

LEHIGH AND THE PROBLEM OF COEDUCATION:

A STUDY IN DESIRABILITY

AND FEASIBILITY

TABLE OF CONTENTS

CHAPTER	PAGE
I SUMMARY OF THE RECOMMENDATIONS	1
II THE DESIRABILITY ISSUE	6
A. Personal Preferences	6
B. Recent Admissions Experience	12
C. Results of the Questionnaire Involving Students Accepted at Lehigh Who Decided to go Elsewhere	14
D. Present Attitudes of Secondary School Graduates Toward Single-Sex Colleges	16
E. National Male Population Trends	21
F. Public-Supported Academic Institutions	24
Summary of Chapter II Sections A-F	24
Effects on the Quality of Academic and Social Life at Lehigh	
G. Number Estimate	26
H. Female Curriculum Distribution	28
I. Academic Performance and Attrition Rates of Women College Students	30
J. Effects on Classroom and Social Life	31
K. Atmosphere of Classes and Quality of Discussions	37
L. Housing	39
Summary of Chapter II Sections G-L	43
III THE EDUCATION OF WOMEN AND LEHIGH'S POTENTIAL ROLE	45
IV THE FORMS OF COEDUCATION: PROBLEMS OF RATIO AND SIZE ...	50
A. General Conclusions	55
B. Recommendations	57
C. The Question of Ratios	58
D. The Question of Size	59

CHAPTER	PAGE
V THE FEASIBILITY ISSUE	61
A. General Comments	64
B. Summary of Estimated Operational Costs	65
C. Summary of Estimated Capital Costs	71
D. Additional Income	74
VI CONCLUSIONS	75

LIST OF TABLES

TABLE		PAGE
2- I	Admission Statistics	13
2- II	Admission Statistics	13
2-III	First-Time Male Students Entering Four-Year Degree Granting Institutions	21
2- IV	All-Male Colleges Considering Coeducation	22
3- I	The Occupational Distribution of College Educated Women Employed in White Collar Occupations from 1948-1966	46
3- II	Women Scientists in the United States by Selected Major Fields 1960-1966	46
5- I	Summary of Estimated Feasibility of Adding 400 and 800 Women - Operational and Capital Costs.....	63
5- II	Operational Summary	66
5-III	Faculty Salary Estimates.....	67
5- IV	Academic Administration and Student Service Personnel Costs	69
5- V	New Capital Costs	71

CHAPTER I

Summary of the Recommendation

Several months ago the Joint Commission on University Life charged us with the responsibility of examining the desirability and feasibility of Lehigh becoming a coeducational institution at the undergraduate level. We have done our best to produce a thorough, fair and clear examination of the question and we have come to the conclusion that the answer should be in the affirmative.

In the report which follows we provide the detailed evidence which led us to this conclusion. But before we do so we wish to make clear the assumptions on which the Committee acted to fulfill its mandate.

In the first place, we conceived our role, not as an arbiter among conflicting interests, but as an independent body whose duty it was to render as disinterested a judgment as it was possible to achieve.

The second assumption upon which we acted was that the principal criterion which should be applied to the question was this: "Would the admission of women strengthen Lehigh as a center of inquiry and teaching or would it not? If it would, could it be done at an acceptable cost?"

Specifically we recommend that:

- (1) Lehigh admit a class of 100 women in the fall of 1971 and that, if conditions permit,
- (2) This number be increased to approximately 800 or roughly 20% of the student body.
- (3) If circumstances do not permit implementation of recommendations (1) and (2), the University should, as a transitional step, admit qualified female students from the local area.

The Committee makes this recommendation knowing that it would have only a minimal effect on the academic and social life of Lehigh and should not be viewed as a fully adequate alternative.

- (4) The President appoint a Committee on the Education of Women at Lehigh composed of appropriate members of the faculty, students and Administration. This body would have the task of recommending required changes in curriculum and social life, and assessing Lehigh's experience with coeducation, including the proposed expansion from 400 to 800 women.

The Committee believes that this is a much more important issue for Lehigh than may appear on the surface. We do not mean to imply that Lehigh's survival is at stake because in our judgment that would be an exaggeration of the true situation. We do believe, however, that if Lehigh fails to act affirmatively on this question that her overall competitive position will be made much more difficult in the short run. The long run picture could easily be more ominous. All the signs point to a fast-moving national environment with coeducation as the norm. If Lehigh attempts to go counter to this trend the danger exists that she could plan or build herself into increasing obsolescence.

There are several reasons which lead us to these conclusions:

- (1) An overwhelming majority of the high school honor students and of the existing Lehigh student body strongly favor a coeducational experience. Only a tiny minority of male high school honor students (3%) and current Lehigh undergraduates (16%) who responded preferred a single-sex institution.
- (2) Lehigh's competitors for the pool of able young men whose

can afford to send them to Lehigh have either gone or are likely to go coed. This pool of available students is very much smaller than is usually believed and this fact, when combined with point one, seems likely to lead to a serious decline in our competitive position if action is not taken.

- (3) A very large proportion (71%) of the Lehigh student body has found their social life at the University to range from merely "tolerable" to "dissatisfactory." The Committee believes that the admission of a substantial number of women would sharply improve this situation.
- (4) Results from faculty and student questionnaires lead us to believe that a decision to become coeducational would bring with it substantial academic gains in the shape of an improved quality of discussion, an increased amount of student participation and improvement in the atmosphere of classes.
- (5) The increasing part played by women in our society and the growing tendency to view education by sex as discriminatory are weighty factors indicating that Lehigh should assume a role in the education of women.
- (6) We have investigated carefully the likely costs of coeducation. Our conclusions are as follows:
 - (a) At present levels of expense tuition and fees, the additional income attributed to the admission of 400 and 800 women exceeds the corresponding operational expenses by \$250,000 and \$629,000 respectively.

These figures will no doubt come as a pleasant surprise to those who expected a huge increase in annual operating expenses if a decision were made to go coed. The reason is very simple:

in order to provide a well-rounded education for Lehigh's scientists and engineers, and to do graduate work, facilities have been developed which can handle an increase in the number of students without large additions to the present staff.

(b) The capital costs will be as follows:

1. The capital costs for the 400 model at present would be at least \$5,132,050.
2. The capital costs for the 800 model at present prices would be at least \$9,985,800.

It is important to recognize that the bulk of this cost--over 86% in the 400 model and over 88% in the 800 model would be self-liquidating. The out-of-pocket capital expense to the University would be about \$732,000 in the 400 model and \$1,116,000 in the 800 model, and this must be weighed against the sharp gain to Lehigh in operating costs. (a)

In an excellent University with a high standard of scholarship the sense of present achievements and pride in past traditions are likely to combine to produce an attitude in favor of keeping things as they are or of limiting risks to well explored and clearly defined paths. The operating code of the University tends to become a type of conventional wisdom, which, upon close examination, is revealed as a mere crystallization of past modes of action. The end result is a general attitude of comfortable self-satisfaction which can lead to dullness and stagnation.

We do not mean to suggest that Lehigh should stand accused of such attitudes. On the contrary, many dynamic new beginnings have been made which point in the opposite direction. But the danger does exist and

must be guarded against, particularly on a decision such as is posed by the present choice of alternatives. This is so because the issue of coeducation is not a debate about details but involves a new departure which will affect in a fundamental manner the daily life of the institution.

It is the judgment of the Committee, after a careful examination of the facts and a conscientious attempt to weigh the alternatives that Lehigh would be well advised to accept the challenge of going coeducational at the undergraduate level. We do so for the reasons stated above and also because we believe that vigor and courage are second only to reason in the successful growth of the University community. In the present case, this involves a readiness to accept responsibility in the coeducational experiment with some risk of mistakes as part of the continuing effort to adapt a fine institution to new purposes.

CHAPTER II

The Desirability Issue

A. PERSONAL PREFERENCES

a. Faculty and Students

Many fragmented polls concerning coeducation have been conducted at Lehigh in recent years. The Committee decided to determine not only the personal preferences of current Lehigh students toward coeducation but also the intensity of those preferences. More than half of all current Lehigh students returned their questionnaires and results are impressively in favor of coeducation. When asked the direct question below only 16% replied negatively.

(In percentages)
(N=1516)

Do you favor undergraduate education for women at Lehigh?

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Yes	77	84	75	76	71
No	16	10	20	17	19
Indifferent	6	5	5	7	8
No answer	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{2}{100}$

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Yes	77	86	72	76	72
No	16	9	20	17	21
Indifferent	6	4	7	7	7
No answer	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{0}{100}$

We also asked the faculty several questions pertinent to their preference concerning coeducation at Lehigh. Since it is the faculty's profession to teach we asked the question in terms of teaching.

(In percentages)

(N=291)

Do you think that for you, personally, teaching coeducational, as opposed to all-male, classes at Lehigh would be

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
More satisfactory	40	57	72	13	18	25	14
Less satisfactory	7	5	4	7	0	0	29
Not appreciably different	47	36	24	76	82	46	36
No answer	5	2	0	2	0	29	21
Not relevant	<u>1</u> 100	<u>0</u> 100	<u>0</u> 100	<u>2</u> 100	<u>0</u> 100	<u>0</u> 100	<u>0</u> 100

Only 7% of the faculty believed that teaching coed classes would be less satisfactory whereas 40% believed it would be more satisfactory. Most of the remaining faculty believed coeds in class would make no appreciable difference in their personal teaching satisfaction.

The following responses to questions posed to the faculty concerning their sons and daughters offer convincing proof, that, other things being equal, a majority of faculty prefer that their children attend coed as opposed to single-sex colleges.

Other things being equal, would you prefer that your (son and daughter) attend

<u>Total percentages</u>	<u>Son</u>	<u>Daughter</u>
A coed college	73	78
A single-sex college	7	7

(cont'd.)

(cont'd.)

	<u>Son</u>	<u>Daughter</u>
No college	0	0
Undecided	14	10
Their decision	4	2
No answer	$\frac{2}{100}$	$\frac{3}{100}$

A question still remained, however, as to the strength of both student and faculty convictions about coeducation at Lehigh. At what cost were Lehigh students and faculty willing to admit women? We confronted both groups with the following series of questions.

