

AC 232

BOX 20 FOLDER 10

DRESSELHAUS Progress of women 1900s

*File with
Studies
of Women
Students
at
MIT*

**Brief Summary of
Meeting of Women's Faculty Luncheon Meeting
of October 28, 1987**

Mildred S. Dresselhaus

As background for my notes on the October 28 Women's Faculty Meeting, we have held Women's Faculty meetings with undergraduates every few years. On the basis of the students' comments, I felt that major progress had been made since the last meeting several years ago with regard to increased self confidence and higher professional expectations for our women undergraduates. The undergraduate guests were not so surprised to learn that on the average women undergraduates at MIT performed at least as well as men, and were more involved in extracurricular activities. From my vantage point, I saw a number of examples or improvements in the undergraduate academic environment in the last few years with regard to acceptance, class participation, housing, though further progress was still needed in these areas. Some areas of concern common to all students were cited: pace and pressure, impersonality, isolation, though women may react more sensitively than men to these concerns. Some issues of particular concern to women remain: second class treatment in class, in lab courses, by technical support staff, in coed dormitory situations; lack of respect by faculty, TA's and peers, need to prove oneself, need for more equitable athletic opportunities. Some areas where women found particularly positive support were: good advisors, role models, women's discussion groups, women friends, the ESG family, Women's studies. There was a clear signal about a desire for more single sexed housing for women, more women faculty, more community spirit, better integration of study and living groups in the overall undergraduate experience.

The time has perhaps come for another initiative by the Committee on Women Students Interests in the area of the undergraduate academic environment for women students.

MINUTES FROM THE WOMEN'S FACULTY MEETING
OCTOBER 28, 1987

Conveners: Holly Sweet (ESG)
Lynn Roberson (ODSA)

Student Panelists: Marya Lieberman (5,'89); Irma Perez (4,'88); Shawn Williams (6-1,'90); Lara Descartes (12,'90); Lori Tsuruda (7B,'89); Janaki Abraham (8,'88); and Karen Chenausky (24, '89).

Agenda: Women undergraduates share their experiences as MIT students. The seven student panelists represented a range of departments, living groups, racial and ethnic backgrounds, and years at MIT.

The following questions were asked of the panelists; a composite of their comments are provided below.

QUESTION 1: "Imagine that you are talking to a woman wh is thinking of coming to MIT as an undergraduate. She is interested in your impressions of the Institute. What would you tell her?"

- a) You can face a lot of condescension from professors and male students. You have to remind yourself to feel confident.
- b) You don't have time to think about your own life, values and identity; there's no time for your connections with other people or your other interests. You can't make an integrated life here.
- c) Making priorities is difficult. You feel guilty for taking time for friends, and you are pressured to sacrifice relationships for grades. You can feel torn, and you need to realize the problem is not you.
- d) You are often made to feel inferior and dumb here. Males say "everything is easy" but you might feel something is difficult. You have to try to keep perspective and talk to your friends.
- e) In some ways MIT can be flexible to suit your needs, but alot of times you just accept the status quo and let things happen, try to keep going as best you can.
- f) You feel isolated, cut off; sometimes it seems that only the cold buildings of the Institute and you exist.

QUESTION 2: What has the classroom and lab experience been like for you here?

- a) Women need to prove themselves. They are not seen as an individual first. Professors are often condescending until you prove you can do better than other students; doing average is seen to be doing "worse". But if you do really well then they say you work too hard. Catch 22.
- b) Asking for help is seen as giving up and that you can't do it on your own. Often tutors assume women students know nothing and will mess up everything. Tutors often assume they have to review basics or give alot of unnecessary advice and take over.

- c) It's hard to ask questions in class - especially when you are so outnumbered. Humiliation such as "everybody should know x..." is often used. It's also hard to offer suggestions or answers in class because we're not listened to or we have to explain ourselves alot.
- d) In some departments one feels isolated from other women students and we don't know the women professors.
- e) Collegial relationship with male professors is difficult. A professor sexually harassed a student when she went to talk with him about a project and then he told her not to tell anyone. On the other hand, a woman student inviting her professor to an academic event was regarded with suspicion - implying perhaps a question of sexual interest rather than intellectual interest.

QUESTION 3: "What has the co-curricular experience been like for you here in terms of living groups and activities?"

- a) Coed dorms are often male-run. Men are in the majority and sometimes don't accomodate themselves to the needs or concerns of the female minority. Men need to be educated to be more sensitive. In one dorm, women said they were treated in a very condescending manner. Women's activities get lower priority for support or funding.
- b) Some coed living groups have become more aware of women's concerns. One living group has equal numbers of men and women and they feel equal. Another coed dorm is not sensitive to women student, but the women in one of the sections have been able to sensitize men to their concerns, to encourage fairness to all members of the floor, and to not settle for simple majority rule but opt for a concensus form of making decisions.
- c) We face stereotypes of women and don't get enough respect. For example, the crew team is in transition from an all male team to a coed team. The men say we're not "real women" unless we flirt and yet we're pressured to act like men. Then we're called the "varsity crew bitches."

