

Reports of the Faculty Study Groups on the Recruitment and Appointment of Women and Minority Group Faculty

In the summer of 1976, Faculty Study Groups were appointed in each of the four divisions of the Faculty of Arts and Sciences in order to assess the status of affirmative action procedures in the recruitment and appointment of faculty. The charge given to the Study Groups is printed below, followed by the reports as submitted.

Dear Professor _____

On the basis of the review undertaken this fall of the effectiveness of the University's affirmative action program, the Provost and I have concluded that further development of the program requires a more systematic and significant faculty contribution. We are, therefore, asking for four studies, one in each of the divisions of the Faculty of Arts and Sciences, to examine ways in which affirmative action efforts can be improved.

I am writing to ask you to direct such a study for the Division of _____. I believe the value of the project will be significantly enhanced by the participation of senior faculty members from each of the major departments in the division. Hence you should feel free to request that a group be appointed to work with you. I am prepared to invite persons you recommend to serve on the study group. Research assistance will be available as needed.

The present program, which was initiated in the fall of 1972, consists largely of search guidelines and reporting procedures drawn up at the request of the Yale Corporation. Important progress has been achieved in communicating the objectives and principles of affirmative action and also in the appointment of women in junior ranks in the divisions of the Humanities and the Social Sciences. The program has produced less encouraging results, however, in the appointment of minority group members at all ranks, of women in the Physical Sciences, and of women in senior ranks generally. Moreover, it has been suggested that the present guidelines and procedures are cumbersome and consequently less effective than a process that would encourage departments to put their knowledge of the structure of the field to better use. We should, therefore, explore a variety of alternative or additional strategies to see how we can improve our performance.

I think our chances of success in the future would be significantly increased if the departments would assess systematically the likely supply of women and minority potential candidates for positions in the short and medium run future. Moreover, the quality of such a study of prospects and strategies for future action would be enhanced if it were developed by a group of people from several departments, each examining possibilities in their field, and meeting regularly enough to benefit from and exchange ideas and information about sources of data and possible strategies.

The study should address itself in particular to the following questions:

1) What is the nature of the pool for potential junior and senior appointments? Now? In the next five years?

2) At the level of entry into graduate training, what concrete steps should departments take to enlarge that pool?

3) What means tried by departments have been effective for identifying and recruiting minority group or women scholars? Do they share characteristics that could be incorporated into divisional guidelines?

4) How best can we ensure effective continuing faculty commitment to and participation in affirmative action?

Since the quality of affirmative action depends in large measure on the involvement of all concerned with appointment and promotion decisions, there should be discussion within departments of the ideas and recommendations generated during the course of the study. A report of the study's findings and recommendations should be submitted to me and the Provost by the end of the fall semester.

I hope you will agree to accept this important assignment.

Sincerely,
Kingman Brewster

Report of the Affirmative-Action Study Group
in the Social Sciences, February 1976

Early in the Fall semester of 1975-76 Provost Hannah Gray appointed a Study Group from Social Science departments to consider what steps might be taken to increase the effectiveness of the University's affirmative-action policy, with respect to faculty appointments and promotions. Irvin L. Child (Psychology) was named chairman of the Study Group, and the other members were Wendell Bell (Sociology), Richard R. Nelson (Economics), Bruce M. Russett (Political Science), and Harold W. Scheffler (Anthropology).

The Study Group met several times and prepared tentative notes and memoranda; these were incorporated into a draft of a report, which after discussion and revisions is presented herewith. The report is not confined to recommendations which would be endorsed unanimously. Our attempt was to incorporate all suggestions that some of the group considered to have merit and to be appropriate for at least some departments, recognizing that they might be inappropriate for others.

I. INTRODUCTORY COMMENT

When it was first explicitly formulated, Yale's affirmative-action policy seemed to be equally needed, and needed in similar ways, for women and for minority groups. That may still be true for many disciplines. We note that for some of the social-science departments, however, the situation is already different, and may become even more distinct, for these two groups: women and minorities.

With a determined policy of offering equal opportunities to the two sexes, several Yale social-science departments now have a considerable number of junior faculty members who are women, and there seems no reason to doubt, in at least some departments, that the proportion gaining tenure is likely to be similar for the two sexes. Simple projections into the future, therefore, lead us to expect within the next few years a decided increase in the number of women who will be tenurable in these departments. The key question then will be the availability of tenure positions.

For the minority groups to which we have been giving special attention, projections from the local situation are more risky, because the numbers are so much smaller, and we will not attempt any. When we attend to the pool of applicants for recent junior appointments, however, and to our impressions about graduate students here and elsewhere, we do not find any reason to expect dramatic changes at the faculty level except as a long-term result of future changes at lower levels. An effective affirmative-action program here may need to focus on doing what we can in Yale College and the Graduate School to strengthen the training and the orientation toward an academic career of qualified minority-group members, recognizing that large-scale impact on faculty make-up will come only if similar programs at many universities are successful.

The situation of women in some departments may be a close parallel to the general situation of minorities: In such departments as economics there has been a great increase in the number of able women getting their Ph.D.'s,

and a related increase in the number of women holding junior faculty positions. However, in absolute terms, the number of women taking Ph.D.'s in Economics, and on the faculty, is very small. This situation will only be changed if a greater number of women of high academic promise choose economics as an undergraduate major in various institutions.

Meanwhile, continued vigilance about equal opportunity for all, in faculty appointments, is well worthwhile, to avoid oversights that might result either from smugness about progress to date or from despair about progress in the future. But for some departments, with respect to women, that vigilance can safely carry the whole burden of an affirmative-action program; for other departments, and for all departments with respect to minorities, this vigilance should be recognized as only a first requirement, almost powerless in itself until the character of the appointment pool has been changed.

II. FACULTY RECRUITMENT AND APPOINTMENT

A. General considerations applicable at all levels

The narrower the definition of a slot to be filled, the fewer the candidates to be judged and the more likely that some one person will be clearly better than the next competitor. The broader the definition of a slot to be filled, the more numerous will be the competitors, and the more likely that two or more persons at the top of the ranking will not be distinguishably different in overall quality and that sex or minority-group membership can become relevant without sacrifice of standards of excellence. For this reason we see broad definition of vacancies, or several narrower definitions presented as alternatives, as offering promise for increased representation of groups now under-represented on the faculty. There would be some cost, of course, but not in excellence of personnel; the cost would lie only in perfection of fit between appointments and departmental judgment of current need for appointments in various specialties. This criterion of choice can be modified with less threat to the welfare of the university than can the criterion of excellence.

There clearly are important issues of trade-off here. In some cases, a department's argument that it very much needs somebody in some sub-field X and there are no women or minority candidates in that sub-field is a subterfuge for discrimination. In other cases, however, it is a valid argument reflecting departmental needs for teaching, balance, etc. From a department's perspective, particular teaching needs may have a more salient pull than the University wide need for more affirmative action. If University-wide interests in affirmative action are to carry equal weight in departmental decision-making, from time to time various forms of administrative intervention may be necessary.

For appointments at any level, there is some danger that suitable candidates who are women or minority-group members may be less likely to apply for the position than men or majority-group members, because the former may be more likely to define themselves out of the competition.

One reason they might do so is from a sense that Yale is not a place they would be at home, because they may feel it represents and

symbolizes an old social elite, rather than the high intellectual standards around which its values are more truly built. To the extent a belief that Yale is centered on a social elite is realistic, it is best countered by real changes in the local situation, which should eventually lead to a bettering of Yale's reputation as an institution representative of high intellectual standards in the various population groups that make up the country. To the extent a belief that Yale represents a social elite is unrealistic, it is best countered by varied attempts at correcting mistaken impressions of Yale, and by vigorous efforts to correct the isolated conditions that may sustain a generally unrealistic belief.

A second reason that some suitable candidates may be unlikely to apply for the position is that they may not think of the possibility of leaving a present appointment or abandoning home region or city for an appointment at Yale, even though they might be quite open to the possibility if led to consider it. Present procedures of advertising and inviting applications for Yale faculty positions greatly reduce this danger, but it is still present.

Some contribution could be made to solving both of these problems by each department's pursuing a regular policy of ensuring that full information about prospective openings (including the university's vigorous attempt at equal consideration of members of all groups) reaches as nearly as possible all potential appointees. Five devices seem especially promising for use every year or every other year. Some have been used by one or more departments in previous years. In various forms, adapted to departmental circumstances and policies, they are being used by several social-science departments during this academic year, and we will be able to report later on the information obtained.

(1) The chair of each Yale department might write to the chairs of departments elsewhere asking for names of especially likely candidates for appointment here at any level, with special but not exclusive attention to women and minority-group members, with information about their field of activity and professional level, so that appropriate job notices can, in the same or in a later year, be sent directly to each individual named. Alternatively, Yale departments which send out job notices to departments elsewhere, might modify the notices in a way suggested below as point (5), to decrease the possibility of any potential candidate's failing to apply because of a mistaken sense of futility.

(2) Past recipients of Ph.D.s from Yale might be addressed in the same way as department chairs at other universities, in either of the two alternative ways just mentioned.

(3) Faculty members and graduate students now at Yale could be sent a similar but more restricted request for information, limited to information about possible tenurable appointees. (This restriction is based on the assumption that the information available in this way will come principally from reading scientific publications and hearing convention talks, or from earlier experience as undergraduate students, and hence will be pertinent principally to advanced appointments rather than initial ones.)

(4) Professional associations can be asked for any pertinent listings they have prepared.

(5) Job notices, both in published form and as sent out to departments and individuals, might have a more elaborated and clearly non-perfunctory statement of points related to the affirmative-action policy. Such statements would vary with department and position, but an example might be: "We are not seeking a cognitive psychologist necessarily like those here now or in the past. We are strongly committed to diversified excellence. The opening has been defined somewhat broadly and vaguely in order to make sure no one fails to apply because of background in a very different kind of department, or because of interests stressing aspects of cognitive psychology not represented at Yale, or because of interests relating to sex or minority-group status. We have a positive interest in diversity, and will attempt to evaluate excellence on an equal basis regardless of its context."