(In percentages)
 (Student N=1516)
 (Faculty N=291)

If sufficient additional funds could not be found to cover any new expenditures related to coeducation, do you think that admitting women to the University is of such importance that it would justify:

a.) a tuition increase

	<u>Students Total</u>	<u>Faculty Total</u>
Yes	34	35
No	64	60
No answer	$\frac{2}{100}$	$\frac{5}{100}$

b.) the sharing with women of existing scholarships aid for incoming classes

	<u>Students Total</u>	<u>Faculty Total</u>
Yes	80	81
No	19	14
No answer	$\frac{1}{100}$	$\frac{5}{100}$

c.) a reduction of the number of entering male undergraduates

	<u>Students Total</u>	<u>Faculty Total</u>
Yes	70	60
No	29	37
No answer	$\frac{1}{100}$	$\frac{3}{100}$

d.) a limitation on the proposed expansion of the graduate school

	<u>Students Total</u>	<u>Faculty Total</u>
Yes	49	32
No	49	63
No answer	$\frac{2}{100}$	$\frac{5}{100}$

e.) a possible increase in section and class size

	<u>Students Total</u>	<u>Faculty Total</u>
Yes	61	55
No	37	41
No answer	$\frac{2}{100}$	$\frac{4}{100}$

f.) impeding the flexibility of course assignments and your opportunity to teach specialized courses

	<u>Faculty Total</u>
Yes	36
No	52
No answer	$\frac{12}{100}$

Our preliminary studies indicate that admitting a substantial number of women as undergraduates to Lehigh would lead to major changes in the University. These changes probably would not be restricted to the social and cultural life, but would or could be in: structure of the curriculum;

modification of admission entrance unit requirements (e.g., less math); teaching methods; time of classes; size and composition of the faculty; University-town, and University-alumni relations; etc. Without being able to forecast, with precision, the extent and scope of such changes, would you

	<u>Students Total</u>	<u>Faculty Total</u>
Welcome such changes if they are necessary to bring women into the student body	43	43
Deplore such changes and consider them a major consideration against admitting women	12	7
Consider such changes undesirable but be quite prepared to adjust to them if they are necessary to bring women into the student body	19	11
Venture no opinion on such uncertain and indefinite prospects	23	34
No answer	3	5
Not relevant	<u>0</u> 100	<u>0</u> 100

The results just described indicate that a substantial majority of current Lehigh undergraduates and faculty are in favor of coeducation even if it meant: sharing scholarship aid with women, reducing the number of male undergraduates, and increasing section and class size. Neither students nor faculty were willing to concede a tuition increase or a limitation on the proposed graduate expansion program in favor of admitting women. It is also true that a majority of the faculty were not in favor of admitting women if this action meant impeding the flexibility of their course assignments and their opportunity to teach specialized courses. But, with the exception of the changes just mentioned, the majority of both students and faculty either welcome or are willing to adjust to comprehensive changes

regarding all phases of Lehigh life, if such changes are necessary to admit women.

Another very important segment of the Lehigh Community, the alumni received a questionnaire at the beginning of September. The alumni were polled only after we had obtained some estimates of operating costs and capital costs in order that this constituency would have as much information as possible as to the magnitude of the amounts involved.

The response was excellent, totalling 39.1% of the alumni body, a figure well above similar returns at other institutions. The results are as follows:

	(In percentages)					
	<u>Before 1930</u>	<u>1930-39</u>	<u>1940-49</u>	<u>1950-59</u>	<u>1960-68</u>	<u>Total</u>
Yes	33.413	48.396	48.297	47.758	62.600	50.652
No	57.932	43.731	43.801	44.607	32.959	42.434
Undecided or No Answer	8.653	7.871	7.901	7.634	4.439	6.912
	100.	100.	100.	100.	100.	100.
Total Returns	832	1,029	1,468	2,253	2,230	7,812

All late returns will be tabulated and the results forwarded to the Board of Trustees.

Finally, a set of responses from a group outside the University, high school guidance counsellors, was recorded.

(In percentages)
(N=2332)

Do you, personally, favor the idea of coeducation at Lehigh?

a. Yes	60
b. No	11
c. Uncertain	26
No answer	<u>3</u>
Total	100

B. RECENT ADMISSIONS EXPERIENCE

In the past five years the academic quality of entering freshmen classes has remained relatively stable as reflected in the following tables. In referring to the question of coeducation, Director of Admission, S. H. Missimer states:

"This office does not feel that Lehigh's recent admission experience has been such that it is now a "must" to admit women or else settle for smaller and weaker freshman classes. Some staff members feel that an argument could be made for more financial aid and a larger budget for recruiting purposes, (we are also near the bottom in this regard) before taking the coeducational step.

The inclusion of women in upcoming freshman classes, however, certainly would not handicap Lehigh in appealing to prospective students. And as the results of many surveys (our own included) have shown, as a coeducational University, eventually, we probably would appeal to a wider range of applicants.

In particular, if Lehigh desires to increase the size of the freshman class and/or improve the quality considerably one major option would be to admit women. The supply of males with 600+ SAT Verbal scores and enough financial backing to afford a high cost (\$3500 and up) education simply is not large enough for all the competing colleges to raise steadily the objective academic qualifications of their freshman classes."

Table 2-I

Year	Number Applicants	No. offered Admission	% of applicants offered Admission	Acceptance Ratio
1969	3389	2125	62.702	40.705
1968	3425	2008	58.627	40.388
1967	3190	1891	59.278	42.728
1966	3296	1815	55.066	44.352
1965	3382	1782	52.690	45.454
1964	2837	1763	62.143	45.774

Table 2-II

Year	Number Enrolled	Mean SAT Verbal	Mean SAT Math	% in Top-fifth
1969	865	590	681	78
1968	811	598	677	76
1967	808	595	676	76
1966	805	603	676	76
1965	810	603	680	75
1964	807	585	673	66

Despite the fact that the academic quality of entering freshmen classes has remained relatively stable for the last five years, it is important to note that Lehigh like most other quality institutions has had to offer admission to 10% more applicants in 1969 than in 1965 to maintain the same desired size. Also, 5% more students offered admission at Lehigh decided to go elsewhere in 1969 as opposed to 1965. The question of students who were accepted at Lehigh but who decided to go elsewhere was another point of inquiry.

C. RESULTS OF THE QUESTIONNAIRE INVOLVING STUDENTS ACCEPTED AT LEHIGH WHO DECIDED TO GO ELSEWHERE

In an effort to determine views of high school students who were accepted at Lehigh but decided to go elsewhere, the Coed Committee sent questionnaires to all 1250 students offered admission in 1969 who chose to go elsewhere and received 674 responses. There were actually two questionnaires involved in the process. One, sent to half of the students, simply asked the students to list, in order of importance, the three most important reasons which influenced their decision not to attend Lehigh. A second questionnaire sent to the other half of the students included the same question but added an additional query, "If Lehigh were coeducational, would this factor have been important enough for you to have chosen to attend Lehigh?"

Subsequent results revealed that both questionnaires were reliable. That is, the specific mentioning of coeducation in the second question of the second questionnaire did not influence students who responded to that questionnaire to use the coeducation factor significantly more than students who answered just the first question.

The results of the first, second and third reasons are listed in Appendix C. The presentation was made in this manner to place the coeducation factor in its proper perspective and, thus, was not an attempt to do a thorough admission study by listing every factor. Only 6% of all the students responding reported that the most important reason why they chose another college was primarily because Lehigh was an all-male institution. This percentage was surpassed in importance by those students who cited financial, academic program and location factors as their most important reasons for not choosing Lehigh. Results concerning the second most impor-

tant reason why students did not choose Lehigh again place coeducation fourth in importance behind the same three factors but in this instance over 11% of the students responded that the absence of women at Lehigh was the second most important reason in their decision to go elsewhere. Responses concerning the third reason why students decided to go elsewhere were different. In this instance coeducation was second only to the financial factor. Here, almost 9% of all the students who responded stated that Lehigh's all-male characteristic was the third most important reason why they decided to go elsewhere. The overall results revealed that 26.12% of the 674 students who responded listed Lehigh's all-male characteristic as one of the three most important reasons why they decided to go elsewhere.

Realizing that listing factors does not aid in determining the intensity attached to those factors, the committee then focused its attention on the second question, "If Lehigh were coeducational would this factor have been important enough for you to have chosen to attend Lehigh?" It is important to note that 14.89% of all students responded "Yes" to that key question and that 36% of them applied to the College of Arts and Science, 35% to the College of Engineering and 29% to the College of Business and Economics. It is also important to note that 7% of these students would rank very high on the Lehigh scale.

D. PRESENT ATTITUDES OF SECONDARY SCHOOL GRADUATES TOWARD SINGLE-SEX COLLEGES

One of the many aims of the study was to elicit responses which would aid the committee in determining the effect a coeducational Lehigh might have on the quality and number of male applications to the University. The committee decided that the most adequate procedure for acquiring information on this critical question was to query the primary source; i.e., male high school honor students who were considering colleges.

On April 1, 1969, 825 high school junior male and female honor students representing 32 high schools in District 9, the Eastern Pennsylvania section of the National Honorary Society, toured Lehigh University. On the same day the Coed Committee invited the students' advisors to a meeting at which time the advisors' aid in administering questionnaires to the students was solicited. The advisors issued the questionnaires to their honor student advisees approximately one week after the students returned to their respective high schools. The committee also decided to send out 500 more questionnaires to high school junior and senior male and female honor students in 13 other schools which were deemed representative by the Admission Office. The information presented in this section of the report will deal only with responses from male honor students.

All male honor students were asked if they would definitely apply, be undecided about applying, or definitely not apply to Lehigh in its present all-male state. They were then asked the same questions pertaining to a coeducational Lehigh. The results are illustrated below.

(In percentages)
(N=260)

If Lehigh University would remain all-male, do you think that you would

	Percentage
a. Definitely apply for admission	28
b. Undecided	49
c. Definitely not consider applying for admission	$\frac{23}{100}$

If Lehigh University were to become coeducational, and you were still considering where to apply, do you think that you would

	Percentage
a. Definitely apply for admission	32
b. Undecided	56
c. Definitely not consider applying for admission	$\frac{12}{100}$

Comparing both results an increase of 4% can be seen in the "definitely apply" column if Lehigh were to become a coeducational institution as well as an increase of 7% in the undecided column. It also seems important to note 11% fewer students stated that they would definitely not consider applying if Lehigh admitted women.

The results revealed in the study pertained specifically to Lehigh. The committee decided to use this approach rather than accept Princeton's excellent but "blind" study pertaining to college preferences of "top" secondary school students. The Princeton study (Princeton Alumni Weekly, Vol. 69, p. 8) did not specifically mention any college but the results seem appropriate as a secondary source of information.

(In percentages)
(N=4680)

"Does the fact that a college has both men and women students as compared with a college having only students of your own sex:"

	Male		Female	
	Rank in class Upper 2/5	Lower 2/5	Rank in class Upper 2/5	Lower 2/5
Increase its attractiveness	81	74	79	67
Make no difference	15	21	15	26
Decrease its attractiveness	3	4	5	5
No opinion and other	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{2}{100}$

As noted in the Princeton Report, "the results...were impressive evidence that, were Princeton to admit women students, it would increase its attractiveness to a very large portion of the high-talent college applicant "pool" and would decrease its attractiveness to only a very few. Moreover, the presence of both sexes appears to be especially important to the most able students of this already select group. This committee believes that the Princeton study is a valid and important secondary source of information.