QUESTIONS 4: "What has been helpful to you as a female student at MIT?"

- a) Friends (especially female friends)
- b) Support groups (e.g. the Women Students' Cooperative Board)
- c) Small communities (e.g. ESG) where you can combine the personal and the academic, and where issues like sex roles get discussed and supported.
- d) Women's Studies courses.
- e) Retreats for women students (e.g. minority women's Talbot House trip).
- f) Advisors (especially women) who were there to listen when you needed to talk. Graduate women TA's -- they give 150% of themselves.
- g) Department open house for graduate and undergraduate women.

QUESTION 5: "What could be improved at MIT to make life better for you as a female student?"

- a) More tenured women faculty (and more chances to interact with them).
- b) More women students.
- c) More support groups for women students (e.g. Cooperative Board).
- d) More small supportive communities (e.g. ESG).
- e) More opportunity for integration of relationships with work.
- f) More single sex housing for women.
- g) More open houses and lunches for women faculty/post docs and women students in departments.
- h) Better safety on campus.
- i) Have a separate men's crew, women's crew so the default isn't male.
- j) Have more of a community feeling--think about and care about each other.

-Minutes submitted by
Lynn Roberson and Holly Sweet



DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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Studies
About
Women at
MIT

MARY P. ROWE
Special Assistant to the President

MAY 21 1987

Ref. to _____
File _____

Room 13-3005
(617)253-6864

May 18, 1987

TO: Professor Margery Resnick and Dr. Mary P. Rowe

FROM: M.S. Dresselhaus

SUBJECT: MIT Undergraduate Performance

Please go over the following text, correct it and get it into *The Tech* or other suitable media. My travel schedule is exceptionally heavy right now so I need your help to go forward. I did a lot of data analysis and we could show more data than is in the table, like a plot of G_W/G_T vs year or % women. But I do think that what I have here is about the right amount of detail for a letter to *The Tech*.

Motivated by recent letters to *The Tech*, I have with the gracious help of the registrar carried out a survey of the performance of all MIT undergraduates over the past decade, a decade that has seen the fraction of women students go from 16% to over 25%. The indicators used were the grade point averages of women G_W as compared to that of all students G_T . I organized the data by school and examined the ratio (G_W/G_T) as a function of the percentage of women students. No grades are available for the freshman year. The results of the analysis for all undergraduates receiving grades show that women are doing as well as or better than average in every school, except for the undesignated sophomores. An average of G_W/G_T over this ten year period by schools is given in the following Table:

School	(G _W /G _T)
Architecture	1.004
Engineering	1.007
Science	.9995
Sloan	1.026
Humanities	1.002
Undesignated	.980
All Schools	1.007

where we note that $(G_W/G_T) = 1.00$ indicates "class average". As the number of women increased from below 20% to above 20%, their performance relative to class average did not decrease, but in fact increased from 1.005 to 1.009. The data further indicate that as the women achieve a "critical mass" (which is $\approx 15\%$ which translates to more than 1 woman student per class on the average), the ratio G_W/G_T tends to approach unity. Up until 1986, "critical mass" for women students was not achieved in every academic department at MIT. With the higher women enrollment figures of the class of '90, it should be possible to achieve "critical mass" in all the academic departments at MIT, thereby providing a more equitable educational experience for women and men undergraduates.

Sincerely yours,

M. S. Dresselhaus

Mildred S. Dresselhaus
 Institute Professor of
 Electrical Engineering and Physics

MSD/pmc

Schools	Ratio $\frac{W}{Tot}$ % W Humanities	Ratio $\frac{W}{Tot}$ % W W Sloan	Ratio $\frac{W}{Tot}$ % W All schools
771	.989 18.1	1.062 17.6	1.015 16.1
772	1.014 19.5	1.012 20.4	1.002 16.0
781	.998 19.0	1.064 26.4	1.010 16.1
782	.938 19.3	1.043 22.6	.998 16.5
791	.977 12.7	1.057 28.2	1.000 15.6
792	.964 14.0	1.061 25.2	.998 15.5
801	1.029 17.1	1.035 29.6	1.015 17.3
802	1.007 20.6	.992 30.7	.998 17.3
811	1.027 17.6	1.039 22.7	1.008 17.7
812	1.010 20.2	.997 21.1	1.005 17.4
821	1.007 18.4	1.018 30.7	1.015 20.1
822	.931 20.9	.987 26.5	.990 20.1
831	1.010 26.0	1.034 28.2	1.015 21.7
832	1.007 25.5	1.071 28.8	1.010 21.9
841	1.005 27.1	1.026 30.8	1.023 22.5
842	1.007 26.9	1.003 31.3	1.000 22.9
851	1.044 39.0	1.044 21.3	1.015 23.8
852	1.034 39.1	1.040 21.6	1.007 23.4
861	1.010 40.0	.957 34.6	1.010 25.1
862	1.026 37.7	.972 35.7	1.007 25.4
\bar{A}	1.002	1.026	1.007