Some devices are likely to be maximally useful if applied at rarer intervals. The following have been used and might be applied more widely:

(1) A department might gain much from inviting an outside team of women or minority group members to make a site visit to examine the department's affirmative-action procedures and to make recommendations for improvements. This is a way of finding the collective blindspots that we have and concentrating department discussion on fresh viewpoints. (The Department of Sociology last year invited a group from the Sociologists for Women in Society, and a very fruitful departmental discussion resulted.)

(2) Whether or not an outside team is brought in, departmental discussions may at appropriate times be very useful.

B. Tenure appointments

1. Tenure appointments likely to be made by promotion of Yale faculty.

When a non-tenured member of a department seems likely to be recommended for tenure, and the pertinent tenured position is authorized by the administration, the procedure of seeking outside opinions includes a request for names of alternative candidates and for comparative evaluations. With this procedure, the department will certainly learn of fewer candidates than it would by advertising a vacancy, since it asks the opinions of only a few outsiders, and does not invite applications. The vacancy will often be more narrowly defined, too, than it would be in an advertisement, and the potential candidates mentioned in the letters will thus be fewer than they might be with a broader definition.

In theory, therefore, there is the possibility of much wider recruitment of potential candidates for appointments now in this category. This gain for affirmative-action policy, however, could be achieved only at considerable cost: (1) the changed procedure would surely lower the morale of junior faculty members and reduce their feeling of membership in the department and university. (2) Strict adherence to the changed procedure -- probably essential if it were to be put into effect -- would greatly increase

the minimum decision time on promotion to tenure and doubtless cause some faculty members to accept positions offered them elsewhere instead of waiting for a decision here. For these reasons we cannot envision a department's choosing to make this radical change in procedure, and would strongly recommend against administrative introduction of any such change.

2. Tenure appointments likely to be made from outside

When a tenured vacancy is authorized and likely to be filled from outside, present procedures offer reasonable guarantee that qualified women and minority-group members who might consider applying at Yale will realize their eligibility and apply if they are actively seeking new employment. Present procedures could well fail to gain the attention of a potential applicant who could be interested but is not actively seeking change. Early in considering the possibility of such a vacancy, therefore, it would be desirable for one or more faculty members to be assigned the task of identifying potential candidates who might conceivably be interested and be very strong but might not think of applying, and of calling the vacancy to the attention of such people. While the task is particularly suggested by the quest for women and minority-group members, and might reasonably be expected to concentrate on that quest, it obviously would not be altogether confined to it. The task might be assigned to the search committee, or might with less embarrassment be assigned to someone else. It would materially increase the faculty time devoted to each new tenure position of this category, but the gain might be worth that cost. (Some departments may have continued following the old procedure of looking over the entire field of obviously possible appointees to a tenure position, considering each one's desirability independently of likely availability, and being sure that possible appointees ranking high on the list are not overlooked because of a too easy assumption they would not be interested. The requirement that positions be advertised and applications invited may lead to some decay of the positive values of the old procedure, in that some of the best possible appointees might never apply on their own yet might be persuaded to be interested. What we are proposing here is that some of the best aspects of old procedures and new procedures should be brought together, as they perhaps already are to some extent.)

Equally important might be a longer-range effort by the department to identify women and minority-group members who might be suitable for future tenured appointment and who might be sent directly any pertinent job notice. The several information-gathering devices proposed in Section A above could be useful in identifying such persons.

Tenured appointments should not be decided on except after very careful consideration of their implications for possible future tenured appointments either from within or from outside. In some disciplines there seems to have been a great increase in recent years in the number of outstanding women entering the discipline or developing rapidly into important contributors to it. This is part of the reason some departments now have a number of women as junior faculty members; it is also partly a consequence of the fact that Yale and other intellectually stimulating universities have offered increased opportunities to women. To the extent that minority groups have undergone a similar change at Yale and other universities, or do so in the years immediately ahead, they too will be in a position where the most

promising eventual candidates for tenure appointments are in the junior faculty ranks and not yet ready for a tenured appointment. The most effective way in the long run to increase the representation of these groups in the tenured faculty may be by ensuring the availability of tenured positions several years from now, through judicious restraint in making tenured appointments in the immediate future and through the development of possibilities for more numerous tenured appointments (or at the very least, prevention of reduction in their number) some years from now.

To be specific: A tenured appointment made right now in some departments is almost certain to be a man, and not a minority group member. A tenured appointment made in the same department several years from now has perhaps a 30% or 40% chance of being a woman; and the probability of its being a minority-group member will also, we hope, increase. Thus delay of tenure appointments is likely in itself to make a very substantial contribution to affirmative-action goals; like other devices for contributing to those goals, it could of course be very detrimental to the university's interests if too rigidly applied.

C. Term appointments

Present procedures for inviting applications for term appointments can hardly miss possible candidates who are looking for term appointments and who would without special persuasion consider applying to Yale. All announcements -- both advertisements and letters -- mention the department's interest in applications from women and minority-group members. If qualified people in these categories fail to apply because they feel they would not really be at home at Yale, then there is opportunity for improvement -- perhaps by persuading them they would be more at home than they suppose, certainly in the long run also by making minority-group faculty members more at home, so that Yale's reputation gradually changes.

The aspect of the Yale environment that seems most pertinent is its providing intellectual stimulation and reward; intelligent and active students and colleagues, libraries and laboratories, and other features of an atmosphere favoring excellent scholarly work, are what will, more than anything else, make Yale a desirable place for scholars who are women and minority-group members, just as for scholars who are not. The way to make all the best scholars at home is first of all to continue the high standards of excellence responsible for this environment in which they can work effectively. But secondly, Yale must be, and be known to be, a place where the opportunities of such an environment are open to scholars equally regardless of sex, race, or ethnic or religious background. The present low proportion of women and minorities in the tenured faculty, whatever its historical sources, is likely to create doubts about this equal openness. Continued pursuit of an affirmative-action policy should gradually produce changes which will eliminate such doubts and will make excellent scholars of all sorts feel more at home.

We are struck by some very real dangers in the affirmative-action policy, perhaps especially pertinent to term appointments. One is the danger that it could be applied in such a way as to make women and minority-group members feel that they have been appointed only by relaxation of usual standards of

excellence, and to make their colleagues view them in this light. In such a situation, it would be hard for the women or minority-group members of the faculty to feel at home and to do their most effective work. In several departments, recent term appointments of women have by now been fairly numerous and illustrate clearly that in their fields an equal consideration of all candidates by uniform standards now leads automatically to appointment of a considerable number of women. It also suggests that this procedure will lead within a few years to a sizable increase in the number of tenured appointments of women, again with no relaxation of standards. Thus the danger of creating a second class of faculty member can be avoided. We hope that enlargement of representation of other groups in the faculty can likewise be achieved without relaxation of standards.

A second danger is the possible arousal of unrealistic expectations which are then disappointed. This risk seems to arise especially in attempting to persuade persons to apply who would not have done so without special encouragement. Efforts to do more than ensure the wide diffusion of information about openings, efforts directed at soliciting applications from specific individuals, may always be taken as special encouragement; and if the practice is widespread, it is bound to lead to much futile work and hope in many applicants. The frustrations and ultimate disappointment might do much to nullify the otherwise favorable effects of gradual improvement in actual conditions here. On the whole, therefore, we are inclined to suggest that the university's affirmative-action message be carried by advertising and letters to departments (with attention to phrasing, as suggested in item 5 in section IIA above) rather than by recruitment directed at individuals.

A third danger lies in the possibility that an affirmative-action policy might be administered in a way that makes it in turn unjustly discriminatory against groups which are not the current object of special attention. There are several bad consequences which could follow:

- (1) The injustice and waste of human resources if highly qualified scholars are unable to find positions at Yale and similar institutions, whereas those with substantially poorer qualifications are able to, because of differential temporary demand for their particular social background.
- (2) The erosion of the university's prestige and financial standing through the backlash from people who strongly feel the injustice of reverse discrimination, and perhaps of continued passive discrimination against other minorities which may always have been poorly represented on the faculty.
- (3) The questionable moral position of the University if it complies with Federal guidelines in ways that involve acts of injustices justifiable only by the money the University receives from the Federal government.
- (4) The very real threat to the excellence of the University in the use of any criteria for the selection of faculty other than their past, present, and future quality and contribution to the University's major mission.

This danger of reverse discrimination is so great, it seems to us, that the policy of affirmative action should be concentrated on systematic efforts at extending the search to all possible candidates and at ensuring the genuine application of criteria of excellence alone; it should not lead to modifying the criteria by which selection is made when the search is over.

III. GRADUATE EDUCATION AND AFFIRMATIVE ACTION

Departments differ in the ways in which their programs of graduate education are related to faculty appointments. Some departments view their own graduate student body as a normal part of the pool from which junior faculty appointments are made; for them, an increase in the enrollment of women and minority-group members brings an increase in the proportion of these groups present in the pool for possible faculty appointments. Some departments, on the other hand, feel that the interests of students and department are both better served by having a fairly strong custom of not appointing new Ph.D.s from Yale to regular junior faculty appointments here. In all departments, however, increased enrollment of women and minority-group members in their graduate programs is a desirable part of a nation-wide movement in which Yale is participating, and is an important goal for that reason. Indeed, for disciplines where there are at present no qualified women or minority members available for possible faculty appointment here, this may be the only effective step a department can take immediately to increase the possibility of such appointments some years from now.

A. Recruitment of applicants for admission to graduate study

We have not reviewed material sent out by the Graduate School in response to inquiries, but assume that it includes suitable statements about Yale's interest in enrolling students of varied backgrounds. We note with great approval that the material sent out by the Graduate School mentions the fact that some applicants will be able to obtain a waiver of application fees; this seems to us an important positive step toward affirmative-action goals, as well as toward reducing discrimination on economic grounds alone, and we hope it will be continued.