The Committee decided to query not only the students themselves but also the school officials most intimately associated with the student's college goals, their guidance counsellors. The counsellors, who personally favored coeducation at Lehigh by a substantial majority also responded in the majority that coeducation would make no appreciable difference in the number of applications Lehigh would receive. It is important to note, however, that 19% or 442 counsellors believed that the University would receive more highly qualified applicants if women were admitted.

(In percentages)
(N=2332)

If Lehigh University were to become coeducational, what effect do you think this would have on the number of applications we would receive from your better qualified male students?

	Percentage
a. More	19
b. Fewer	1
c. No appreciable difference	78
.. No answer	$\frac{2}{100}$

In an effort to pursue other sources of information the Committee asked current undergraduates and faculty their opinion on the question of a coed Lehigh's attractiveness to well-qualified male applicants. As shown in the results below substantial majorities of both students and faculty believe that coeducation would enhance Lehigh's ability to attract well-qualified male applicants.

(In percentages)
(N=1516)

Do you think having women in the undergraduate college would have a positive or negative effect on Lehigh's ability to attract well-qualified male applicants?

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Positive	75	82	73	73	70
Negative	5	3	5	4	7
Little or no effect	19	15	21	22	22
No answer	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$

(In percentages)
(N=291)

Do you believe that coeducation would enhance the attractiveness of Lehigh for the best-qualified students in high schools and private secondary schools, thereby helping us get some of the best young men, who at present do not apply or decline after being accepted for admission?

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Yes	63	72	84	49	55	67	28
No	11	7	0	16	27	8	43
Not concerned. We attract and will continue to attract enough good stu- dents if we remain all- male.	20	16	16	25	9	25	29
In Arts but not in Engr and Business	1	1	0	2	0	0	0
No answer	<u>5</u> 100	<u>4</u> 100	<u>0</u> 100	<u>8</u> 100	<u>9</u> 100	<u>0</u> 100	<u>0</u> 100

Finally, we asked our current undergraduates whether or not they would advise an academically qualified younger brother or close friend to accept admission to an all-male Lehigh. A minority of 32% responded in a positive manner.

(In percentages)
(N=1516)

If Lehigh were to remain all-male, would you advise an academically qualified younger brother or close friend to accept admission?

	<u>Total</u>	<u>1972</u>	<u>CLASS 1971</u>	<u>1970</u>	<u>1969</u>
Yes	32	27	34	34	35
No--if he were accepted at an academically equal but coeducational institution	48	56	46	44	43
No--if he were accepted at an academically weaker but coeducational institution	11	12	12	12	8
No--if he were accepted at an academically equal but all-male institution	2	2	2	2	3
No answer	<u>7</u> 100	<u>3</u> 100	<u>6</u> 100	<u>8</u> 100	<u>11</u> 100

E. NATIONAL MALE POPULATION TRENDS AND THE "POOL" OF QUALIFIED MALE APPLICANTS

The United States Office of Education estimates concerning the number of first-time male students who enter four-year colleges and universities is herein presented since it appears to be generally appropriate to the Lehigh Admissions picture. A "leveling off" effect is projected in the following table.

Table 2-III

First-time Male Students
Entering Four-Year Degree-Granting Institutions

YEAR	NUMBER	% INCREASE
1963	441,220	- 0.2
1964	508,117	+15.2
1965	587,789	+15.7
1966	589,000	+ 0.2
1967	590,000	+ 0.2
1968	601,000	+ 1.9
1969	619,000	+ 3.0
1970	640,000	+ 3.4
1971	659,000	+ 3.0
1972	676,000	+ 2.7
1973	689,000	+ 1.9
1974	700,000	+ 1.6

The leveling off effect illustrated in the preceding table is more general than is the projection offered by Humphrey Doermann, author of "The Market for College Education." Doermann, in 1965 stated that there were no more than 14,000 male secondary school seniors in the nation able

to score 600 or better on the S.A.T. (Verbal) test whose families' total income was \$16,000 or more. Our Committee has independently studied the 14,000 figure and concludes that it should be increased to the 35,000--40,000 area. Some idea of the size of Lehigh's share of this national pool must consider many variables such as a Northeastern portion from which the University mainly draws students and also our previous figures which show that other things being equal only 3% of the top male students prefer single-sex institutions while 16% are indifferent.

Some of the Northeastern U. S. colleges which have gone or are currently going coed are listed below. In general most of these colleges cite the main reasons for their consideration of coeducation as the belief that it is educationally advantageous to have women on campus and that the presence of qualified women would increase their competitive position and the quality of their student body.

Table 2-IV
All-Male Colleges Considering Coeducation

<u>All-Male Colleges</u>	<u>Beginning Year</u>	<u>Present # Women</u>	<u>Planned # Women</u>
Kenyon, Gambier, Ohio	1969	0	700
F & M, Lancaster, Penna.	1970	0	760
Princeton, Princeton, N. J.	1970	0	1000
Colgate, Hamilton, N. Y.	?	0	600
Lafayette, Easton, Penna.	?	0	600
<u>Hamilton-Kirkland,</u> Clinton, N. Y.	1968	175	600
Union, Schenectady, N. Y.	1970	0	400?
Wesleyan, Middletown, Conn.	1968	100	850
Yale, New Haven, Conn.	1970	0	1500

<u>All-Male Colleges</u>	<u>Beginning Year</u>	<u>Present # Women</u>	<u>Planned # Women</u>
Williams, Williamstown, Massachusetts	1970	0	600?
SUB-TOTAL			7610?
<u>New Coed Colleges</u>			
Hampshire, Amherst, Mass.	1970	0	720?
Eisenhower, Seneca Falls, New York	1968	100	700?
TOTAL		275	9030?

F. PUBLIC-SUPPORTED ACADEMIC INSTITUTIONS

Finally, Lehigh is faced with increased competition from tax-supported academic institutions in quality, quantity and price. The quality and number of public-supported colleges and universities are increasing very rapidly. It is no longer true that an excellent education is obtainable only in a few prestigious private colleges and universities. Qualified students have an increasing number of attractive options especially since the gap between total expenses at Lehigh and those of tax-supported colleges and universities is growing and may continue to grow.

SUMMARY

Chapter II Sections A-F

1. Lehigh's recent admission experience is good and in the past five years the number of entering freshmen has remained relatively stable but to maintain this stability Lehigh, like most other quality institutions, has had to offer acceptance to 10% more applicants in 1969 than she did in 1965.
2. Substantial majorities of current Lehigh students and faculty believe that coeducation would enhance the University's attractiveness to well-qualified male applicants. Only 32% of our current undergraduates who responded would recommend an all-male Lehigh to an academically qualified brother or friend.
3. Fifteen per cent of all students who were accepted at Lehigh and decided to go elsewhere would have chosen the University if it were coed. This group would have been fairly evenly distributed among our three colleges and half of this group would have ranked high in terms of our admission criteria.

4. More male honor students would "definitely apply" to Lehigh if it were to become a coeducational University. Also, fewer top students would "definitely not apply." In general a great majority of the top students prefer coed colleges, other things being equal.
5. Every one of Lehigh' top competitors has gone or is going coeducational and thereby increasing their attractiveness to that limited number of qualified male applicants able to afford quality academic institutions.
6. In its quest for the qualified male applicant Lehigh is also faced with ever-increasing competition in the quality, quantity and price of tax-supported colleges and universities.

Effects on the Quality
of Academic and Social Life at Lehigh

G. NUMBER ESTIMATE...

Central to the question of whether or not it is educationally advantageous to admit women to Lehigh is the issue of the effect women might have on the intellectual life of the University. One of the first questions the Committee considered was the quality of female students that the University would desire and in what disciplines they would seek to enroll. In an effort to probe these questions the Committee queried approximately 700 female high school honor students most of whom had been on campus. The girls representing 45 high schools were asked:

(In percentages)
(N=430)

If Lehigh University were to become coeducational, and you were still considering where to apply, do you think that you would

	Percentage
a. Definitely apply for admission	21
b. Undecided	62
c. Definitely not consider applying for admission	$\frac{17}{100}$

This information was supplemented by response from questionnaires sent to 3340 high school guidance counsellors on the Admission Office mailing list. The question and responses pertaining to our number estimation follows.

(In percentages)
(N=2332)

If Lehigh University were to become coeducational, do you think that some of your better qualified female students would apply?

	Percentage
Yes	55
No	11
Uncertain	<u>34</u> 100

Based upon the results which show that better than one out of five female honor students who responded on campus would definitely apply and that only 17% of these honor students would definitely not apply, the Committee believes that the University would attract enough qualified female applicants from which it could select a class corresponding to any of the contemplated models.

The guidance counsellor results reinforce our belief that Lehigh would have little difficulty in attracting qualified female applicants. Over 55% of the counsellors thought that the University would receive enough applications from "some" of their better qualified female students while only 11% replied negatively. If one believes, as does the Committee, that the University would also receive applications from qualified daughters of faculty and alumni as well as from qualified female students transferring from coed, single-sex and community colleges, the Committee's optimism appears acceptable.

H. FEMALE CURRICULUM DISTRIBUTION

The Committee was aware of other studies done in conjunction with the female distribution question and their results which usually predicted heavy female emphasis on the humanities and social sciences. Unwilling to accept these results we queried the female honor students mentioned in the previous section and found the following distribution.

Per 100 Girls on a Noncontrolled Distribution

English	10	Biology	15
Business and Economics	8	German	3
Chemistry	4	Engineering	5
Fine Arts	2	Geology	1
Government	2	History	3
International Relations	2	Mathematics	21
Psychology	6	Religion	2
Romance Languages	10	Social Relations	6
Total -- 100			

The curriculum distribution charted above is different than distributions found in most coed colleges. Judging from statements made by high school honor students and counsellors it seems that the attractiveness of the natural sciences is probably mainly due to Lehigh's powerful science oriented image. Also, it appears from comments that the comparatively lower than usual level of interest in the humanities and social science may be due to students' and counsellors' perception of that same image. In the future Lehigh's distribution could possibly become more "normal" if a thorough publicity campaign is initiated. Several disciplines elicited no responses and it is difficult to believe that many students

would not choose these if their availability was made known to them. The Committee also believe that Lehigh will have enough qualified female applicants from which it could control desired distributions based upon initial choices but it should be noted that controlling a distributions difficult since these choices often change after students arrive on campus.

The expected flow of female students into the Colleges of Arts and Science and Business and Economics raises another consideration. Since the University has announced as part of its Master Plan for the next ten years an intent to develop further these two colleges the Committee feels obligated to point out that the inclusion of women on campus would aid in this effort.

One other important item of information quite worthy of University consideration is the estimation that at least 40 of every 100 qualified females interested in Lehigh will express a desire for teaching as their future vocation. This would not change the curriculum major selections since none were interested in an Education major but it will have an effect upon individual course selections. Lehigh's School of Education is predominantly a graduate school with only three courses open to undergraduates.