Schools	Ratio $\frac{W}{T}$. % women		Ratio $\frac{W}{T}$ %		Ratio $\frac{W}{T}$ %	
	Architecture		Engineering		Science	
771	1.00	25.9	1.015	11.9	1.005	21.1
772	1.016	27.1	1.007	11.6	.979	21.1
781	.991	29.5	1.008	12.2	.990	20.9
782	1.022	29.9	.998	12.6	.983	22.2
791	1.022 1.022	27.4 27.4	1.003	11.8	.981	21.8
792	.995	30.1	1.012	12.0	.981	20.8
801	.966	31.0	1.025	14.5	.993	21.8
802	.981	29.1	.998	14.5	.988	22.0
811	.981	34.0	1.003	15.7	1.025	20.4
812	.971	38.0	1.003	15.3	1.007	20.6
821	.990	35.8	1.010	18.8	1.020	21.5
822	.990	36.7	.990	18.6	1.002	22.0
831	1.000	36.7	1.015	19.4	1.002	25.5
832	1.028	37.8	1.005	19.5	1.000	26.6
841	1.051	43.4	1.026	19.3	1.002	29.3
842	1.018	40.8	.993	20.0	1.005	29.5
851	1.017	39.7	1.008	20.4	1.014	31.5
852	1.014	39.2	.995	19.9	1.012	31.1
861	1.005	39.5%	1.013	21.0	.998	30.9
862	1.016	42.0	1.010	21.6	1.002	30.8
\bar{A}	1.004		1.007		.9995	

	Ratio W/T		Ratio %		Ratio %		Ratio %	
	Undersaturated		6.1		6.3		8	
771	.990	20.7	1.015	5.2%	1.008	4.4	1.033	7.1
772	1.030	24.3	1.012	4.1	1.084	5.9	.998	8.7
781	1.092	20.0	.945	4.5	.754	8.5	.953	8.9
782	1.073	14.5	1.000	4.8	.899	8.2	1.044	9.3
791	.932	17.3	.982	5.5	.985	7.7	.983	9.3
792	.816	20.0	.973	5.9	<u>.899</u>	8.0	1.017	8.3
801	1.032	21.7	.997	8.9	1.023	10.1	.978	8.9
802	1.104	21.9	<u>.959</u>	8.5	1.012	9.7	.977	8.3
811	.962	25.8	.974	10.1	1.005	11.1	.946	7.9
812	.918	17.1	.972	9.5	1.015	11.7	.944	7.8
821	1.051	21.4	.974	11.4	1.018	15.6	.966	6.7
822	.997	34.8	.965	10.9	1.010	17.0	<u>.935</u>	6.7
831	1.086	30.8	1.008	13.3	1.013	14.7	.981	11.4
832	.984	31.0	1.008	12.5	1.015	15.9	1.002	12.4
841	.961	30.0	.992	11.9	1.005	15.5	1.034	16.9
842	.830	34.6	1.000	11.4	.967	15.7	1.037	17.3
851	.818	23.0	.970	13.6	.982	14.4	1.038	19.6
852	1.124	20.0	.983	12.4	.977	15.8	1.047	20.3
861	.959	47.5	.960	14.0	1.010	16.0	1.029	16.5
862	.840	33.3	.985	14.1	1.010	16.5	1.078	16.0
<u>A</u>	.980		.984		.995		1.001	
			critical mass	.983	1.004		1.031	

A SUMMARY OF PERFORMANCE INDICATORS FOR WOMEN STUDENTS AT MIT

1982
Study for
Dresselhaus
com

File
women
students at
MIT

1. Grading at MIT, as indicated by the past 5 years of GPA data, shows no correlation to sex of student. Men and women are indistinguishable by grades across all departments averaged over this period.
2. There is no significant difference in the number of women vs. men on academic warning.
3. A look at statistics for the fall of 1981 for Tau Beta Pi (the engineering honorary society) show that out of 277 women enrolled in engineering, 32 were invited to join Tau Beta Pi or 11.5%. Out of 1332 men enrolled in engineering 197 or 14.8% were invited to join.
4. The figures clearly demonstrate that women are elected to Phi Beta Kappa in a percentage far greater than their distribution in the population would lead us to expect. For example in 1981, 10 of the 38 members of Phi Beta Kappa at MIT or 26% were women while women represent 19% of the group.
5. In the last 5 years there were 82 cases heard by the Committee on Discipline. Of those, 3 were women. *Express as %?*
6. Women students participate in a wide range of Institute committees. A look at the 1981-82 academic year shows that there are a total of 63 Institute committees. Forty committees have student members. There are 109 male students and 55 female students on Institute committees.
7. There is a wide range of participation of women students in student activities across the board. From a look at the 1981-82 directory listing student activities, women chair about 20% of the student organizations.
8. Women received a substantial share of awards in June 1981. During 1981 women made up 19% of the undergraduate student body.
Women received: 15% of the academic awards
 31% of the extracurricular awards
 21% of the athletic awards
 20% of the military awards

SUMMARY: There does not seem to be any significant difference in academic performance of men and women students at MIT. Women participate fully in extracurricular activities and receive a substantial share of awards each year.