Several departments have brochures describing opportunities for graduate work; these are commonly sent out each year to a mailing list of undergraduate departments in the discipline, and are also sent out in response to individual inquiries. Relevant portions of the content of these brochures should, of course, be guided by affirmative-action goals. In one department's brochure, for example, sex of students is not mentioned, in the belief that in these days that may be the most convincing way to indicate a policy of treating the sexes alike. Believing that explicit statement might be useful in encouraging minority-group applications, yet not wishing to arouse unrealistic hopes, the same department has included in recent editions the following statement about minorities:

Because of the emphasis on close contact with faculty members in research, as well as effective student participation in small class groups, only about twenty new students can be admitted each year. The Psychology Department is

eager to receive applications from well-qualified minority-group members and has had an increasing number of students from minority groups entolled here in recent years. Applicants should be realistically aware, however, that the total number of applicants is many times larger than the number that can be admitted, so the competition is very keen.

Apart from informal communication with colleagues and students at various universities, the devices just mentioned are the main features of the recruitment process. Discussion of them brought out the following suggestions for future policy, in addition to continuation of present devices:

(1) The mailing list for departmental brochures should be reviewed periodically for possible omissions relevant to affirmative-action goals. Dean Bunselmeyer of the Graduate School recently sent to departments the names of colleges likely to have an especially large proportion of minority-group students, and this made possible appropriate additions to departmental mailing lists. If Graduate School personnel can find the time, perhaps it would be useful for them to ask all large Yale departments to send them their brochure mailing lists for review - surely not every year but perhaps at longer intervals. This would make possible a centralized checking that could result in suggested additions for each department.

(2) A department might find it useful to ask incoming students to comment on the brochure and other information received from the department and from the Graduate School, to obtain their impressions of probable impact on possibility of application by minority members and by women.

(3) Special steps might be taken by a department, in more active recruitment of categories of students under-represented in its discipline. Visits to appropriate undergraduate departments, by faculty members or by minority-group graduate students already here, are among the techniques reported to be used by some departments at other universities which are rumored to have as a result unusually large representation of minority groups among their graduate students. For Yale, with the small total number of graduate students entering a department in any one year, this seems generally a very expensive way to produce at best a minute change. In particular disciplines, however, feasible specific opportunities of this sort might arise if department members are alert to the possibility. As we noted in discussing recruitment of faculty members, caution is needed about exactly what expectations are aroused, and how strongly, since for graduate admissions as well as for faculty appointments most applications inevitably have to be rejected.

B. Decisions on admission to graduate study

At any one university, this decision point may not have the obvious importance that it has nationwide. To the extent the lack of women and minority faculty members in a discipline is due to the low proportion in which they are present in the appropriate pool from which appointments are to be made, the key to change rests first of all in increasing the proportion of women and minority members entering upon training in the

particular discipline. A single university, however, makes only a small contribution to the total pool, and one set of graduate students give way to another much faster than is true of the faculty. It may be easy, therefore, for individuals to overlook or forget the broad social significance of the decisions they are making. Present practices and possible changes vary greatly among departments. Following are some suggestions that seem pertinent. Some merely state the pertinence and desirability of what is already uniform practice, and some would represent change for at least some departments.

(1) A small number of applicants for admission to a department are likely to be very obviously highly qualified and easily agreed upon by almost everyone. On a large number, too, rejection may easily be agreed upon. But among an intermediate group of considerable number, choice is difficult and is subject to influence by a great variety of competing considerations. One useful step toward effective guarantee of equal opportunity of all groups would be to make the affirmative-action policy salient in the minds of all faculty members taking part in the decision process. One way of doing this is by having one of them (or perhaps separate individuals) delegated to keep special watch on the interests of women and minority groups. Other faculty members' awareness that their decisions were going to be reviewed, and possibly disputed, from the point of view of fairness to these groups, should do much to insure the salience of that consideration at all times. It might help insure, for example, that recommendations by teachers known to Yale faculty members are not too exclusively relied on (despite their obviously special value), since minority applicants are especially likely to have no such teachers available to write recommendations for them. This device has been used with some success by at least one department.

(2) Similar reasoning should argue, too, that no department should allow decisions on admission to be made entirely, or even principally, by one faculty member. This should not be considered a part of the role of Director of Graduate Studies or Chairman of Admissions Committee. The difficult choices that must be made are subject to so many influences from competing criteria, that it is not reasonable to expect any individual to attain exactly the balance that the department as a whole would. In a large department, equal participation by all members is not likely to be feasible or justified, but the importance of the admissions process clearly calls for full participation by several faculty members.

(3) As we have argued in the case of faculty appointments, enlargement of the group of approximately equally well qualified candidates increases the chances that a representative of a small minority will be found in the group. Affirmative-action goals therefore make it desirable that, so far as possible, applicants for a department be considered as a whole. In at least one social-science department it has been customary to consider separately applicants classified in several sub-disciplines. The important considerations which lead in this direction need to be balanced against those which would lead in the opposite direction, and affirmative-action goals are important among the latter. There are reasons for this in addition to the one we have already stated. Consideration as a single pool of all applicants for a department should tend to increase the number of faculty members actually considering any given application, so that the

argument of point (2) above applies. Minority-group applicants seem especially likely, too, to express interests not clearly classifiable in relation to the way a Yale department sub-divides its discipline; thus a minority student of high promise on general grounds, who has come from an unspecialized undergraduate program, when considered by a sub-discipline might not be recognized as the high-grade future specialist that he could become.

C. Morale of graduate students

Minority-group members seem more likely than others to suffer doubts and conflicts about carrying their graduate work through to completion. (While our sample is very small for drawing conclusions, recent experience suggests that this is a real problem.) Improvement of counseling opportunities might help. More important, perhaps, is the general setting; if minority-group members felt more at home in the university and community, they might more easily maintain the momentum of their career progress. Possible solutions here may go beyond the department to the university generally.

D. Special opportunities in graduate training

Some applicants for admission look extremely promising but are lacking in some specific kind of background that seems essential. In several social-science departments, for instance, candidates may present themselves without adequate mathematical background. In any department, an occasional applicant has recently decided to enter graduate study with almost no undergraduate background in the discipline, and seems extremely well qualified in other respects. A few applicants may have had previous training which was generally adequate to permit presenting a strong case for admission, and yet be severely lacking in writing ability. Where deficiencies of these various sorts are identified and are considered serious enough, the applicant may be rejected in favor of someone with better rounded training. When, instead, the applicant is admitted, he may enter upon normal graduate work with a handicap he can never take time to remedy, and whose cumulative effects may get more severe year by year.

It seems likely that specific deficiencies of background will be most often found in minority-group members. They might be countered by special training at the outset of graduate study, delaying normal progress somewhat to improve eventual attainment and make more likely completion of work for the Ph.D. A promising economics student with inadequate mathematical background might, for example, spend half his time for two years learning mathematics, along with taking economics courses chosen as the least demanding of mathematical thought, before proceeding to what might for better-trained students be the basic first-year courses. This would be possible, generally, only if support could be provided for one more than the normal years of graduate study. The investment might be very fruitful. For maximum effect, it would probably need to be accompanied by some special guidance of the students by a member of their own department, to help keep alive the vision of relevance to their intended discipline in the undergraduate work they are doing in another department.

We have heard that the Stanford University Department of Economics has been especially successful in attracting and keeping good graduate students from minority groups, and that the device we have just suggested is an important element contributing to its success.

E. Special training for potential graduate students

We discussed the possibility of a summer or year-long institute for potential graduate students from minority groups, perhaps in the social sciences generally, perhaps in one or two departments. If any faculty members are willing to take the great deal of time necessary for such a project, and the financing can be found from outside, it could be a valuable undertaking. Caution was expressed, however, about whether such an institute is a likely way of developing the commitment to hard work in a discipline necessary for graduate study. For students already committed to a discipline, support for an extra year in graduate school, as proposed in the previous section, seems a more fruitful way of using limited resources. It could more easily be directed at filling gaps in a person's repertoire of information and skills, and would be devoted to persons already planning to work toward the Ph.D. and accepted into a Yale Ph.D. program.

January 21, 1976

Dr. Kingman Brewster, Jr.
Office of the President
Yale University
New Haven, Connecticut 06520

Dear Kingman:

Here is the report of the Committee on Affirmative Action for the Division of Biological Sciences. The committee was composed of the following individuals: Clement L. Markert, Chairman, Marilyn Farquhar, Richard Miller, Carolyn Slayman, and Dieter Soll. We met at irregular intervals during the fall term and discussed all aspects of the problems of affirmative action at Yale. In your letter to me, you posed four particular questions and we can perhaps best organize our report to you around these four questions.

- 1) What is the nature of the pool for potential junior and senior appointments? Now? In the next five years?

We examined the data related to pool sizes from a variety of studies, most of which were made available to us through the office of Associate Provost Mintz. The data prove that the pool sizes for junior and senior women are very different. Moreover the pool sizes for minorities--blacks, chicanos, and Indians--are all very small and quite different from those for women. In fact, the problems of affirmative action with reference to women are different in kind from the recruitment problems posed by several minority groups. We conclude that for women (excluding minority women) the pool of potential junior appointees in the biological sciences is sufficiently large and of sufficiently high quality that every department in the biological sciences can be expected to redress any imbalance that may exist between the sexes at the junior level. This means that for the next few years an unusually large number of junior women must be appointed in several departments. We believe that the distribution of men and women on the faculty should be approximately the same as in the student body. Thus, our junior faculty in the near future should

be composed of approximately 30 per cent women. We are convinced that the junior women candidates are available; it only remains for the departments to exercise the necessary initiative in discovering and recruiting them.