I. ACADEMIC PERFORMANCE AND ATTRITION RATE OF WOMEN COLLEGE STUDENTS

Believing that Lehigh could attract enough qualified female students for any of our models and having a basic idea of the curriculum distribution the University might expect, the Committee decided to probe the question of the expected academic performance and attrition rates of these female students.

Charles E. Werts, author of one of the most current studies on the academic performance and attrition rates of women in existence, "Sex Differences in College Attendance," states that more women than men receive grades of "A" in secondary school with "A+" to "A-" grades. On the basis of research pertaining to other intellectual variables he states that the average intellectual achievement of women students entering college at the freshman level is generally higher than that of men students but that once in college the academic performance of both sexes is approximately equal.

In reference to attrition rates Werts states that in general women evidence a lower percentage of withdrawals for academic reasons and a higher percentage of withdrawals for non-academic reasons. In assessing the overall attrition rate of men and women for academic and non-academic reasons Werts says that the attrition rate is slightly less for women than for men. The Committee has examined these issues in several academic institutions and agrees with Werts' general conclusions.

J. EFFECTS ON CLASSROOM AND SOCIAL LIFE

Perhaps the most common concern revealed in our review of the literature has been that the presence of women would distract men from their studies. The issue seemed so important that the Committee decided to ask two basic questions: (1) Would the addition of women at Lehigh "replace" existing distractions or "add" to them? (2) What is the comparative content of the distraction?

As to the first question previous campus studies reveal that Lehigh students do spend much time and money traveling to "where the girls are" which is indeed a distracting factor. But would the presence of girls on campus eliminate the traveling distraction? Realizing that the answer would depend upon individual students as well as the number and quality of women on campus the Committee asked the following question:

(In percentages)
(N=1516)

If Lehigh were coeducational, what do you think would be the effect on the amount of time men undergraduates would spend away from campus?

	4:1 Total	7:1 Total	3:1 Total
Most students would spend almost all their weekends here	4	2	22
With that male-female ratio the amount of time male students spend away from campus might be cut in half	59	10	55
There would probably be very little effect	34	82	17
No answer	$\frac{3}{100}$	$\frac{6}{100}$	$\frac{6}{100}$

The percentage of students who state that most male students would spend all or half their time on campus during the weekends rises proportionately with the more favorable ratios. It is apparent that the students are not favorably impressed by token suggestions. It also seems to be a fair conclusion that the presence of women in reasonable numbers would reduce substantially the weekend exodus from the campus.

Indeed, the Committee is persuaded, on the basis of the testimony of other institutions, that coeducation is the only sensible answer to the present unbalanced social life at Lehigh in which long periods of monastic isolation alternate with party weekends consisting of varying degrees of feverish activity.

When asked their opinion about the state of social life at Lehigh, the following answers were recieved:

(In percentages)
(N=1516)

Do you think the social life at Lehigh is

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Very satisfactory	5	2	7	6	7
Satisfactory	21	13	20	26	30
Tolerable	30	32	30	30	28
Dissatisfactory	26	32	26	23	19
Very dissatisfactory	15	18	15	11	11
No answer	<u>3</u> 100	<u>3</u> 100	<u>2</u> 100	<u>4</u> 100	<u>5</u> 100

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Very satisfactory	5	3	6	7	6
Satisfactory	21	13	25	26	21
Tolerable	30	26	33	28	33
Dissatisfactory	26	29	24	25	28
Very dissatisfactory	15	24	10	10	12
No answer	<u>3</u> 100	<u>5</u> 100	<u>2</u> 100	<u>4</u> 100	<u>0</u> 100

When 71% of Lehigh men find their social life ranging from merely "tolerable" to "very dissatisfactory" something is seriously wrong with campus life. Only someone who believes that existence at the University can be reduced to disparate categories labeled "class" and "social life" would fail to take these figures seriously. We believe that this degree of social discontent is bound to have a sharply deleterious effect upon academic performance and upon student attitudes to the University as a whole. The Committee does not assert that coeducation can provide a total answer to this expression of discontent since many different factors undoubtedly affect social attitudes. It does believe, however, that the presence of women undergraduates will do a very great deal to produce a much more satisfactory social atmosphere and that no adequate substitutes can be found for the presence of females.

It is also abundantly clear that, in the opinion of both faculty and students, coeducation would substantially improve the cultural activities of the University. The figures are as follows:

(In percentages)
(N=1516)

If Lehigh were coeducational, do you think the range of your outside activities, both extracurricular and cultural, would be

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Enlarged and enriched	76	83	77	71	69
Diminished and depreciated	2	1	2	2	2
Unaffected	21	16	20	26	28
No answer	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Enlarged and enriched	76	82	72	75	76
Diminished and depreciated	2	1	2	2	1
Unaffected	21	17	26	21	23
No answer	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{2}{100}$	$\frac{0}{100}$

(In percentages)
(N=291)

If Lehigh were coeducational, and the ratio of men to women were around 4 to 1, in what way do you think this would affect the character of cultural activities on campus? Would it

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Improve it	74	78	88	75	73	62	29
Leave it unaffected	16	12	8	19	18	21	43
Damage it	4	4	4	4	0	4	14
No answer	$\frac{6}{100}$	$\frac{6}{100}$	$\frac{0}{100}$	$\frac{2}{100}$	$\frac{9}{100}$	$\frac{13}{100}$	$\frac{14}{100}$

If the ratio were 7 to 1?

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Improve it	40	39	32	44	64	42	21
Leave it unaffected	36	35	48	40	9	25	36
Damage it	14	13	20	11	18	21	21
No answer	<u>10</u> 100	<u>13</u> 100	<u>0</u> 100	<u>5</u> 100	<u>9</u> 100	<u>12</u> 100	<u>22</u> 100

If the ratio were 3 to 1?

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Improve it	74	76	96	71	82	67	36
Leave it unaffected	13	10	0	19	18	17	21
Damage it	4	3	4	6	0	4	14
No answer	<u>9</u> 100	<u>11</u> 100	<u>0</u> 100	<u>4</u> 100	<u>0</u> 100	<u>12</u> 100	<u>29</u> 100

Facing the question of the comparative distraction that women on campus might present, the Committee asked the students three questions.

Would you, personally, find it distracting or inhibiting to have women in your classes?

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Yes	13	9	17	12	16
No	82	88	79	83	78
No opinion	4	3	3	4	4
No answer	<u>1</u> 100	<u>0</u> 100	<u>1</u> 100	<u>1</u> 100	<u>2</u> 100

Do you think the effect on your classroom preparation with women present at Lehigh would be

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
To make you work harder	25	28	28	22	20
Insignificant	48	47	43	50	53
To make you work less hard	5	4	6	5	7
No basis for judgment	21	20	22	21	18
No answer	<u>1</u> 100	<u>1</u> 100	<u>1</u> 100	<u>2</u> 100	<u>2</u> 100

Do you think the effect on your classroom participation with women present at Lehigh would be

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
To make you participate more actively in class	35	46	34	29	28
Insignificant	46	38	45	50	55
To make you participate less actively in class	5	4	7	5	5
No basis for judgment	12	11	13	14	11
No answer	<u>2</u> 100	<u>1</u> 100	<u>1</u> 100	<u>2</u> 100	<u>1</u> 100

Only 13% of the responding students thought that women would distract them in classes while 82% thought that women wouldn't be a distraction. Substantially more students believed that they would better prepare for and participate in classes than students who believed that they would work less hard and participate less actively in class.

K. ATMOSPHERE OF CLASSES AND QUALITY OF DISCUSSION

Most students who responded believed that the presence of women would positively affect the atmosphere of classes at Lehigh. This majority was held constant across college lines.

(In percentages)
(N=1516)

In what ways do you think the presence of women would affect the atmosphere of classes here

	CLASS				
	<u>Total</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>	<u>1969</u>
Positive	73	83	71	71	67
Negative	8	5	11	11	10
Little or no effect	16	11	16	16	22
No answer	$\frac{3}{100}$	$\frac{1}{100}$	$\frac{2}{100}$	$\frac{2}{100}$	$\frac{1}{100}$

We then asked the faculty two of the most important questions in the entire study. In the following questions substantially more faculty stated that the presence of both sexes in classes would increase student participation and improve the quality of discussion than those faculty who replied negatively on both questions.

(In percentages)
(N=291)

In your discipline, what effect do you think having both sexes represented in classes would have on: the willingness of students to ask questions and engage in discussion with the instructor and other students; and, more generally on full and free discussion

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Little or no effect	59	48	36	87	64	42	64
Increased amount of student participation	33	47	60	7	18	29	14

38

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Restricted amount of student participation	3	2	4	5	0	0	7
No answer	5	3	0	0	18	29	14
Not relevant	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{1}{100}$

Do you think that having women in your classes at Lehigh would result in

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Improved quality of discussion	41	55	72	16	36	25	21
Reduced quality of discussion	3	3	4	2	0	0	14
Little or no effect on the quality of discussion	51	38	24	82	64	37	50
No answer	$\frac{5}{100}$	$\frac{4}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{38}{100}$	$\frac{15}{100}$

L. HOUSING

Chapter IV gives a detailed analysis of the housing requirements from a financial standpoint. At the time of the preparation of this report no decision has been made to expand the existing residence halls complex. Therefore, the analysis in Chapter IV presumes that the housing needs of women must be borne in mind in the consideration of the question of coeducation at Lehigh. Although the large capital expenditures necessary to provide housing are self-liquidating in that rental rates should be established on the basis of providing for retirement of the asset as well as providing for the operating costs incident to their use, it nonetheless limits the borrowing position of the University. The estimates that are used to determine the total capital expenditure (\$11,000/person) to house and feed each student presume the same mode of living as the most recently constructed residence halls. The Committee would like to suggest that serious consideration be given to the diverse desires of students in regard to housing independent of any decision on the matter of coeducation. Consideration of private housing, apartments and co-housing would not only give students a wider choice, and thus mirror the wider choices desired by students, but would also bring advantage to the University in that space and capital borrowing limitations would be minimal. To assume that undergraduates are wholly content with the modes of living now provided is to ignore the recent trend of students in seeking off-campus housing. The plea is made here that careful consideration be given to providing diverse forms of housing, thus giving vent to a wider range of student choice and, at the same time, reducing some of the limitations imposed on facilities planning.

An indication of the diversity of the views concerning housing found among current Lehigh students, faculty and prospective female students was recorded in our results. A majority of Lehigh students who responded favored the availability of various kinds of co-housing and responded that they would personally prefer to live in some form of co-housing. The results are shown below.

(In percentages)
(N=1516)

Some universities contend that coed class and social activities are not sufficient to achieve the most effective student social relationships and, therefore, should be supplemented with some form of co-housing (i.e., women in the same dorm as men but on separate floors; women in separate apartments but on the same floor).

I. Generally speaking, would you favor the availability of some form of co-housing, if Lehigh were to become coeducational?

