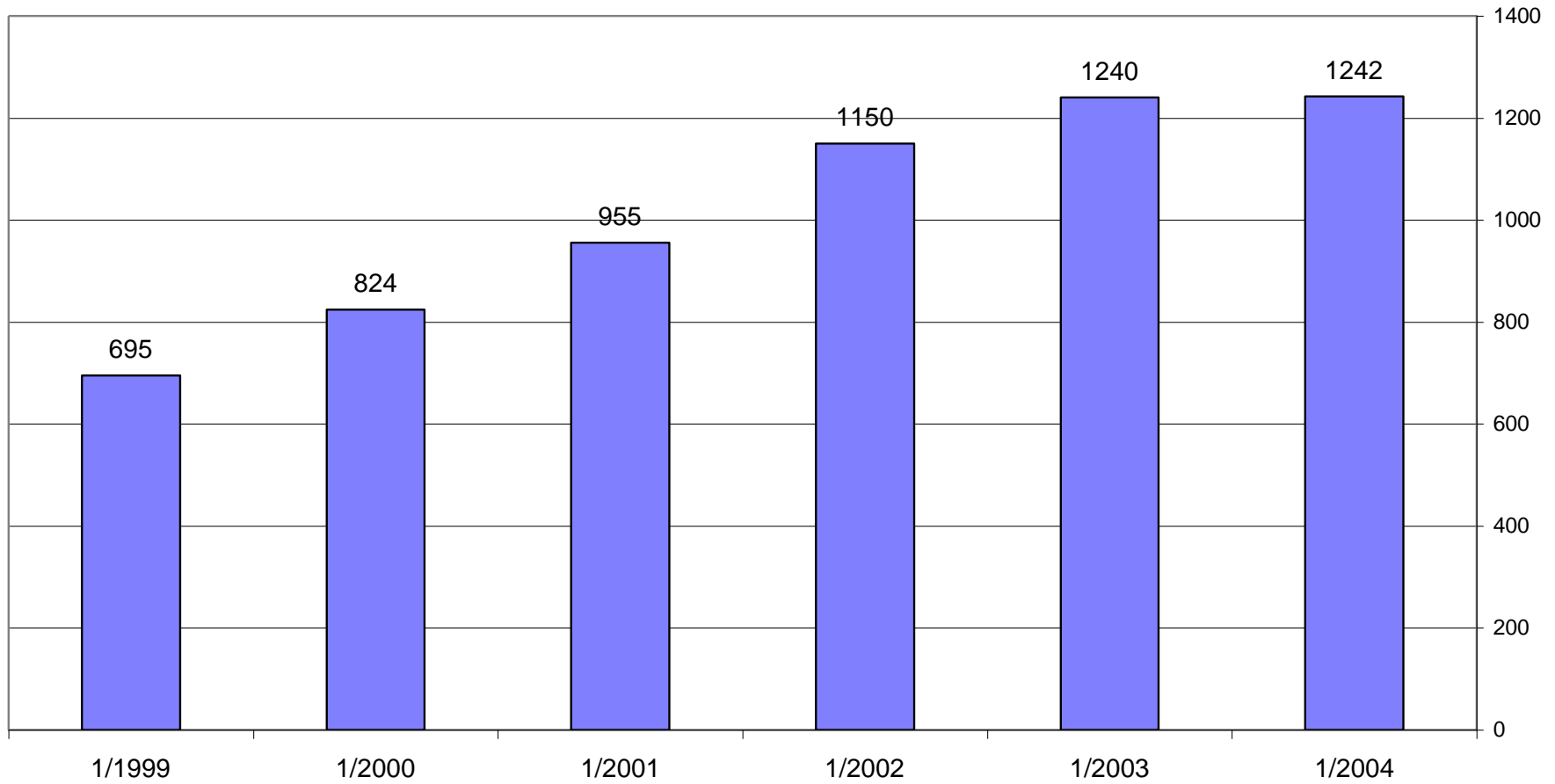
Ratio Research Graduates/Faculty 1999-2004