For senior women the situation is very different. Because of the small number of junior appointments in previous years at this university and at others, the pool of available senior faculty is quite small. We have no strategy for recruiting more than our fair share. All departments should be encouraged to seek out senior women for consideration for appointment, but in our view success can only be modest at best. We are not much disturbed by this prospect because with vigorous recruitment of junior women the imbalance at the senior level will be rectified within a few years, and that should be satisfactory.

Like the pool sizes for senior women, the pool sizes for certain minority groups, blacks, chicanos, and Indians, are all exceedingly small and this is so because of deficient training in past years. Other minority groups such as those of oriental descent are well represented and pose no problems of affirmative action. Recruitment of senior faculty from the under-represented minority groups cannot be very successful. The number of candidates is simply too small. Although minority candidates for the junior ranks are steadily increasing in number, competition for their services is very intense and Yale can succeed only if it devises means to get more than its fair share of these potential faculty members. We have no specific strategies to suggest other than to make departments aware that recruitment of minority faculty will substantially strengthen Yale as a University and enable it to better fulfill its academic mission. Substantial and secure advances in the recruitment of minority faculty will only occur when the pool sizes have been substantially enlarged by recruitment of minorities into programs of graduate training. We must accept, regretfully, a long lag time for recruiting minority faculty. The time cannot be shortened or realistically circumvented. Only increased training at the graduate level will alleviate this problem.

- 2) At the level of entry into graduate training, what concrete steps should departments take to enlarge that pool?

The committee believes that success at this level is vital to future success in faculty recruitment. We believe that much improvement can be made in our present performance. We suggest the following specific measures:

Dr. Kingman Brewster, Jr.

January 21, 1976.

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a) A program of visiting faculty fellowships for teachers at black colleges to attend Yale for periods of a term or two should be established. We know that fellowship support is now available from the Danforth Foundation and from the National Institutes of Health to support such fellowships for faculty from minority schools. Departments can be required to cooperate in making such a program successful. Faculty that have held such fellowships, on returning to their home institutions, will serve to make known to their students the possibilities for graduate training at Yale. There is no better way to present our case to those colleges. However we should, in addition, encourage our own faculty to visit and lecture at black colleges in order to advertise opportunities at Yale. We should not neglect the possibility of recruiting better trained black and other minority students from state universities but the competition for these students is intense and we can only expect to get our fair share. Our graduate school should continue to make special fellowship support available to minority graduate students who meet minimum department requirements.

b) Minority students commonly experience difficulty in securing admission to the Yale Graduate School and even if admitted commonly find their preparation inadequate. One way to recruit minority students for graduate studies and to increase their potential for success lies in the development of summer programs. These provide additional training and also expose potential graduate students to opportunities at Yale. Such programs have already been carried out on a small scale and we recommend their substantial enlargement. These programs are not very costly and external funds can frequently be found to support them. Such programs provide needed remedial education and at the same time allow us to screen and recruit potential candidates.

c) We recommend that an additional administrative appointment be made of a person who shall have responsibility for discovering and coordinating programs of fellowship support for minority faculty and students, principally blacks but also chicanos. Oriental students are not under-represented and Indian students are so small in number as not to present a significant pool of candidates; of course, we should be alert to every opportunity for recruiting students of Indian ancestry. Again your committee believes that the potential pool of graduate students from under-represented minorities is sufficiently large that a substantial number can be recruited for training at Yale. Enthusiastic and determined efforts may be required of departments if they are to succeed in this recruitment. We hope the administration can devise ways of rewarding departments for good performance.

- 3) What means tried by departments have been effective for identifying and recruiting minority group or women scholars? Do they share characteristics that could be incorporated into divisional guidelines?

We have no special comment to make on this question. Our present search procedure should prove adequate for identifying minority group and women scholars. The problems are in recruitment and not in identification.

- 4) How best can we ensure effective continuing faculty commitment to, and participation in, affirmative action?

Your committee believes that success at each level will provide positive reinforcement for success at other levels. Every woman recruited to the faculty and every minority representative among the student body or on the faculty will make further progress so much easier. The Administration of the university can be most effective by keeping the goals of affirmative action continuously before the faculty. As the composition of the faculty gradually changes, less input will be required from the Administration. Nevertheless, for some time to come, it will be necessary for the Administration to make clear its active concern. The Administration should authorize new appointments in departments in ways that will stimulate and reinforce department efforts at fulfilling the goals of affirmative action.

As a practical contribution, the members of your committee have individually assumed the responsibility of discussing programs and policies of affirmative action with each department in the biological sciences. We hope to make clear to each department the goals of affirmative action, the expectations of the university Administration and of our society at large, and to encourage departments to take those practical steps in recruiting students and faculty that will improve the composition of the university community.

For the committee,



Clement L. Markert, Chairman

APR 2 1976

Affirmative Action in the Humanities:
A Report to the President and Provost

I. The Committee: Formation and Focus

Pursuant to President Brewster's letter of May 13, 1975, the chairman, after consultation with the Provost, decided the committee should study only four departments in the Division of the Humanities rather than the whole division. That focus, which reduced the problems of gathering data to manageable size, also determined in large part the membership of the committee. Its members were selected from the departments to be examined and in order to assure representation on the committee of both tenured and non-tenured faculty, of women as well as men, and of at least one minority group. In gathering and interpreting data, the committee received valuable assistance from Ms. Frances A. Holloway of the Office of the Associate Provost.

The four departments were chosen because they are all of exceptional strength, and because they represent the pattern that characterized the division: two of the departments, English and French, are concerned with language and literature; two, History and the History of Art are not. Two of the departments, English and History, are large; the other two are of medium size. No small department was scrutinized because small departments have idiosyncratic recruitment problems peculiar less to their discipline than to their size.

II. The Pool: Definition and Characteristics

Before attempting to gather data, the committee tried to define the

actual pool from which the four Yale departments will be recruiting for the next two quinquennia. That is not the whole national pool. There are in any case no accurate figures for a national pool. The learned associations do not now have figures--categorized by sex and minority groups--about the numbers of graduate students and/or non-tenured faculty in the United States. More important, those figures would not speak to Yale's needs. The Yale faculty is committed, as the committee agrees it should be, to the particular requirements of a university college. Those requirements call for the appointment and advancement only of scholars with the ability, demonstrated or potential, to perform well as teachers, to act effectively as members of the academic community, and to become important contributors to their scholarly profession. Graduate students with the qualities to meet those criteria have ordinarily sought their training in the best departments in their field. Lesser departments, less well-staffed, rarely train young men and women who can qualify for appointments at Yale. So, too, the eminent departments in each field of the humanities not only attract the outstanding graduate students but also employ the outstanding junior and senior faculties. That condition has marked the academic enterprise for at least two generations. It reflects a specialization of function that leaves to about a dozen institutions the major task of training and encouraging scholarship in the humanities.

As one of those institutions, Yale has not recruited its faculty from a full national pool. Such a pool includes individuals whose futures usually lie in small colleges where teaching is emphasized at the expense of original scholarship, or in some institutions that can not afford to sustain the highest quality of instruction. Yale tends to recruit primarily from

a pool supplied by institutions of an outlook and distinction similar to its own. There are, of course, strong candidates trained at a much larger number of universities, but those candidates are fewer and harder to judge with confidence. They tend to be neglected unless they have conspicuous sponsors.

The committee consulted, therefore, the chairmen of the four Yale departments specified and obtained a list in each field of the dozen universities from which the Yale department has usually recruited faculty in recent years and from which it might expect to continue to seek candidates in the future. Each set of a dozen departments (see Appendix B) identified by the related Yale department constitutes, along with that Yale department, the source of the real pool from which Yale will be recruiting, with exceptions, to be sure, but not so many exceptions as to damage the representativeness of this sample.

The chairman of the committee wrote letters (example in Appendix A) to the chairmen of the four Yale departments and the dozen other departments that had been selected in each field. Each letter asked for information about three groups: graduate students not yet writing dissertations; graduate students writing dissertations; and assistant professors as well as non-tenured lecturers and associate professors. For each group, figures were requested for the total number, the number of women, and the number of members of minority groups (see Appendix B). The aggregate pool of faculty for each field, in the committee's view, consists first of those now assistant professors, along with a few more advanced students. That group contains the scholars, obviously with some exceptions, each de-

partment might consider for tenure appointments during the period 1977-1982. The less advanced individuals within the pool are those a department might consider for junior appointments in the same period, and they form a considerable part of the group that will be considered for tenure appointments in the following five years (1982-1987).

III. The Data: Nature and Interpretation

As the tabulations in Appendix B reveal, the committee received replies from about 70 per cent of the departments solicited. That volume of response seemed to the committee and to the Provost, who was again consulted, to constitute a sufficiently significant sample for the purposes of the analysis in this report. Further inquiries, moreover, were unlikely to yield more data, and almost certain to irritate chairmen already harrassed by countless surveys.

In soliciting and tabulating its data, the committee made no effort to differentiate sub-fields within a general field. A request for differentiated information that was circulated several years ago yielded a disappointing response, partly because it asked for more data than its recipients had the time or inclination to furnish, partly because definitions of sub-fields vary in some measure from department to department. More important, the data that the committee accumulated serves its purpose--the provision of a salient statistical sample that indicates the probable availability of women and minority candidates for the four Yale departments in the coming ten years. Those probabilities permit the committee to proceed toward the recommendations the President requested.

The data tabulated in Appendix B lead to the following conclusions:

1. For all four departments except History, there exists a substantial pool of women candidates for senior and junior appointments in both quinquennia, a pool that is growing. The pool of women is also substantial for junior appointments in History during the earlier quinquennium and for senior appointments thereafter. (As the committee sees it, History differs from the other three departments in being closer than are the others to the social sciences, which have been attracting fewer women graduate students than have the humanities). The size of the women's pool probably falls somewhat below the percentages the tables reveal. Some women will be willing to come to Yale only if their husbands can find employment in the area; others may be in training for museum, archival or other non-instructional occupations. Still, those considerations also apply to many men. Overall, then, the pool of women candidates in the four fields, is sufficiently large to suggest that, on the basis of statistical probability only, Yale appointments in the fields examined will run close to one-quarter to one-third women during the next five years and the five years thereafter. (The committee wishes to emphasize that the foregoing statement constitutes neither a recommendation nor a prediction, but an analysis of a statistical sample).