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Yes	81	87	77	79	78
No	17	12	21	19	21
No answer	<u>2</u> 100	<u>1</u> 100	<u>2</u> 100	<u>2</u> 100	<u>1</u> 100

If your answer was "Yes," which type do you feel should be available?

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Co-housing with coeds in the same dorm but on separate floors.	18	14	23	17	13
Co-housing with coeds in separate apartments but on the same floors.	13	15	10	14	10
Both (a) and (b) should be available.	50	57	44	48	54
No answer	2	2	2	4	2
Not relevant	<u>17</u>	<u>12</u>	<u>21</u>	<u>17</u>	<u>21</u>

As far as your own preference is concerned, would you want to live in some form of co-housing, if Lehigh were to become coeducational?

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Yes	71	78	70	65	69
No	26	19	28	30	31
No answer	3	3	2	4	0
Not relevant	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>
	100	100	100	100	100

If your answer was "Yes," would you want to live in co-housing, which type would you prefer?

	COLLEGE				
	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Co-housing with coeds in the same dorm but on separate floors.	16	13	20	12	7
Co-housing with coeds in separate apartments but on the same floor.	30	38	25	31	27
Either (a) or (b).	27	28	26	27	33
No answer	3	3	2	2	2
Not relevant	<u>24</u>	<u>18</u>	<u>27</u>	<u>28</u>	<u>31</u>
	100	100	100	100	100

The faculty responses were split on the question of the availability of co-housing and those who favored co-housing were widely distributed on the issue of specific forms which they felt should be available. Results are illustrated below.

Some universities contend that coed class and social activities are not sufficient to achieve the most effective student social relationships and, therefore, should be supplemented with some form of co-housing (i.e., women in the same dorm as men but on separate floors; women in separate apartments but on the same floor).

I. Generally speaking, would you favor the availability of some form of co-housing, if Lehigh were to become coeducational?

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Yes	47	53	44	40	36	58	29
No	47	38	56	55	55	42	71
No answer	6	9	0	4	9	0	0
Not relevant	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{1}{100}$	$\frac{0}{100}$	$\frac{0}{100}$	$\frac{0}{100}$

If your answer was "Yes," which type do you feel should be available?

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Co-housing with coeds in the same dorm but on separate floors.	19	19	8	19	9	25	21
Co-housing with coeds in separate apartments but on the same floor.	4	5	0	4	0	4	0
Both (a) and (b) should be available.	25	27	36	19	36	25	7
No answer	6	11	0	4	0	4	0
Not relevant	$\frac{46}{100}$	$\frac{38}{100}$	$\frac{56}{100}$	$\frac{54}{100}$	$\frac{55}{100}$	$\frac{42}{100}$	$\frac{72}{100}$

We also decided to query prospective female honor students on their housing desires were they to attend Lehigh. The Committee did not insert this question in all the questionnaires thus the following results are not meant to be conclusive but rather should be considered as fairly indicative of the variety of housing desires Lehigh might expect from female students.

(In percentages)
(N=98)

If you decided to come to Lehigh, which of the following living group arrangements do you think you would choose?

	Percentage
a. Women's dorm and dining at the University Center cafeteria	30
b. Women's section of a mixed dorm complex	50

	Percentage
c. Living and dining in a University apartment with other female students	15
d. Living off campus in a University approved private home	$\frac{5}{100}$

SUMMARY

Chapter II Sections G-L

1. Lehigh would be able to attract sufficient numbers of highly qualified female applicants from which the University could select a class corresponding to any of our contemplated models.
2. On a noncontrolled distribution female applicants would emphasize the natural sciences and mathematics. Over a period of time the distribution should tend to become more normal.
3. The expected academic achievement and attrition rates of the kind of women Lehigh would be able to enroll will be approximately the same as those of our current male undergraduates.
4. Undergraduates responding to our questionnaire expressed widespread dissatisfaction with the existing social life at Lehigh. We believe their discontent adversely affects their academic performance and that this problem would be lessened by a coeducational University.
5. Majorities of Lehigh students and faculty believe that the presence of women would substantially improve the cultural life of the University.
6. The majority of Lehigh undergraduates and significant numbers of faculty who would be most affected believe that the presence of women would improve classroom atmosphere, student participation and quality of discussion.
7. The Committee suggests that careful consideration be given to the provision of diverse forms of housing in order to provide a wide range

of choice and to reduce some of the limitations imposed on facilities planning. We are led to this conclusion by the wide diversity in the housing preferences of female applicants, the strong preference of a majority of male undergraduates for some form of co-housing and the divergence of views indicated by the faculty.

CHAPTER III

The Education of Women and Lehigh's Potential Role

The evidence so far presented has been essentially self-serving and intentionally so since the primary obligation of the University must of necessity be a careful assessment of its own particular needs and interests. However, a great University such as Lehigh which has helped provide generations of leadership for the country in many diverse fields cannot be content with merely selfish considerations. On the contrary Lehigh has always sought to respond to the needs and interests of the wider society of which we are a part. It is therefore vital that we ask questions about the place of women in our society and about Lehigh's potential role in the national scene.*

The basic facts are as follows:

The percentage of women in the labor force has increased from 25% in 1940 to 36% in 1966. Of those who possess college educations women now constitute over one-third of all professional and technical workers. Their occupational distribution shows a steadily upward movement in occupations.

*All the figures in this section are based upon Gardner Patterson, "The Education of Women at Princeton," Princeton Alumni Weekly, Vol. 69 (September 24, 1968), pp. 14-15. Dr. Patterson is Professor of Economics and International Affairs at Princeton. His data are derived largely from National Science Foundation reports and the Bureaus of Census and Labor Statistics.

Table 3-I

Occupational Distribution of College-Educated Women
Employed in White Collar Occupations 1948-1966

<u>OCCUPATION</u>	(In percentages)			
	<u>1948</u>	<u>1959</u>	<u>1964</u>	<u>1966</u>
I. Professional, technical and kindred workers	69.9	79.1	77.0	80.3
--Medical and other health workers	----	7.0	8.6	9.8
-- Teachers, except college	----	52.0	51.1	48.5
--Other professional, technical and kindred workers	----	20.4	17.2	22.0
II. Managers, officials and proprietors, except farm	4.5	4.1	4.6	4.0
III. Clerical and kindred workers	21.1	11.8	12.1	10.1
IV. Sales workers	----	<u>2.3</u>	<u>2.2</u>	<u>2.2</u>
Total employed as white collar workers	95.6	97.3	95.9	96.6

The number of women scientists is rising whether considered absolutely or relatively as the following table shows:

Table 3-II

Women Scientists in the United States
By Selected Major Fields 1960 and 1966

<u>Field</u>	<u>1960</u>		<u>1966</u>	
	<u>Number of Women</u>	<u>Percent of Total (Men & Women)</u>	<u>Number of Women</u>	<u>Percent of Total (Men & Women)</u>
All Fields	12597	7.7	16384	8.3
Chemistry	3346	6.3	4995	7.6
Earth Sciences	418	2.4	654	3.3
Meteorology	66	1.7	129	2.1
Physics	566	2.7	981	3.4
Mathematics	1633	10.5	2395	10.5
Agricultural Sciences	35	---	50	---
Biological Sciences	3139	13.1	3347	11.3
Psychology	3394	22.2	4233	22.2

Sources: National Science Foundation, National Register of Scientific and Technical Personnel, 1966, and National Science Foundation, American Science Manpower, 1960, Washington, D.C. 1962.

In the decade 1950-1960 the number of female physicians increased by 54% and in the period 1948-1963 the number of lawyers more than doubled. The opportunities for women with training in business and economics for responsible positions in the business professions, such as public accounting, industry and government are also excellent. Many women have advanced to managerial level positions. More young women are enrolling in collegiate schools of business than ever before. Approximately 20% of all college undergraduates (male and female) in this country are currently enrolled in programs permitting specialization in economics and business. Lehigh has a very fine opportunity to serve interested young women in this segment of undergraduate education by becoming a coeducational institution.

The evidence indicates clearly that changing attitudes among women and in social values, combined with the growing complexity and size of the economy will accentuate the trends described above. In the face of these developments it is difficult to believe that women will take for granted what has been true for so long: that they have less opportunity than a man to attend a first-rate college of their choice.

The general social situation we confront then involves a continuing revolution in the attitudes of women to careers. This in turn is part of a steady democratization of our institutions at the sexual level. Few institutions today draw the bulk of their students from single-sex preparatory schools and these in turn are rapidly becoming coeducational. Segregation by sex is perceived increasingly as discriminatory and inconsistent with democratic values.

The Committee believes that it would be imprudent for Lehigh to persist with its present all-male status in the light of these considerations, since single-sex institutions are likely to be seen as more and

more anachronistic with the passage of time. More important, it believes that it is right that women have the same educational opportunities as men and, therefore, that it is right that Lehigh should admit them.

Even if great weight is given to the validity of these arguments Lehigh must answer honestly and squarely before a decision is taken whether we are prepared to do justice to women students and whether we are in a position to do so. This requires that we accept coeducation not as a mere means to improve our academic and social life but because we believe that women ought to receive an education equal to men and that we are prepared to address ourselves to this goal as part of the objectives and purposes of Lehigh as a fine University with a great and proud tradition of scholarship and service. Unless we can give an affirmative answer to these questions Lehigh should not admit women. It is the conviction of this Committee that the Lehigh community has the resources of mind and spirit necessary to meet this challenge.

Our research has convinced us that no large-scale changes in curriculum would be needed and only minor additions to the administrative staff. We do anticipate some problems with excessive competition between the sexes and the possibility exists that a tiny minority of students will attempt to exploit the situation for their own selfish purposes.

We therefore strongly recommend that, if the decision is taken to make Lehigh a coeducational institution, the President appoint a Committee on the Education of Women at Lehigh to be composed of appropriate members of the faculty, students and administration. This Committee should have the specific task of supervising the transition to a coeducational institution in all its aspects and have the responsibility for recommending action in curriculum, social life and discipline to the

appropriate bodies of the University. The Committee should also be charged with the duty of recommending to the President, on the basis of the University's experience with coeducation, on the advisability of expanding the number of women to the proposed level of 800.

CHAPTER IV

The Forms of Coeducation:
Problems of Ratio and Size

Early in its deliberations the Committee gave careful attention to the advantages and disadvantages of the various forms coeducation might take. These range from a coordinate plan involving the establishment of a separate institution with its own trustees, faculty, administration, degree and physical facilities to a scheme of coeducation in which the sex of applicants would not be considered. Extensive studies prepared by other leading institutions were made available to us--the Vassar-Yale Report, the Wesleyan Study and the Princeton report among others. These studies make it perfectly plain that, while each plan has certain academic advantages and limitations, neither the establishment of a coordinate college or a plan involving completely open admissions is practicable for Lehigh.