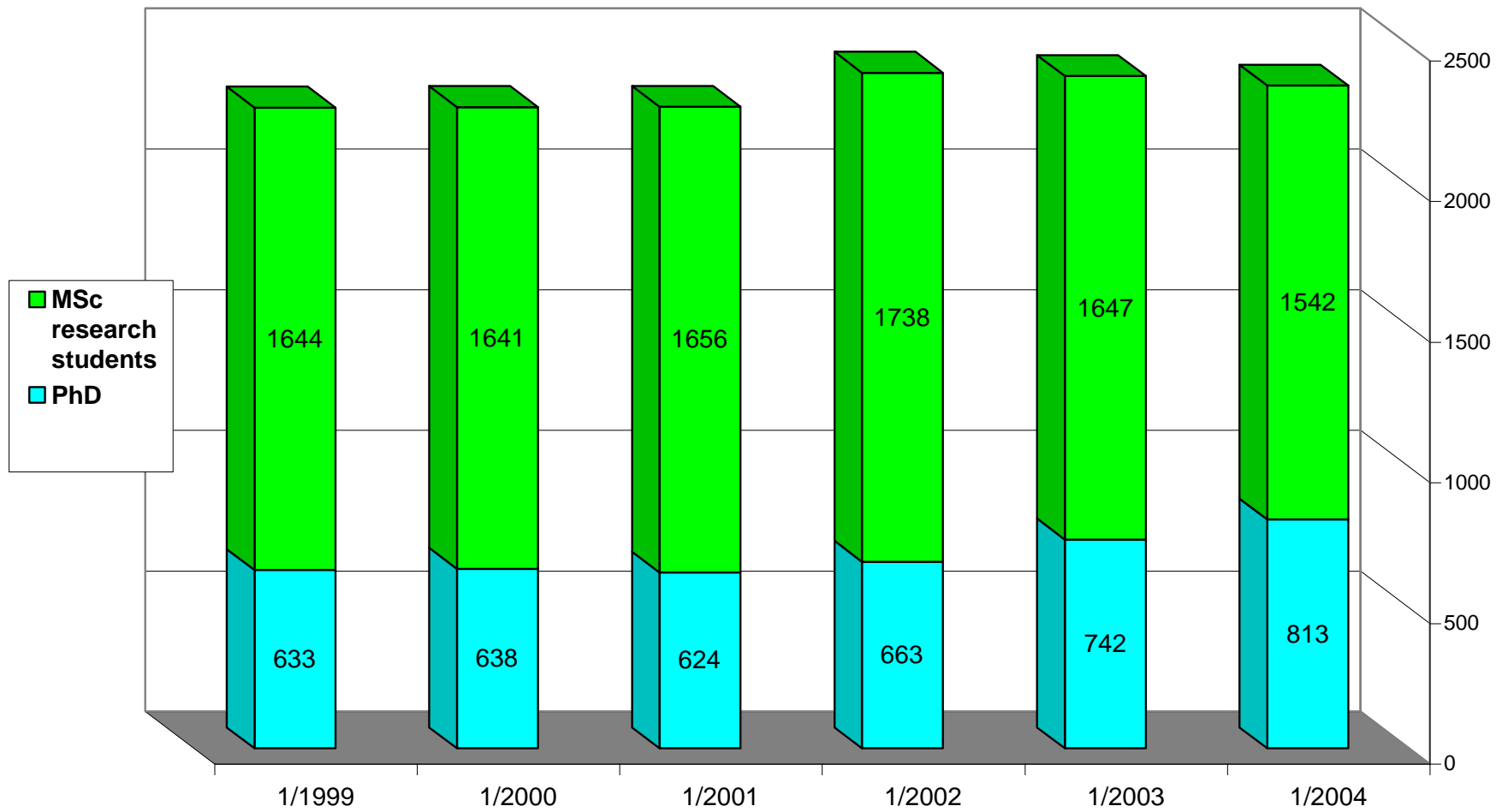
Total Faculty vs. PhD and MSc Research Students 1999-2004



Numbers of ME and MBA (Non-thesis Master Students) 1999-2004



Numbers of MSc and PhD Students 1999-2004



* **Research Capacity**

Technion faculty presently advises an average of about 4 research students.

If we have ~ 600 faculty members (every 7th year 1/7 of faculty goes on sabbatical) the maximal advising capacity is limited to 2500 research students.