2. The pool of minority candidates in all fields and for both quinquennia is lamentably small, between five and ten per cent. Further, those figures are distorted. The committee employed H.E.W. criteria in collecting data, and therefore included Asian-Americans within the definition of minority. The office of the Associate Provost suggests that Asian-Americans constitute a considerable fraction of those included in the tabulations. But Yale, without in the least wishing to limit or exclude Asian-American candidates, has stressed the need to recruit blacks

and Hispanic-Americans. The latter two groups probably make up no more than three to eight per cent of the total pool. Again, then, on the basis of statistical probability only, Yale will find it difficult to recruit a significant number of blacks or Hispanic-Americans for any of the four departments during either of the next two quinquennia. Further, the competition for the few candidates available is bound to be fierce, and many of them may prefer to find employment in communities larger and more cosmopolitan than is New Haven.

IV. Recommendations

The committee's recommendations seek at once to sustain the high quality of the four departments and to achieve an increasing and accelerating rate of appointments of women and minority candidates. The achievements to date, as reported in the Yale Weekly Bulletin and Calendar, December 15, 1975, fall short of what the committee thinks may be possible in the future. The present limitations may reflect no failure of effort by the four departments, nor any debilitating awkwardness in procedures, but rather the limited size of the present pool. That pool has begun to grow. Accordingly, the university should expect a substantial increase in the employment and advancement of women in the ranks of the four departments.

The committee resists any thought of departing from traditional standards of excellence. Those standards should be interpreted flexibly, but they must be applied uniformly. And yet, for reasons elaborated more than ten years ago in the Dahl Report, the quality of scholarship must continue to be a weighty factor, along with the qualities of teaching and citizenship, in the evaluation of candidates for any position on the faculty.

But the quality of published scholarship is more important than the quantity of that scholarship. Strong departments, like those examined, can afford and should endeavor to appoint young scholars, even to tenure positions, who have not yet had time to achieve identification nationally or internationally as the very best in their field. It is sufficient and essential to take pains to identify those who have revealed in their publications strong potentialities for becoming the best, or at least for achieving a level of excellence of which their colleagues can be proud. Such a policy is vital if women and minority candidates are to gain tenure, for most who are approaching that stage are and will for some time continue to be relatively young. So, too, in the appointment of non-tenure faculty, effective affirmative action, as well as the intellectual well-being of the university, depend upon stressing the quality of scholarship more than the quantity, with a continuing concern, of course, for teaching and citizenship. The recruitment of assistant professors should provide the surest route to the appointment to tenure positions, and the pool of women eligible for consideration as assistant professors is growing rapidly.

To increase the probabilities for the appointment of women and minority candidates to tenure positions during the period 1982-1987, the committee recommends a continuing, extensive, vigorous search for qualified candidates from those groups for non-tenure appointments during 1977-1982.

For appointments to tenure positions during the period 1977-1982, the committee recommends no concessions to the maintenance of excellence as described in the foregoing paragraphs. But the committee has more to say about affirmative action in that time span:

The committee received a proposal suggesting that, when a resignation, retirement or death opened a tenure vacancy, the administration might "compensate" a department if that department appointed a woman or a minority candidate to the vacancy without regard to the sub-field opened. "Compensation" would take the form of an incremental assistant professorship for the sub-field. The committee does not recommend a universal application of that practice.

Still, in order to make up for a long period of neglect, and in order to give women and minority members the comfort of being more than isolated cases in their departments or divisions, the university should, to the limit of its resources, permit incremental tenure appointments when extraordinary candidates from those groups become available in fields where current needs and perhaps openings do not exist. The word "extraordinary" deserves full emphasis, but it should be construed as describing promise and potentiality as well as reputation or full achievement.

That policy, already enunciated by the Administration, would receive stronger implementation, the committee believes, if department chairmen were reminded more often and more forcefully of the opportunities the policy offers and of the importance of the policy itself. The committee recommends special emphasis on the following paragraph in the existing statement about affirmative action at Yale:

Budgetary Support for Senior Appointments

In order to permit a department to make the appointment of women or minority group members when its budget may not wholly cover such an appointment, the Office of the Provost is prepared to supplement the department's resources. Such assistance may be extended to permit a department to make an appointment either at the senior level by augmenting the funds

available from the conversion of a junior position or at the junior level, in cases of unusual quality, even when the candidate does not meet the current sub-field priorities of the department. This provision, approved by the Corporation in 1972, is still in effect, and is intended to encourage departments to appoint to their faculty women or minority group members, especially at the senior level, even if the sub-field priorities of a department would not result in an appointment in that area at that time, or if such an appointment would create a temporary overlap in sub-field coverage.

As the committee sees it, though compensatory efforts should be significant, opportunities for affirmative action in tenure appointments lie primarily in the continued cultivation of existing procedures and within the authority of the Provost to allow departments time to fill vacated line positions. During the next five years financial constraints will doubtless inhibit even the replacement of tenured faculty who depart. Consequently the university must exercise every precaution to assure that each tenure appointment has gone through an exacting review to assure that no feasible woman or minority candidate has been overlooked. The statistical tabulations demonstrate that there will often be a substantial number of women who merit consideration. Indeed the statistics suggest that, for the four departments or for the division as a whole, a failure to direct at least a substantial proportion--perhaps a quarter or a third--of tenure appointments to women during the next quinquennium (1977-1982) would imply that careful search procedures have been ignored, or that too little attention has been given to promise and too much to fame. This is not to say that the university should establish precise quotas. For reasons already discussed, the same observations apply to non-tenure appointments.

Affirmative action also depends upon the policies of the Provost. If

departments can retain a line position only by filling it quickly (for example, within a year or two), then the pressure on the departments to locate qualified candidates will operate to the particular disadvantage of women, for although they are making-up a larger and larger part of the pool, they are still relatively close to the start of their academic careers. Accordingly the committee recommends that the Provost, whenever possible, hold a vacated tenure position for a department for up to five years. That policy would allow time for non-tenured faculty, men and women alike, to demonstrate their capacities, and permit chairmen to search longer for distinguished candidates still emerging at other outstanding universities. Of course in the case of some sub-fields a department may not be able judiciously to wait five years, but ordinarily there should be less need for speed.

While the foregoing recommendations should, in the opinion of the committee, support a successful program of affirmative action for women, they will not much improve the past rate of recruitment and advancement of minority candidates. That slow pace doubtless derives partly from the current conditions of the academic world; beset as it is with financial blight, small chance for growth, and endemic unemployment, particularly among humanists. Those conditions must dampen the interests of black and Hispanic-Americans in entering an academic career. There is therefore an urgent need for new, persuasive inducements to attract blacks and Hispanic-Americans to graduate work in the humanities. The urgency arises in large part from the decision of the Ford Foundation to cease its support for minority graduate students, support that currently sustains 50 per cent of them in the United States and 40 per cent at Yale. The reckless indifference of the federal government to training grants for humanistic scholarship intensifies the problem.

at just the time that H.E.W. demands that universities hire minority candidates in numbers beyond those available.

On those accounts, the committee recommends that Yale take the lead in establishing a new program, directed to black and Hispanic-Americans, and modelled roughly on the Carnegie Teaching Fellowships of a decade ago. Such a program should attempt to identify able minority students still in college, and to offer them a generous two-to-three year fellowship to permit them to sample the training and the life of the scholar-teacher. Support should be sufficient to permit them to move into professional education if they decide against an academic career. The program, like the Carnegie Teaching Program, would require a combination of enrollment in graduate seminars and supervised teaching in college courses. It would have to be sufficiently rigorous to provide an honest test of the tribulations of scholarship and the demands of teaching. In the committee's judgment, such a program would benefit if several institutions were to join Yale in organizing it, operating it, and soliciting funds to finance it. The need now is to reach a larger potential constituency by far than that in Yale College, and to encourage minority students to test the academic life by offering them a variety of environments rather than Yale's alone. Yet a joint venture should include at the outset only institutions distinguished, as Yale is, by their strength in the humanities, and characterized, on the basis of past experience, by a capacity for unselfish cooperation. Those criteria point most directly to Princeton and Stanford.*

*The committee believes that public universities would find it difficult, if not impossible, to join the program, and the law governing discrimination in grants and admissions may raise complex legal problems even for private institutions. Yale should probably explore those questions.

Expansion of the pool of minority candidates, even if successful, will not affect statistical probabilities during the next five years. The committee is therefore especially concerned about assisting the few minority students now in graduate school. Graduate education, at its best a lone-some experience marked by uncertainties, can be particularly formidable for minority students who ordinarily have no counsellor who can fully recognize the intensity of their problems. Most graduate students probably need better counselling than they receive, but minority students need it most. The committee therefore recommends that the Dean of the Graduate School employ counsellors from minority groups as soon as possible to assist minority students in achieving a better adjustment to their programs, and thereby to reduce the current rate of attrition among minority students seeking the Ph.D. in the fields of the humanities.

The committee also recommends that Yale, preferably in company with other, similar institutions, seek funds to finance post-doctoral fellowships of two or three years duration for members of minority groups. Those fellowships are needed especially by those who have received the Ph.D. from less than excellent universities and by those burdened by the heavy teaching assignments characteristic of so many small colleges. Post-doctoral work, directed alike to teaching and to scholarship at universities with Yale's strength in the humanities, would enhance the preparation of minority candidates for teaching in similar institutions, and give those candidates the time to demonstrate by publication the strength of intelligence, learning and insight that might otherwise go unrecognized.