There are reasons of great weight why Lehigh should not attempt to become coeducational on the basis of open admissions with no distinction as to sex. While this approach would treat all applicants equally it would result in a significant reduction in the number of men admitted and it would result in a sharp shift in course enrollments away from engineering. This is clearly unacceptable since Lehigh has a national reputation in these areas and since the University has enormous investments in faculty and equipment in engineering which could not be reduced without a shocking waste of resources.

A coordinate institution is ruled out of court by the costs alone which are staggering. The Princeton estimates show clearly that the additional costs of a coordinate college of 1000 women would be \$20 million,

that faculty salary costs would be double if a separate faculty were recruited and that the operating deficit would require capital endowment of \$50 million. These costs render coordinate education impossible for Lehigh.

The Committee, therefore, concentrated its attention on models which fulfilled two conditions: (1) they were within the realm of financial possibility and (2) they would not change in a fundamental manner the existing balance of the University. With these assumptions the Committee posed a number of alternative choices for the faculty and students. The following results were obtained:

If women were to be admitted at Lehigh, one of the following models is a likelihood. Please rank all of these models in order of your personal preference.

MODEL A:

Keep the number of male undergraduates constant and add 200 women to each entering class.

(In percentages)
(N=291)

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Rank 1	45	44	60	45	55	33	50
Rank 2	16	19	8	12	18	13	21
Rank 3	15	11	12	16	27	21	21
Rank 4	6	9	0	6	0	4	0
Rank 5	2	2	4	2	0	4	0
No answer	16	15	16	19	0	25	8
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

(In percentages)
(N=1516)

	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Rank 1	32	26	36	35	27
Rank 2	22	26	20	19	31

(CONTINUED)

	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Rank 3	19	19	17	21	18
Rank 4	9	11	10	8	9
Rank 5	3	3	3	3	4
No answer	<u>15</u>	<u>15</u>	<u>14</u>	<u>14</u>	<u>11</u>
	100	100	100	100	100

MODEL B:

Omit 100 men from each entering class and replace them with 100 entering women.

(In percentages)
(N=291)

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Rank 1	6	8	4	2	18	8	0
Rank 2	15	17	16	10	9	21	21
Rank 3	29	35	32	27	36	12	7
Rank 4	16	8	12	25	27	13	43
Rank 5	4	4	0	5	0	8	8
No answer	<u>30</u>	<u>28</u>	<u>36</u>	<u>31</u>	<u>10</u>	<u>38</u>	<u>21</u>
	100	100	100	100	100	100	100

(In percentages)
(N=1516)

	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Rank 1	5	4	5	6	4
Rank 2	20	19	22	18	21
Rank 3	29	35	28	26	24
Rank 4	22	19	22	24	30
Rank 5	3	3	2	2	3
No answer	<u>21</u>	<u>20</u>	<u>21</u>	<u>24</u>	<u>18</u>
	100	100	100	100	100

MODEL C:

Omit 200 men from each entering class and replace them with 200 entering women.

(In percentages)
(N=291)

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Rank 1	21	26	20	12	18	29	7
Rank 2	19	23	24	13	27	13	7
Rank 3	8	11	4	5	18	4	14

(CONTIN.)

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Rank 4	12	10	12	17	9	8	7
Rank 5	15	5	8	28	18	13	43
No answer	<u>25</u>	<u>25</u>	<u>32</u>	<u>25</u>	<u>10</u>	<u>33</u>	<u>22</u>
	100	100	100	100	100	100	100

(In percentages)
(N=1516)

	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Rank 1	35	45	29	31	33
Rank 2	17	20	15	17	10
Rank 3	11	9	13	11	19
Rank 4	9	8	11	8	7
Rank 5	14	8	17	15	18
No answer	<u>14</u>	<u>10</u>	<u>15</u>	<u>18</u>	<u>13</u>
	100	100	100	100	100

MODEL D:

Attempt an experimental program with an established women's college.

(In percentages)
(N=291)

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Rank 1	19	12	8	31	9	21	36
Rank 2	11	7	4	19	27	12	7
Rank 3	7	6	12	7	9	4	7
Rank 4	17	23	24	7	18	17	14
Rank 5	18	20	20	12	37	13	14
No answer	<u>28</u>	<u>32</u>	<u>32</u>	<u>24</u>	<u>0</u>	<u>33</u>	<u>22</u>
	100	100	100	100	100	100	100

(In percentages)
(N=1516)

	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Rank 1	24	19	26	24	33
Rank 2	12	13	13	10	11
Rank 3	10	9	10	11	11
Rank 4	20	25	18	17	19
Rank 5	17	17	17	17	13
No answer	<u>17</u>	<u>17</u>	<u>16</u>	<u>21</u>	<u>13</u>
	100	100	100	100	100

MODEL E:

Keep the number of male undergraduates constant and admit women only at the junior level.

(In percentages)
(N=291)

	<u>Total</u>	<u>Arts</u>	<u>Bus</u>	<u>Engr</u>	<u>Educ</u>	<u>Admin</u>	<u>P.E. ROTC</u>
Rank 1	3	4	0	6	0	0	0
Rank 2	9	4	12	16	18	0	21
Rank 3	11	7	4	16	9	17	29
Rank 4	17	17	16	13	36	17	14
Rank 5	29	35	36	22	37	21	14
No answer	<u>31</u>	<u>33</u>	<u>32</u>	<u>27</u>	<u>0</u>	<u>45</u>	<u>22</u>
	100	100	100	100	100	100	100

(In percentages)
(N=1516)

	<u>Total</u>	<u>Arts</u>	<u>Engr</u>	<u>Bus</u>	<u>Arts Engr</u>
Rank 1	2	2	3	2	1
Rank 2	8	5	9	12	9
Rank 3	10	8	12	7	14
Rank 4	17	16	18	16	16
Rank 5	41	49	38	38	44
No answer	<u>22</u>	<u>20</u>	<u>20</u>	<u>25</u>	<u>16</u>
	100	100	100	100	100

A. GENERAL CONCLUSIONS

1. Model A (keeping male numbers constant and adding 200 women) is easily the first choice among the faculty, while students are almost equally divided between Model A and Model C (omitting 200 men from each entering class and adding 200 women).

2. Model B (omitting 100 men from each entering class and replacing them with 100 women) receives very small support as a first choice probably because it is viewed as a token gesture. This hypothesis is supported by the facts that:

3. Model C receives much stronger faculty support than Model B even though Model C proposes a reduction of 200 in the male entering class. This sentiment is shared in even stronger fashion by the students whose concern is shown clearly not to be the replacement of males but that a larger number of females be admitted to Lehigh.

4. Students are definitely more prepared than faculty to omit men from entering classes in order to achieve coeducation and this interpretation is supported by the fact that over 70% of the Lehigh student body supported the reduction of entering males if sufficient funds could not be found to cover new expenditures. (Table C-XIII) These preferences cut across college lines, although a reduction in entering males is less popular among Engineering and Business students than among Arts students.

5. Engineering faculty seem much more averse to a reduction of entering males as a way of going coed than their colleagues in Arts and Business. This result is consistent with the fact that Engineering faculty were evenly divided on whether admitting women would justify a reduction in the number of entering males if sufficient funds could not be found. (Table A-XVIII)

6. Model D (an experimental program with an established women's college) is regarded very coolly by Arts and Business faculty but is strongly supported by Engineering Faculty. It receives fairly strong student support for which two possible reasons exist: (1) It is probably viewed as better than no coeducation at all and (2) Many students probably looked upon this choice as an addition to and not a substitute for coeducation at Lehigh.

7. Model E is a non-starter.

8. There is a surprisingly large percentage of "No answers" on all questions. In all likelihood this illustrates the sharp difficulties of the choices presented and the problems posed of envisaging consequences with the sparse data available. In particular, neither students nor faculty had any data on the likely distribution of female students in the various curricula.

B. RECOMMENDATIONS

The Committee, after a careful weighing of all the factors which inevitably go into a decision of this kind, recommends:

1. That Lehigh adopt coeducation on the basis of Model A, i.e., the admission of 200 women to the entering class and that the University remain a single institution in all its aspects.

2. That this goal be approached in stages with the first class of women to constitute 100 in the fall of 1971, if circumstances permit.

3. That if ensuing experience with coeducation justifies going ahead, and financial resources are available, that the first class of 200 women be admitted in the fall of 1973.

We believe, in support of these recommendations, that Lehigh would be unwise to attempt to achieve the goal of coeducation by omitting male students. There are two reasons which lead us to this conclusion:

- (1) Lehigh has a proud tradition of preparing males for roles of leadership in our society and this contribution should not be reduced;
- (2) Lehigh as a private University is subject to great financial pressures and is heavily dependent upon the loyal support of its alumni. We believe that any reduction in the male entering class would receive an adverse reaction from these alumni.

C. THE QUESTION OF RATIOS

There is, of course, no magic number of women which will help provide the kind of improved educational environment we all seek. There is general agreement among colleges which have attempted the experiment that small numbers are unsatisfactory to everyone concerned and only result in a doomed experiment with high dropout rates, transfers and excessive pressure on the women students. Beyond this weak generalization no strong evidence exists to suggest what the ratio of women to men should be.

We have recommended a 4:1 ratio because (1) We believe it is a ratio large enough to have a significant impact upon the academic and social life of the University, and (2) We believe that the operating and capital costs of such an expansion are within the range of financial possibility. This last statement requires a detailed examination of the feasibility of coeducation at Lehigh and this subject is dealt with in detail in the next chapter of the report.

D. THE QUESTION OF SIZE

In weighing the question as to whether Lehigh should try to become a coeducational institution by reducing the number of entering males, the Committee was forced to consider the issue of size.

On an issue of this sort several basic facts emerge: no agreement exists on the ideal size of an undergraduate component. MIT believes 3800 is a good number while Harvard rests content with 4800. Prestigious arts colleges such as Hamilton and Swarthmore believe firmly that 800-1000 provides a superior model.

Lehigh has decided for reasons of its own to be a medium-sized University in an attempt to maintain a maximum of personal contact between and among students and faculty while maintaining the wide range of academic power only available to a university of considerable numbers. We believe this approach is basically sound and that very large increases in the size of the university would and should be deprecated.

We do not believe, however, that an increase of the modest proportions we propose would have a negative effect on life at Lehigh. On the contrary we think that the addition of 800 women would likely lead to an increase in the sense of cohesiveness and add greatly to the appreciation of Lehigh as a community. Our convictions on this point stem from our belief that the addition of women would lead to an immense improvement in social life and a rise in student morale. The effective social units today at Lehigh are neither the total student body nor a particular class. They are the smaller groups which exist in the fraternities, the residence halls and the informal groups which form on the basis of common interests based upon intellectual interests, career ob-

jectives and personal liking. These would be immensely strengthened by the addition of women.

Finally, it should be pointed out that the addition of women would not affect adversely the size of classes except in the case of lectures where nothing is lost by small increments of size and where substantial efficiencies are generated.