**Therefore we may aim for ~1250 MSc research students
~1250 PhD students**

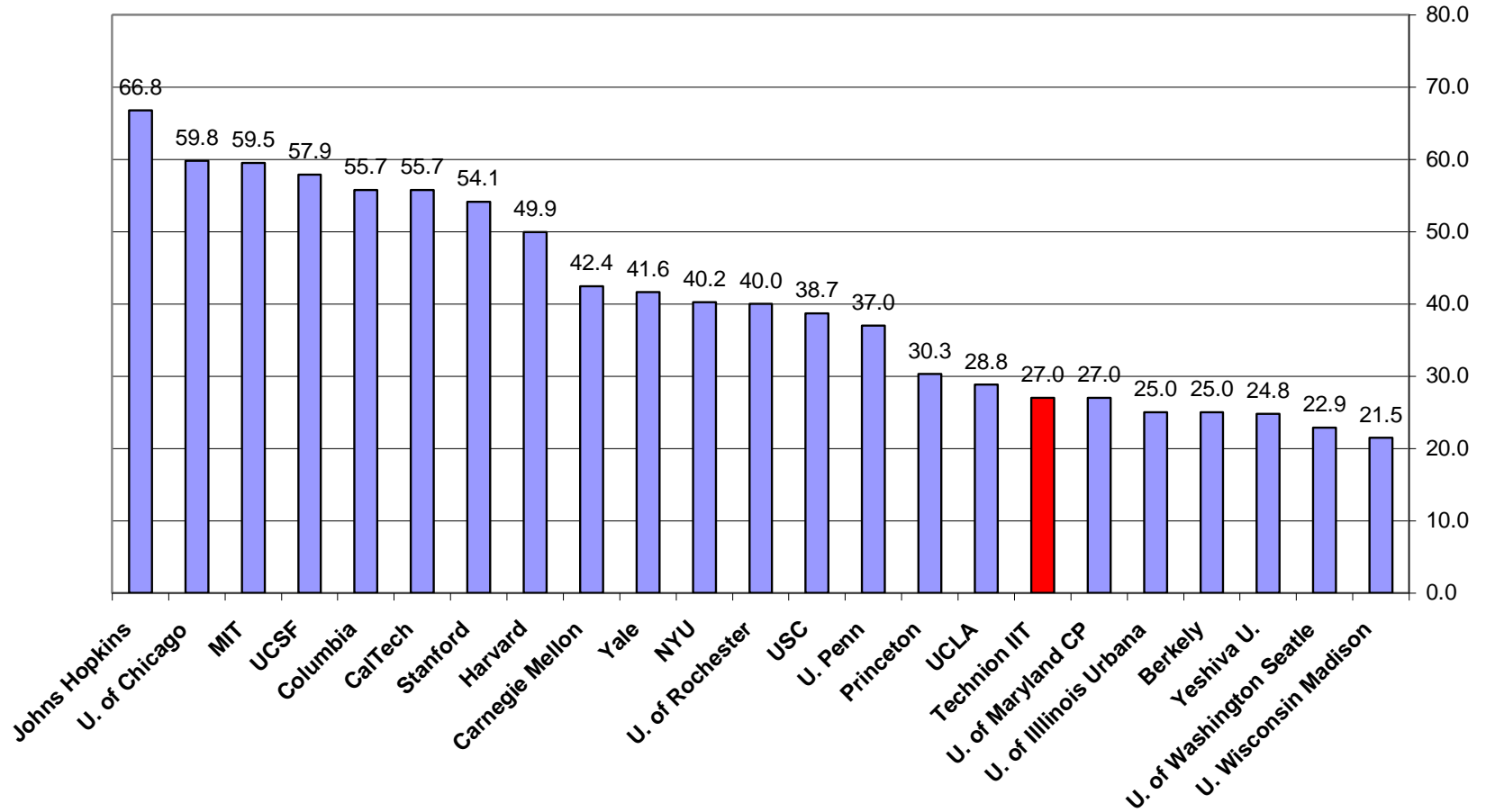
(And we are almost there!)

*** The Future**

To increase the Graduate School –

- 1. We need to hire more faculty and/or encourage faculty to advise more students. An average of 6-7 students is, in some fields, quite a reasonable load.**
- 2. We need more support for internal research students (note that PhD and research MSc students cost more and stay longer with us).**
- 3. We need to increase enrollment in non-research master programs (and in this to use wisely the "Continuous Education and Advanced Studies" unit).**

Percentage of Graduate Students in the Technion and in USA leading Universities



*** Proposal for the Future**

Make the Technion an advanced research university by establishing a 5-years non-research Master's degrees as the main study program in each department. Any student will have the option to leave after 3 years with a BA degree (in some fields) or after 4 years with a BSc degree. The best students will have the option to enter to an MSc/PhD research program, from the five year program. This way we can have a Technion which is essentially a Graduate School. That will also produce high level undergraduates. The ideal numbers, in my opinion, are 6000 undergraduates + 6000 graduates (who will continue past the 4th year, of which ~ 3000 will be research students – MSc's & PhD's).