The committee is also persuaded that Yale departments lack the facili-

ties fully to identify outstanding minority students in graduate training. A program for post-doctoral fellows would remedy that deficiency in part. But chairmen are transients, who leave their posts almost before they can master their responsibilities, and the lack of continuity in the appointment process is matched by the idiosyncrasies of responses to advertisements for openings. A productive, continuing program of identification of talented minority students in training throughout the nation needs to be organized at the university level. At the least such a program would entail continuing communication between the office of the Provost and counterpart offices at institutions like Howard University and the University of Puerto Rico. The committee recommends that the Provost explore the possibilities of proceeding in that way, not in order to raid Howard or Puerto Rico of able graduate students, but in order to locate those graduate students with the potentialities for employment as non-tenured faculty at Yale, perhaps after further post-doctoral experience.

The committee has little confidence that the foregoing recommendations are adequate. They should assure a more successful program in the employment and advancement of women. But they can provide only a start toward the recruitment and training of more minority students in the humanities. In the absence of a start at least, two quinquennia will pass before Yale can expect to employ the men and women it needs to dispel the legitimate anxieties of minority students in the college, and to create a genuine openness of careers in the humanities to young Americans of talent.

John M. Blum, Chairman
Walter B. Cahn
Pedro Castillo
Elizabeth A. Davis
Beverly Livingston
Martin Price

OFFICE OF THE PROVOST

September 26, 1975

Mr. Myron Gilmore
Department of History
Harvard University
Cambridge, Massachusetts

Dear Myron:

At the request of the President and Provost of Yale University I am undertaking a survey, with the help of a faculty committee, of our recent affirmative actions in the humanities and of our prospects for affirmative action in the near future. On that account I am writing to only a few distinguished departments of English where the quality of instruction of graduate students, and the excellence of the students therefore attracted, are such that we at Yale and at similar institutions regularly turn to them for candidates for appointment here. I realize that this letter contains a request that will be a nuisance for you, but I hope that you in turn will recognize that I am imposing upon you because of our respect for what you and your colleagues are doing.

In conducting this survey I am not seeking the kind of data which will tell us precisely the nature of the pool of candidates for any particular appointment, for example in recent American poetry or English medieval art history. Rather, I am trying to find out the general nature of the pool of young scholars of high quality whom we might one day hope to attract to Yale.

I have therefore only three relatively simple questions to ask you to answer, and I hope that you will not find them too burdensome.

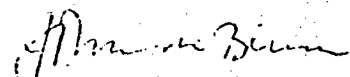
First, in the aggregate what is the number of Assistant Professors and others of similar rank (for example non-tenured Associate Professors or Lecturers or Instructors about to become Assistant Professors) in your department? How many of that number are women? How many are members of minority groups (blacks, American Indians, or descendants of Spanish-speaking or Asian American families)?

Second, in your department how many of your graduate students are now writing dissertations? Of that number, how many are women? How many are members of minority groups as defined above?

Third and last, how many of your graduate students as of this September are working at a stage preliminary to dissertation? How many of that number are women? How many are members of minority groups?

My colleagues and I, the President and Provost will be most appreciative indeed if you can answer these questions at your early convenience. Thank you very much.

Yours sincerely,


John M. Blum

SUMMARY

	LADDER FACULTY ON TERM APPOINTMENTS				STUDENTS CURRENTLY WRITING DISSERTATIONS				STUDENTS AT PRE-DISSERTATION STAGE			
	WOMEN		MINORITIES		WOMEN		MINORITIES		WOMEN		MINORITIES	
	#	%	#	%	#	%	#	%	#	%	#	%
ENGLISH	47	36.2	6	4.6	187	37.7	11	2.3	182	42.7	24	5.6
FRENCH	31	43.1	7	9.7	217	63.5	28	8.2	263	74.9	33	9.4
HISTORY	25	18.7	15	11.2	311	25.3	91	7.4	267	33.2	97	12.1
HISTORY OF ART	11	34.4	2	6.3	181	37.8	24	5.0	221	55.5	42	10.6
TOTAL	130		28		480		74		426		196	
	72		17		342		28		351		33	
	134		15		1231		91		805		97	
	32		2		479		24		398		42	

USH

	LADDER FACULTY ON TERM APPOINTMENTS				STUDENTS CURRENTLY WRITING DISSERTATIONS				STUDENTS AT PRE-DISSERTATION STAGE			
	TOTAL	WOMEN	MINORITY		TOTAL	WOMEN	MINORITY		TOTAL	WOMEN	MINORITY	
			(BLACK)	(HIS-panic)			(BLACK)	(HIS-panic)			(BLACK)	(HIS-panic)
Berkeley												
Harvard												
Chicago	12	4	0	(0)	90	42	3	(3)	79	39	5	(4)
Princeton	18	9	0	(0)	31	12	1	(?)	28	14	0	(0)
Columbia												
Stanford	5	0	2	(?)	33	16	2	(?)	41	12	12	(?)
Johns Hopkins	3	1	0	(0)	20	1	1	(1)	27	10	0	(0)
Cornell	14	7	1	(?)	28	9	2	(?)	31	11	2	(?)
Virginia	29	9	1	(1)	51	14	1	(1)	30	13	2	(2)
Wisconsin	9	3	1	(1)	120	50	0	(0)	78	35	2	(2)
UCLA												
Illinois												
Yale	40	14	1	(1)	107	37	1	(0)	112	48	1	(0)
TOTAL	130	47	6	(3)	480	181	11	(5)	426	182	24	(8)
% of Total		36.2	4.6			37.7	2.3			42.7	5.6	

FRENCH

	LADDER FACULTY ON TERM APPOINTMENTS			STUDENTS CURRENTLY WRITING DISSERTATIONS			STUDENTS AT PRE-DISSERTATION STAGE		
	TOTAL	WOMEN	MINORITY (BLACK) (HIS-panic)	TOTAL	WOMEN	MINORITY (BLACK) (HIS-panic)	TOTAL	WOMEN	MINORITY (BLACK) (HIS-panic)
Johns Hopkins									
NYU									
Princeton									
Columbia	9	6	0 (0)	34	23	1 (?)	68	53	7 (?)
Harvard	14	6	3 (?)	72	47	11 (?)	36	20	7 (?)
Duke	8	2	2 (2)	26	13	2 (0)	8	4	1 (0)
Stanford	3	0	0	24	16	1 (?)	11	7	0 (0)
UCLA	6	3	1 (1)	42	30	6 (1)	86	72	10 (6)
Wisconsin	4	3	1 (?)	47	30	3 (?)	44	32	3 (?)
Michigan	7	2	0 (0)	21	12	1 (0)	11	8	1 (1)
Chicago	5	2	0 (0)	13	6	0 (0)	22	21	0 (0)
Cornell	3	1	0 (0)	9	4	0 (0)	15	10	2 (?)
Yale	13	6	0 (0)	54	36	3 (?)	50	36	2 (?)
TOTAL	72	31	7 (1)	342	217	28 (1)	351	263	33 (7)
% of Total		43.1	9.7		63.5	8.2		74.9	9.4

HISTORY

	LADDER FACULTY ON TERM APPOINTMENTS				STUDENTS CURRENTLY WRITING DISSERTATIONS				STUDENTS AT PRE-DISSERTATION STAGE			
			MINORITY				MINORITY				MINORITY	
	TOTAL	WOMEN	TOTAL (BLACK)	(HIS- PANIC)	TOTAL	WOMEN	TOTAL (BLACK)	(HIS- PANIC)	TOTAL	WOMEN	TOTAL (BLACK)	(HIS- PANIC)
Princeton	19	4	2	(?)	41	14	12	(?)	36	17	3	(?)
Harvard	11	3	0	(0)	189	37	11	(3)	56	9	5	(2)
Columbia												
Stanford	11	3	3	(1)	106	25	10	(?)	31	15	5	(?)
Chicago	12	1	0	(0)	89	19	6	(?)	82	26	8	(?)
Cornell	11	0	0	(0)	25	12	4	(?)	31	8	2	(?)
Michigan	17	4	3	(?)	222	69	8	(?)	174	56	24	(?)
UCLA	8	2	2	(0)	235	50	30	(16)	250	97	46	(17)
Indiana	13	2	2	(1)	81	16	2	(1)	24	9	0	(0)
Johns Hopkins												
Virginia	13	3	1	(1)	103	23	3	(2)	77	18	1	(1)
Berkeley												
Yale	19	3	2	(1)	140	46	5	(?)	44	12	3	(?)
TOTAL	134	25	15	(7)	1231	311	91	(22)	805	267	97	(26)
% of TOTAL		18.7	11.2			25.3	7.4			33.2	12.1	

HISTORY OF ART

	LADDER FACULTY ON TERM APPOINTMENTS				STUDENTS CURRENTLY WRITING DISSERTATIONS				STUDENTS AT PRE-DISSERTATION STAGE			
			MINORITY				MINORITY				MINORITY	
	TOTAL	WOMEN	TOTAL (BLACK)	(HIS- PANIC)	TOTAL	WOMEN	TOTAL (BLACK)	(HIS- PANIC)	TOTAL	WOMEN	TOTAL (BLACK)	(HIS- PANIC)
Bryn Mawr	2	1	0	(0)	19	13	0	(0)	12	9	0	(0)
Berkeley	6	2	0	(0)	252	55	19	(?)	169	57	22	(?)
Columbia												
Harvard												
NYU												
Univ. of N.C.	5	2	1	(1)	20	10	0	(0)	5	4	0	(0)
Univ. of Penn.	5	1	0	(0)	31	18	1	(?)	14	6	2	(?)
Princeton												
Stanford	2	1	1	(0)	18	9	0	(0)	12	11	2	(0)
Chicago	5	1	0	(0)	35	18	3	(?)	38	26	6	(?)
Michigan	1	1	0	(0)	50	27	0	(0)	100	75	8	(3)
Yale	6	2	0	(0)	54	31	1	(0)	48	33	2	(1)
TOTAL	32	11	2	(1)	479	181	24	(0)	398	221	42	(4)
% of Total		34.4	6.3			37.8	5.0			55.5	10.6	

Yale University *New Haven, Connecticut*

5 March 1976

DEPARTMENT OF ASTRONOMY
WATSON ASTRONOMY CENTER
Box 2023 Yale Station
Tel: 436-3460, 436-3461
Area Code 203

President Kingman Brewster
Woodbridge Hall

Dear President Brewster:

At your request, a small committee consisting of faculty members in the Physical Sciences has examined the role of women and minorities in the departments comprising the Physical Sciences at Yale. Most of the work of this committee was completed under the excellent chairmanship of Professor George J. Schulz, until his tragic and untimely death at the beginning of the year. We wish to record our gratitude for his efforts towards the goals of this committee.