CHAPTER V

The Feasibility Issue

Our study of the feasibility of admitting women to Lehigh concentrates on an analysis of the operational and capital expenditures for two models: one adding 400 women and one dealing with an addition of 800 women. We have presented both operating and capital costs at 1969-1970 prices; income figures relate to 1971.

In estimating operating costs we made calculations based on thorough investigations of all pertinent activities. To make our estimates more reasonable we incorporated a 5% safety factor and a 10% General Contingency Allowance into our analyses.

Table 5-1 below summarizes our financial estimates. Our main conclusions are:

- (1) At present levels of expenses tuition and fees, the additional income attributed to the admission of 400 and 800 women exceeds the corresponding operational expenses by \$250,000 and \$629,000 respectively.
- (2) The capital costs for the 400 model at present prices would be at least \$5,132,050.
- (3) The capital costs for the 800 model at present prices would be at least \$9,985,000.
- (4) Both capital cost estimates could be significantly higher if assumptions concerning some future Lehigh capital expenditures do not materialize particularly in the areas of faculty and non-faculty space demands, athletic facilities and a new library.
- (5) Both capital cost estimates could be substantially lower if current dining facility plans materialize.
- (6) It will be noted that Table 5-1 includes no mention of endowment necessary to support 400 or 800 additional students. If the University wishes to maintain its present endowment per student of \$11,000, it must include \$4,400,000 and \$8,800,000 for the

400 and 800 female models, respectively, for endowment. On the other hand, if endowment income is used primarily to offset operating expenses, this increase in endowment is unnecessary since both models show an operating surplus. Hence, the Committee decided not to simply include increased endowment as a cost in Table 5-1. The Committee is, therefore, aware that an increase in enrollment without an increase in endowment means a smaller endowment per student. The annual operating surplus could theoretically, of course, be partially used to increase endowment.

TABLE 5-I

Summary of Estimated Feasibility
of adding 400 and 800 Women

I. Annual Operating Budget Changes

	400 Model	800 Model
A. Additional Costs		
Educational & General	\$ 513,000	\$ 902,000
5% Safety Factor	26,000	45,000
10% General Contingency Allowance	<u>54,000</u>	<u>95,000</u>
	\$ 593,000	\$1,042,000
B. Additional Income		
Tuition and Fees	\$ 935,000	\$1,855,000
C. Additional Student Aid	\$ 92,000	\$ 184,000
D. Additional Gifts and Grants	\$ 0	\$ 0
Change In Total Operating Budget <u>[(B + D) - (A + C)]</u>	+ \$ 250,000	+ \$ 629,000

II. New Capital Costs

	400 Model	800 Model
A. Student Housing and Dining Facilities	\$4,400,000	\$8,800,000
B. Library	----	----
C. Health Services	\$ 2,000	\$ 2,000
D. Athletics	\$ 150,000	\$ 150,000
E. Rest Room Renovations	\$ 50,000	\$ 50,000
F. Lighting	\$ 62,500	\$ 75,000
G. Security	\$ 1,000	\$ 1,000
H. Parking Space	----	----
I. Classroom Space	----	----
J. Faculty and Non-faculty space	----	----
K. General Contingency Allowance	<u>\$ 466,550</u>	<u>\$ 907,800</u>
	\$5,132,050	\$9,985,800

A. GENERAL COMMENTS

Income surpluses are surprising at first glance. It has often been said that at Lehigh tuition covers approximately half the cost of educating our students and it is apparent that the present Lehigh per-student investment in capital costs is greater than our estimates concerning the addition of women. Despite these apparent conflicts no inconsistencies exist in our estimates when one considers the differences between marginal and average costs. In short, the addition of 400 or 800 undergraduate women would make possible a greater sharing of some faculty and facilities which reduces the per student costs attributed to our current undergraduates.

There are three outstanding facts about our estimates which are worthy of special consideration. The first is that all prices such as our \$11,000 per student costs for housing and dining are rising rapidly at an approximate rate of 10% per year. Thus, costs at construction time could be substantially higher than our estimates.

A second consideration concerns the "rate of growth" of operating costs and receipts over time. In the future it is possible that the surplus of income derived from the addition of women over corresponding operational costs could increase. It may be that the future may bring currently unknown sources of financial aid to private higher educational institutions. On the other hand the surplus of income over costs may disappear and even become a deficit. The point is simply that we can make no estimates about the future rate of change in the reported surplus of income over costs.

A third consideration which can seriously affect our estimates one way

or the other can be labeled "policy decisions." For example, in the operational area, a decision to admit women only into disciplines which are currently relatively underpopulated by students would obviously have an effect on our faculty costs. A decision to admit only those girls who are academically qualified and not in need of financial aid would also have an effect on our operational costs.

Likewise, in the area of capital costs, policy decisions concerning possible future expenditures could have an effect on our estimates. For instance, a decision that physical education is not compulsory for women would reduce the amounts of capital required. Moreover, future decisions regarding Lehigh capital expansion in the areas of faculty and administrative space, athletic facilities, the library and classroom space would have an impact upon the total amounts needed, although the percentage which could be reasonably attributed to the addition of women would be minimal.

B. SUMMARY OF ESTIMATES - OPERATIONAL COSTS

The main element of increase in operating costs would be faculty salaries and associated benefits closely followed by indirect costs.

Table 5-II is presented below.

Table 5-II

Operational Summary Estimate of Costs

	400 Model	800 Model
Operating and General		
A. Faculty Salaries & Benefits	\$ 288,000	\$ 531,000
B. Indirect Costs (50% of Faculty Salaries)	125,000	231,000
C. Other Staff Salaries	<u>100,000</u>	<u>140,000</u>
SUB-TOTAL	\$ 513,000	\$ 902,000
5% Safety Factor	26,000	45,000
10% General Contingency Allowance	<u>54,000</u>	<u>95,000</u>
SUB-TOTAL	\$ 593,000	\$1,042,000
D. Financial Aid & Scholarship	<u>\$ 92,000</u>	<u>\$ 184,000</u>
TOTAL	\$ 685,000	\$1,226,000

Estimates regarding teachers salaries are based on four assumptions.

- (1) They were made in accordance with our non-controlled distribution and could be decreased with some admission distribution control.
- (2) There would be no great increase in the number of courses offered.
- (3) All estimates were made after direct discussions with department heads.
- (4) There would be no significant change in teaching methods or teaching loads.

Table 5-III which follows details our faculty salary information.

College and Department	Projected Enrollment, % of Entering Females ^a	Additional Faculty		Teaching Assistants		Instructors		Assistant Professors		Associate or Full Professors		Additional Compensation, (Salaries + Benefits) ^c	
		400 ^b	800 ^b	400	800	400	800	400	800	400	800	400	800
COLLEGE OF BUSINESS & ECONOMICS	8	1	2	-	-	-	-	1	1	-	1	12,000	27,000
SCHOOL OF EDUCATION	-	6	12	4	8	-	-	2	4	-	-	36,000	72,000
COLLEGE OF ENGINEERING (+ CHEMISTRY) ^d	5 (+4)	(2)	(4)	(2)	(3)	-	-	-	(1)	-	-	(6,000)	(24,000)
COLLEGE OF ARTS & SCIENCE	83	32	54	16	25	2	6	14	22	-	1	234,000	408,000
Biology	15	6	11	4	8	-	-	2	2	-	1	36,000	63,000
English (+ Speech & Journalism)	10 (?) ^e	3 (+1)	7 (+2)	1	2	1(+1)	3(+1)	1	2(+1)	-	-	24,000 (+9,000)	57,000 (+21,000)
Fine Arts	2	1	1	-	-	-	-	1	1	-	-	12,000	12,000
Geology	1	1	2	1	2	-	-	-	-	-	-	3,000	6,000
German	3	-	-	-	-	-	-	-	-	-	-	-	-
Government	2	1	1	-	-	-	-	1	1	-	-	12,000	12,000
History	3	3	3	2	2	-	-	1	1	-	-	18,000	18,000
International Relations	2	1	1	1	1	-	-	-	-	-	-	3,000	3,000

College and Department	Projected Enrollment, % of Entering Females ^a	Additional Faculty		Teaching Assistants		Instructors		Assistant Professors		Associate or Full Professors		Additional Compensation, \$ (Salaries + Benefits) ^c	
		400 ^b	800 ^b	400	800	400	800	400	800	400	800	400	800
Math	21	5	11	3	6	-	-	2	5	-	-	33,000	78,000
Music	(?) ^f	1	1	-	-	-	-	1	1	-	-	12,000	12,000
Philosophy	(?) ^f	-	-	-	-	-	-	-	-	-	-	-	-
Psychology	6	3	6	2	4	-	-	1	2	-	-	18,000	36,000
Religion	2	2	3	-	-	-	-	2	3	-	-	24,000	36,000
Romance Lang.	10	2	2	2	-	-	2	-	-	-	-	6,000	18,000
Social Relations	6	2	3	-	-	-	-	2	3	-	-	24,000	36,000
GRAND TOTALS	100	41	72	22	36	2	6	17	28	-	2	288,000	531,000

^a Based on results of questionnaires sent to high school students.

^b Two possible models considered, one adding a total of 400 females at 100 a year, the other adding 800 females at 200 a year.

^c Assumes annual compensation rates as follows: TA's, \$3,000; Instructors, \$9,000; Assistant Professors, \$12,000; Associate or Full Professors, \$15,000.

^d Unspecified engineering and chemistry separate items in questionnaire to high school students.

^e Speech and journalism not included in questionnaire; hence, no percentages available. Numbers in parentheses represent estimates by Speech based on service function. Journalism projects no faculty needed with as many as ten new majors.

^f Again, not included in questionnaire.

Probably the bulk of indirect operational costs will be encompassed by Academic Administration and Student Service personnel demands. Some of the enlarged demands and the necessity of providing more of such student services as health facilities, placement and counseling etc. are illustrated in Table 5-IV which follows.

Table 5-IV

Academic Administration and
Student Service Personnel Costs

	400 Model	800 Model
1. Counseling	\$ 20,000	\$ 22,000
2. Placement	7,500	7,500
3. Dean of Students	12,300	21,300
4. Dean of Student Life	10,000	10,000
5. Campus Security	15,000	15,000
6. Health Services	4,000	4,000
7. Dean of Residence	11,000	30,000
8. Physical Education Personnel	8,000	16,000
9. Admission Office	<u>20,000</u>	<u>30,000</u>
TOTAL	\$ 107,800	\$ 155,800

*These figures are approximate only and are not intended to be all-inclusive. They do not correspond exactly therefore, to the rounded numbers used in Table 5-II. It should be pointed out, however, that any additional costs which might be encountered could be covered by the allowance of the 50% Indirect Cost estimate.

Other areas such as Publications, Alumni and Development did not report any immediate personnel needs. All of the above estimates are subject to slight changes depending on assumptions. For example, residence needs assume a counseling system similar to the one currently experienced by our men. Other indirect operational costs include materials and supplies,

and general administration expenses. The admission estimate concerns mostly additional personnel. Financial aid estimates assume that women need and will receive the same proportion of scholarships as do men.