We believe that the sparse representation of women and minorities on the faculty in the Physical Sciences is largely due to their small numbers in the pool from which such faculty can be drawn. Accordingly, our suggestions for action are of two kinds. First, we recommend direct and immediate action to ensure that qualified women and minorities are not overlooked in search and selection procedures for faculty. Secondly, we recommend ways in which Yale can improve the future pool of such scientists by accelerating its admission of female and minority students, as undergraduates and graduates, and by endeavoring to employ more of these people in postdoctoral positions and as Gibbs Instructors; another suggestion for indirect action is to give maximum visibility to those women and minorities who are at Yale with responsible positions in the Physical Sciences, in order to provide needed role models for aspiring science students.

Our specific proposals are discussed in the enclosed report, and summarized in its final section.

We urgently hope that these proposals will be endorsed by yourself and the Provost, and that immediate steps will be taken to put them into effect.

Respectfully submitted,

E. Robert Beringer

E. Robert Beringer

Marshall Fixman *

Kathleen Sinkinson
Kathleen Sinkinson

Beatrice M. Tinsley
Beatrice M. Tinsley

* Notes to follow. *MA*

Yale University New Haven, Connecticut 06520

DEPARTMENT OF CHEMISTRY

Sterling Chemistry Laboratory
225 Prospect Street

22 March 1976

The President
Yale University

Dear Mr. Brewster:

Re Affirmative Action Report, Physical Sciences

In signing this report I feel obliged to inform you that my wife, Branka Laskanyi, has been and will be a candidate for a position at Yale. Therefore I have had a personal interest in the outcome of our deliberations.

Sincerely,

Marshall Fisman

REPORT ON AFFIRMATIVE ACTION IN THE PHYSICAL SCIENCES

Women and Minorities in the Physical Sciences

Women and minorities are sparsely represented in the Physical Sciences at Yale, as has been recently documented by the Provost and President in their "Statement of the University's Policies on the Recruitment and Appointment of Women and Minority Faculty and Staff", published in December, 1975. A brief summary by department in the physical sciences is attached (Table I); here it is seen that the representation of women and minorities is especially low at the faculty level, where 3 out of 179 members (1.7%) are women and none is black. We have considered the causes of this low representation, not only on the faculty but also down to the undergraduate level, where of course the future pool of faculty members is generated, and in the Report we present some suggestions for appropriate action.

The immediate reason for Yale having small numbers of women and minorities at each academic level is clearly their poor representation in the pool at lower levels. Because the fraction of women or minorities in any given field in the physical sciences is small, departments cannot readily appoint or admit such people in significant numbers. To document the small size of the pool for faculty appointments, Table II, attached, shows approximate percentages of Ph.D. degrees granted to women and minorities in the various disciplines comprising the physical sciences. Women constitute 9% of the pool in chemistry and 0.1% in engineering, with the remainder of the disciplines falling in between. Blacks constitute about 0.8% of the pool. The remainder of the identified minorities are an insignificant portion of the available pool, except for Asian-Americans

who constitute 11%.

The low numbers of women pursuing the physical sciences at the University level is confirmed by the undergraduate enrollment at Yale College: Whereas 12% of the men of the class of 1976 chose the physical sciences, only 2.9% of the women indicated the physical sciences as their major area of study.

We have addressed ourselves briefly to the question why so few women and minorities major in the physical sciences. To a large extent, this question is beyond the scope of our committee, having to do with the traditions of society, patterns of counselling in high school, earlier influences, and inequalities of opportunity that Yale can do nothing directly to rectify.

The roles that we believe Yale can play are (a) in encouraging more minorities and women to enter the physical sciences, by identifying talented members of these groups at all academic levels and attracting them to Yale when appropriate; and (b) in taking the fullest advantage of the available pool by presenting women and minorities with thoroughly unprejudiced opportunities at the faculty level.

We do not believe that any quick remedies can be prescribed for the present small representation of women and minorities. The available statistics show that their participation in some of the physical sciences is increasing very slowly; in Astronomy the percentage of women in the professional society in the United States is actually declining (from 17% in 1945 to 9% at present.) To the extent that these trends reflect the inertia of attitudes influencing people prior to their choice of careers, they warn that no dramatic changes can be expected at Yale in

the near future. Nevertheless, by concerned effort at the present time, Yale can help to remedy the effects of biases that have in the past discouraged talented minorities and women from pursuing a career in the physical sciences, and can add to the excellence and diversity of its own science departments by attracting members of those groups who are already highly qualified.

Undergraduate Students

The Admissions Office is undoubtedly aware, but should be continually reminded, that members of minorities and women in the physical sciences are a minority within a minority. Continuing efforts must be made to identify talented people and attract them to Yale. The number of gifted minority students in high schools who are interested in the physical sciences is very small, and many of the top schools compete for this small number of students. The Admissions Office, in cooperation with the School Committees, must convey to these students the unique advantages of Yale. The Admissions Advisory Committee should check periodically that all is done that can be done in this respect.

Once this type of student comes to Yale, his or her freshman advisor should be selected with care. The College Deans should assume responsibility for ensuring that no student is discouraged from pursuing the physical sciences merely because the field is relatively unusual at Yale and because there are few precedents of success by minorities or women. In this respect, students can be significantly encouraged by the presence of minorities and women who have "made it" into the higher levels of physical sciences, whether into graduate school or to the senior faculty, so it is

important that these people be made as visible as possible to undergraduates. We discuss this point further in the section on Faculty. Furthermore, it would be useful to designate minority and female faculty members and graduate students in the physical sciences as supplementary advisors to their counterparts among prospective science majors, in order to provide direct encouragement and help with specific problems that these students may encounter.

Graduate Students

There are at present 55 female graduate students in the physical sciences, comprising 18% of the total graduate student body. This number compares favorably with other schools such as MIT, although Table I (attached) shows that some departments have a percentage far below the 18% average. There are only five blacks (1.5%) and it is in the area of minority recruitment that the primary effort must take place.

A recruitment program for minority students is being actively pursued by the office of the Dean of the Graduate School. This program involves the identification of prospective graduate students, trips by Yale Graduate Deans to selected institutions, assistance in the application procedure, and special consideration for fellowship support. The recruitment of minority students by the individual departments is also encouraged.

The yield of minority students by means of this program has been very small in the physical sciences. One reason appears to be that talented minority students gravitate to law, medicine, social service and teaching, but there are indications that interest in the physical sciences is

slowly increasing.

We strongly encourage the continuation of the recruitment program for minorities because we hope that it will increase the number of minority graduate students in the long run.

We urge that a similar program be undertaken to recruit female graduate students in the physical sciences, especially in those disciplines showing poor representation in Table I. Every effort should be made to offer fellowship support to qualified women who might otherwise choose a different school that provides support. In the consideration of need for support, it should be noted that women, more often than men, bear extra expenses for child care or for commuting from a home near their spouse's place of employment.

The failure or dropout rates for minority students at Yale are not significantly greater than those for all of its graduate students, which indicates that the recruitment procedure, although it has a small yield, is effectively providing well qualified students. We hope that these high standards will be maintained. Some risk is, of course, implied in the use of special recruitment procedures, but the admission of marginal women and minority students should not be practiced, or their inevitably greater failure rate will ultimately regenerate prejudices and lowered expectations.

Postdoctoral Appointees

An important component of the education for a physical scientist who ultimately desires a faculty position is the postdoctoral research experience. Of a total of 81 postdoctoral personnel in all the physical

sciences at Yale, 10 are women and there are no blacks. Table I lists a breakdown according to department.

Since postdoctoral personnel are usually hired by individual principal investigators and paid on grants or contracts, the University administration can do relatively little to accelerate the hiring of minorities and women at this level. We suggest that all principal investigators be reminded that Yale is anxious to have women and minorities in postdoctoral positions, and that they be urged to give such candidates very careful consideration for their available positions. Some extra effort will be called for, because for various reasons minority and female candidates may have somewhat unusual backgrounds. For example, graduates from less prestigious institutions have credentials that are harder to evaluate than those of students from well-known schools with familiar thesis advisors; moreover, there are some extremely promising scientists among those whose careers have been delayed by family commitments or other circumstances, and such people can be identified only by a careful and unprejudiced study of their individual merits. A postdoctoral appointment can be the turning point in a career for a highly able person who has previously not had the best of opportunities, and someone who is using a Yale position in this way is likely to prove the most dedicated and enthusiastic of research colleagues.

We propose that the Associate Provost's office send a brief statement to all faculty members, including the above points.

An additional valuable step would be for Yale to publicize a combined list of postdoctoral openings in the physical sciences, with a statement that women and minorities are actively sought. The Associate Provost has agreed to compile such a list, and to be responsible for its publication

(for example in the journal Science, which carries a widely read list of job vacancies).

Retraining Grants

Positions at approximately the level of postdoctoral appointments could be opened at Yale for the retraining of individuals who have completed their doctoral work. We recommend that funds be made available in order to support a small number of women and members of minority groups who desire to undertake retraining at some point following their doctoral work. In some cases this may mean retraining within their original field; in other cases, this provides for retraining in a new field.