C. SUMMARY OF ESTIMATED - CAPITAL COSTS

The question of capital expenditures posed a challenge. The incomplete table is presented below.

Table 5-V

New Capital Costs		
	400 Model	800 Model
A. Student Housing and Dining Facilities	\$4,400,000	\$8,800,000
B. Library	----	----
C. Health Services	\$ 2,000	\$ 2,000
D. Athletics	\$ 150,000	\$ 150,000
E. Rest Room Renovations	\$ 50,000	\$ 50,000
F. Lighting	\$ 62,500	\$ 75,000
G. Security	\$ 1,000	\$ 1,000
H. Parking Space	----	----
I. Classroom Space	----	----
J. Faculty and Non-faculty space	----	----
K. General Contingency Allowance	\$ 466,550	\$ 907,800
	<u>\$5,132,050</u>	<u>\$9,985,800</u>

Our immediate concern was an examination of classroom space that would be required for each model. The Registrar's report stated that 400 more students could be accommodated with minor financial costs, but not 800, without major construction. The report said that the following difficulties would be encountered even if 400 students were considered:

- (1) Faculty will be assigned more class rooms away from their office and building.
- (2) Chemistry and Physics laboratories may have to be scheduled every half day including evenings and possibly Saturday afternoons.

- (3) Because of the desirability of the interdisciplinary majors, we will have to stay on a six-day week.
- (4) There will probably be more double quizzes since fewer large rooms will be available.
- (5) There may be more days per week for faculty in the classroom.

The question of space for additional faculty and non-faculty personnel was more difficult. Most administrative departments stated that they were currently at or near their space maximum and were looking forward to new or expanded quarters in the future. In no instance, however, did any office report that they could not adjust to the space demands of either the "400" or "800" model.

Perhaps the most outstanding expenditures would occur in the housing and dining area. At an estimate of \$11,000 to house and dine one person the costs in housing and dining would be \$4,400,000 and \$8,800,000 for the respective models. If however, the currently considered dining hall construction materialized we believe that both the 400 and 800 models could be accommodated. The question of housing facilities is somewhat similar at least in regard to the "400" model. If the presently contemplated "Centennial" complex materializes it may be true that there would be space available for at least 200 women. All this is speculation however as are possibilities concerning private interests controlling the housing problem. In our estimates we assumed that the girls should be on campus and that no future dining or housing facilities are involved.

Library expenditures were also considered. Despite the fact that the recently constructed Mart library virtually doubled our library seating capacity it appears as though a new library is still desirable. The committee believes, however, that any expense for a new library cannot be considered "additional costs due to the admission of women" and

Rest room renovations are estimated at \$50,000. It should be noted that this estimate is low because there are many female rest rooms already on campus and the estimate considers simple renovations rather than innovations.

Physical education facilities are currently overcrowded. Lockers are very scarce, office space is at a premium, and most facilities are extremely busy. A capital expenditure of approximately \$150,000 would be required immediately for locker room conversion to fulfill short term demands.

D. ADDITIONAL INCOME

The addition of 400 or 800 female students will result in more income received from tuition and application fees. It should be noted however, that no exact estimates can be made in either area. Receipts from tuition could be decreased considerably if many daughters of Lehigh personnel enter the freshmen class. Likewise, there is no way of being sure how many \$15.00 application fees the University will receive.

Alumni Giving is a crucial source of income to the University but it is impossible to predict accurately the effects of admitting women on Alumni Giving. We hope that if the question is handled with care and the alumni are informed and consulted there will not be a decline in Alumni Giving. Results from the alumni questionnaire should provide us with some revealing guidelines.

Even less accuracy can be claimed concerning future corporation, foundation and government grants. It may be that in the future relatively more legislative aid will be forthcoming to those institutions that do not discriminate in any way including sex. It may be however that future legislative aid will depend upon number rather than sex. We did not state any additional amount since we could find no specific grants available to coed institutions that are not available to single-sex institutions.

CHAPTER VI

Conclusion

The Joint Commission on University Life charged us with the responsibility of examining "the desirability and feasibility of Lehigh becoming a coeducational institution at the undergraduate level."

After a thorough examination of all the facts we have come to the conclusion that the answer to both aspects of this question is "yes."

We are deeply aware of the implications of this answer in the light of the long tradition of Lehigh as a male institution. We know that the issue is difficult and delicate and there have been times when we wished the responsibility for this report were not ours for we all feel deeply about Lehigh's tradition and share in the sense of guardianship for that heritage. But over many months of immersion in the data we have come to the definite conclusion that Lehigh's vital interests would be served by becoming a coeducational institution.

The reasons which led to this conclusion can be summarized under three broad headings: (1) the effects upon academic and social life; (2) the effects upon Lehigh's competitive position and (3) the changing role of women in our society and Lehigh's obligation to further that role.

The first major reason for our recommendation is that the admission of women would affect positively the social climate and strengthen the academic program of the University. We have presented figures which show that slightly over 70% of the students find Lehigh's social life to range from merely "tolerable" to "very dissatisfactory." No doubt many reasons exist for this feeling but no one who has had even remote contact with the students can doubt that the absence of women is a major factor in

their discontent or that this absence plays a significant part in the weekend exodus from the campus. There should be no mystery about these reactions when the vast majority of Lehigh men grow up in a coeducational high school environment. They simply take the presence of females for granted and they see positive disadvantages in an artificial separation at a critical period of their lives--the time when they are seeking to find themselves as adults.

Furthermore, we believe that the educational experience of Lehigh students would be greatly enhanced by a climate which more nearly resembles that in which they have lived and will live after they have graduated. We have found no evidence that the presence of females would be distracting in the classroom or that students would spend more time than they now spend in recreational activities. Indeed, the evidence points to the contrary conclusion. Present-day Lehigh students spend a disproportionate amount of time in search of female companionship aided by the ubiquitous automobile and it seems logical to conclude that time now spent in travel would be more economically employed on the campus.

We do not wish to imply that the majority of students whether male or female would regard coeducation as primarily a source of sexual convenience. This would be a gross exaggeration of the situation at other fine institutions which have become coeducational and a calumny upon the vast majority of students. We are confident that the high intellectual calibre of the women who would come to Lehigh would be an adequate guarantee of their serious educational aims and that the men would quickly recognize the strength of their intellectual capabilities and interests. Indeed, we are concerned that, in the beginning, a current of excessive academic competition might develop and the emergence of such an atmosphere would have to be guarded against.

We also believe the evidence indicates that Lehigh's competitive position for students would be greatly improved if the coeducational step were taken. This is so because approximately 80% of high school honor students prefer it and because it is supported by a significant majority (77%) of the Lehigh student body and a substantial majority of the faculty. Our studies of the admissions problems shows that we lose an important percentage of applicants to Lehigh because of our all-male character. To put the matter bluntly--the market for single-sex colleges is shrinking and can be expected to grow smaller as the number of prestigious single-sex universities declines. This means that those who would deny our recommendations on the ground that Lehigh is simply following the paths of other institutions bear a grave responsibility. For they must show how our competitive position can be maintained in the face of a deep national trend away from the single-sex university. When powerful institutions like Princeton and Yale openly admit their concern and take action to change their policies, it ought to be clear that no university, no matter how strong it may be, can ignore the signs of the times. We do not mean to imply that Lehigh's survival is at stake but rather that she would have to make greater and greater efforts in the years ahead to maintain her competitive position if she remained all-male. This task would be greatly eased if Lehigh were to become a coeducational institution, and the quality of students improved as a consequence.

As a University with a reputation for academic excellence we also believe that Lehigh should play its part in the attempts of this country to provide educational opportunities for women. This is an example of a case where duty and interest march hand in hand since the plain fact is that segregation by sex is increasingly regarded as anachronistic and discriminatory and is likely to become increasingly difficult to justify. Lehigh, of

course, can choose to remain a single-sex institution and resist the implications of the present change in social values and the pressure of facts which accompany those changes. If it does so, however, it is likely to pay an increasingly stiff price in terms of its competitive position and in the end may be forced to become coeducational under less favorable circumstances.

We do not favor reducing the number of male undergraduates in order to admit women for two reasons: (1) Lehigh should not reduce the size of its present contribution to the training of male leadership in our society and (2) the proposed increase would not have a detrimental effect on the personal quality of instruction and would enhance the sense of social cohesiveness at the University.

We recommend that coeducation be implemented on the basis of one administration, one faculty and one degree and that housing arrangements be such as to facilitate a maximum of choice in order to accommodate divergent student needs. The reasons for this recommendation are (1) the cost element which rules out a coordinate arrangement and (2) national trends which are moving to a pattern of full coeducation.

The pressures of time did not permit the Committee to explore the possibility of an experimental program with an established women's college and the University may want to examine this in detail. The Committee does feel, however, that due to Lehigh's particular location this approach is not likely to prove very fruitful and that, even if implemented, it would have minimal impact upon the majority of students at the University.

Taking all factors into account we believe that Lehigh should aim at a number of 800 women or 20% of the student body. Due to housing restrictions and the need to accommodate ourselves to the problems involved this

total should be approached in stages beginning with the admission of 100 women in the fall of 1971.

We think this number, while not ideal, will have a significant impact upon the academic and social life of the University and that it would appear to be a feasible objective. Our estimates are that the additional income from the admission of 400 and 800 women would exceed operational expenses by \$250,000 and \$629,000 respectively. The capital costs for these two models would be in the area of \$5,132,050 and \$9,985,800. These estimates are considerably lower than one would expect because Lehigh has created large faculties in the College of Arts and Science and Business Administration designed to serve the needs of engineering students. Small increments, therefore, will enable us to accommodate a substantial increase in size.

In conclusion, we would emphasize that this decision poses a great challenge to the moderation, restraint and good sense of the Lehigh community. At a time when many of the great universities of this country are facing truly massive waves of discontent and even violence, Lehigh has a magnificent opportunity to give a vital witness to its faith in the processes of reason. It is plain that an issue of this magnitude will raise sharp disagreements and strong emotional reactions and a debate about the purposes and objectives of the University is likely to ensue. Such a debate can have effects which are fundamentally healthy. It becomes a danger if disagreements are carried beyond democratic channels and assume the odious proportions of a crusade. We believe that, after everyone has been heard and the issues have been discussed thoroughly and fairly by every segment of the Lehigh community that the final decision, which rests with the Board of Trustees, will be accepted with equanimity and good grace.

To do less would be to deny our trust in the ultimate validity of

rational procedures by which all sides are heard, subjective preferences are weighed in the light of the total consequences for Lehigh and a final verdict is rendered by the supreme governing body of the University. In short, Lehigh is facing a test of the conditions which undergird a stable community--a settled procedure for arriving at corporate decisions and a commitment to accept the verdict of the final governing authority simply because it is the body charged with that responsibility. The Committee has complete confidence that Lehigh will pass this test.