We envisage a training period of one or two years in which the individual will attend courses and seminars within a field and will attempt to participate in research in that field. In some cases this training period will allow an individual to become a far more knowledgeable teacher; in other cases it will allow the individual to involve himself in a stimulating research environment (possibly for the first time).

The value of this program should be measured in two ways. First, it will act to increase the pool of competent scientists who are women or members of minority groups by improving the background of undergraduate teachers. Conceivably some of the individuals involved will go on to research careers. Second, it will provide a greater participation of women and members of minority groups in the scientific life at Yale University. We believe that this will help to provide role models for Yale undergraduates and may help in the recruiting of faculty and graduate students.

We recommend that this program be established on a small scale and

initially be handled through the individual departments as they receive inquiries. After several years' experience it can be determined whether a more formal program should be established.

We do not view this program as a method for departments to obtain postdoctoral assistants or to staff their courses. It is possible that an individual in this program could be offered a faculty or research position after his quality becomes apparent.

This program should not be supported from general appropriations. We recommend that foundation support be sought.

Gibbs Instructors

The Gibbs Instructorship in Mathematics and the Physical Sciences is a most successful program. Annually about eight candidates are selected by the Science Advisory Committee on the basis of recommendation by the various departments. The nominations are based on a national competition. These appointments, active for two years, enable the most promising young scientists to pursue their chosen research in a stimulating surrounding. However, the number of women in this program is small (1 out of a total of 14 in 1975) and there are no blacks.

It sometimes happens that in a given department, or during the interdepartmental selection process, women or minorities are rejected not on the basis of quality, but because their particular field of study is not the one most attractive to a department. In such cases, an excellent opportunity arises for the University to augment its numbers of women and minorities, without any threat of relaxation of the stringent academic

standards applicable to Gibbs Instructors: We strongly suggest that Yale extend to the Gibbs Instructorships the policy now in effect for faculty appointments, whereby additional funds are made available to hire a woman or minority person who has superlative academic qualifications, but in a field of study that would not otherwise be sought. This policy should be implemented in such a way that the number of Gibbs Instructors selected by the usual procedure is not reduced, so that there is no discrimination against the majority of applicants. It should be emphasized that there is no question of making appointments with reduced academic standards.

We believe that the adoption of this policy for Gibbs Instructorships would enable Yale to give unique career opportunities to the most promising minorities and women at this level, while benefiting from further diversity in its scientific community.

Faculty

Out of a total of approximately 179 faculty in the physical sciences, only three are women (one on a visiting appointment), none is tenured, and there are no blacks. There is a clear need to increase the numbers of women and minorities on the Yale faculty in the physical sciences, not only to satisfy legal requirements, but also to give Yale the benefit of further social and cultural diversity, and to give minority and female students models to emulate and an environment more congenial to their aspirations.

It is also clear that the achievement of visible numbers of women and minorities is a very difficult task at the present time, largely because the numbers in the pool are so small. Numerical goals based on

graduation statistics give such small numbers as to be meaningless, and in fact it is questionable whether the statistics of Table II are applicable to the problem at hand. We do not know how many of the women and minorities who have attained the Ph.D. (see Table II) reach the subsequent stage of success in their career which would qualify them for faculty positions. Moreover, departments usually wish to fill a given faculty vacancy with a scientist working in some specific field, so the potential number of female or minority candidates for a given position is generally extremely small or zero.

We note with satisfaction that it is the policy of the University to provide supplementary budgetary support for faculty appointments of women and minority groups, so that departments can consider qualified women and members of minorities for faculty positions without regard to the immediate needs of the department. We hope that this policy will be put widely into practice in the near future, so that departments will have confidence that the appointment of such people will not reduce their faculty strength in necessary areas of specialization.

We feel that a large portion of the responsibility for affirmative action must reside in the individual departments. Only the faculty in each discipline can be familiar with the needs of the departments, the quality standards, and the individuals available in the pool. An independent office can go through the mechanical aspects of the problem and it can ensure compliance with applicable laws, but it cannot address the fine nuances involved in each instance of filling a faculty position. While strongly endorsing the efforts of the Associate Provost in ensuring legal compliance, we suggest that further significant responsibility be assigned to a member

of the faculty in each department. This person should be sincerely concerned in seeing that departmental selection procedures are unbiased, not only in the consideration of applicants for a position, but also in the search for candidates. He or she should ensure that searches are not limited to institutions which minorities and women are less likely to attend ("the old boy network"), that prejudicial judgments on the basis of sex, race, age, etc. are avoided as far as humanly possible, and that the department seriously considers possible minority and women candidates for hiring under the University's policy of providing supplemental funds. The responsible faculty member in each department should be appointed by the Associate Provost, in consultation with the department chairman.

It is important that the women and minority members who do come to Yale in faculty positions (including the Gibbs Instructorships) be given maximum exposure to students and the Yale community. We suggest that these faculty members be associated with a fellowship in a College as soon as possible, be asked to give seminars, and be asked to teach courses where they will have the strongest possible influence on women and minority students for whom the presence of a successful model may be a significant source of encouragement in a prospective career in the physical sciences; upper-level courses for science majors and first-year graduate courses would be the most effective. In this way, the qualified women and minority scientists who do come to Yale as faculty will help to increase the diversity of the future pool.

The advantages of having female and minority scientists could be further realized by implementing a program of invitations to Yale of prestigious members of each discipline, as visiting faculty. Such a

program must be very carefully administered to ensure that the temporary nature of the appointments does not connote an inferior status; other programs for bringing distinguished visitors to Yale can serve as models, and there need be no designation of the appointments as exclusively for women and minorities.

Conclusions

The physical sciences have not been a favorite area of study either for women or for minorities. As a result, the pool of qualified people in the physical sciences is small for women and almost non-existent for racial minorities, so the problem at hand has no immediate solutions. We suggest that Yale must make significant attempts at all levels - undergraduate, graduate, postdoctoral, Gibbs Instructor, and faculty - to improve the representation of minorities and women. All departments must participate in this effort, assisted by the various offices of the central administration, i.e. the Deans and the Provost. The efforts in affirmative action will be more fruitful if funds could be earmarked temporarily for all these purposes, as in fact they are already being earmarked for support of minority students and for additional faculty. As outlined above, it would be desirable to extend special consideration for fellowship support to female students, and to extend the policy of funding supplemental faculty positions to the Gibbs Instructorships.

Our proposals for action approach the problem both directly and indirectly. Direct and immediate action is urged to ensure that qualified women and minority people are not overlooked for admission or appointment

at any academic level. Less directly, the provision of opportunities at each level will improve the future pool of qualified people at all higher levels, while the visibility of successful women and minority scientists at Yale will encourage the aspirations of younger people.

A brief summary of the proposals is as follows:

1. Undergraduate students: Recruitment efforts should be continued and strengthened, and special care should be exercised in the choice of undergraduate advisors for women and minorities who are interested in science.

2. Graduate students: The current program of recruitment of and special support consideration for minority students should be extended to women in the physical sciences.

3. Postdoctoral personnel: Faculty members should be encouraged to make efforts to find qualified women and minorities as postdoctoral appointees. Postdoctoral openings at Yale should be advertized nationally.

4. Retraining grants: Foundation funding should be sought for retraining grants for suitable women and minorities in the physical sciences, whereby they can benefit from the educational and research opportunities in the departments at Yale.

5. Gibbs Instructors: The Gibbs Instructorship should be included in Yale's policy of funding supplemental faculty positions for women and minorities whose academic standing qualifies them for a Yale position, but whose special field is not felt as a departmental need.

6. Faculty: A member of each department should be assigned the responsibility of ensuring that women and minorities are actively sought, for both regular and supplemental positions, and that no bias is exercised in the consideration of candidates. This responsibility should supplement and make more effective the work of the Associate Provost's office in

ensuring legal compliance with affirmative action requirements. Prestigious visiting faculty appointments should be made for women and minorities in the physical sciences. Both visiting and regular female and minority faculty members should be asked to teach courses, give seminars, and so on, that provide maximum exposure to students who may be influenced in the choice of science as a career.

Significant increases in the numbers of women and minorities in the physical sciences at Yale are not likely to be rapid, but they can be accelerated by concentrated and thoughtful efforts by the administration and by individual faculty members.

TABLE I

Male-Female Composition In The Physical Sciences At Yale

	GRAD STUDENTS		POSTDOCS		FACULTY	
	M	F	M	F	M	F
Astronomy	10	2	2	0	7	2
Chemistry	73	26	29	3	26	0
Computer Sciences	28	3	1	1	10	0
EAS	43	4	13	1	44	0
Geology	37	7	3	2	22	0
Mathematics	33	7	0	0	26	1 (visiting)
Physics	63	6	23	3	41	3
Total	287	55	71	10	176	3

Graduate Students: 5 blacks

Gibbs Instructors 13(M) 1(F)

TABLE II

Approximate percentages of Ph.D. granted to minorities and women in the U.S. Expressed in % of the total number. This table has been prepared by Elizabeth Green, Research Assistant. References are available. Most of the data are for the year 1972-1973, except where noted. The numbers should be considered approximate, since different surveys give slightly different figures.

	Asian-American	Hispanic	Chicano	Puerto-Rican	Blacks	American Indian	Women ¹
Astronomy	3.8	0.0	0.0	0.0	0.0	0.0	8.8
Chemistry	11.0	0.8	0.7	0.1	1.0	0.2	9.0
Computer Science	5.4	1.3	1.3	0.0	0.0	0.0	NA ²
Engineering	14.3	0.5	0.4	0.1	0.8	0.2	0.1
Geology	5.1	0.0	0.0	0.0	0.3	0.6	5.0
Mathematics	7.5	0.9	0.9	0.0	0.7	0.1	5.5
Physics	10.0	0.6	0.6	0.0	0.9	0.2	2.8
Average	11.1	0.6	0.6	0.1	0.8	0.2	4.0

1. Top ten, 1966-1971

2. Estimate: 4.2%