highest paid group) universities' salary budgets would have to be increased by about 9.4%. This would not be adequate, however, because this would attract some personnel away from the currently higher paid specialties disciplines driving up salaries there to some extent. The same observation applies to the 50% increase that would be necessary if all academic personnel were to be raised to the level of economists employed in business (the highest paid group in Table II).

The average figures given in Table II understate the differences in market pressures that exist. Some indication of the extent of this understatement can be ascertained from data for groups of departments supplied by the University of Washington. These data, shown in Table III, relate to firm offers received by university faculty and exclude many more tentative offers and, probably, some which were accepted without being reported in detail to the administration. No information regarding the number of reported offers was supplied.

TABLE III

Range of Competitive Offers Reported by University Faculty During 1967-68

	Offers II.	Offers from Other Educational Institutions				
	Professor	Assoc. Prof.	Asst. Prof.	Administrative	Offers from Gov't Business and Indu	
Humanities and						
Fine Arts:	17500	14000	10500	31000	-0-	
High	17500	13567	9567	19216	-0-	
Mean	15667		8200	14000		
Low	13500	13000	8200	14000		
Sciences:				20066		
High	33000	17000		30066	12/00	
Mean	24175	14650	13000	21355	12400	
Low	14950	12000		16000		

	Professors	Assoc. Prof.	Asst. Prof.	Administrative	Offers from Gov't. Business and Industr
Social Sciences:					
High	18000		12500		
Mean	17500	14200	10940	-0-	-0-
Low	17000		10000		the tells
Professional:					
High	20000	25000	28000	17000	36000
Mean	17000	18733	17925	13917	19115
Low	14000	15200	10000	11500	10000

Source: University of Washington, Office of the Vice President for Academic Affairs, Academic Personnel Records.

The high figures are the ones of greatest interest in the present study because it is focused primarily upon the problem of retaining the best qualified faculty. Table III shows great variations in these top offers among the generalized fields of inquiry. At the full professor level the top offer to a scientist was \$33,000, but the top offer to a full professor in the humanities and fine arts was \$17,500. The weighted average figures tell the same general story, with the scientist's mean offer of \$24,175 to the humanities and fine art's \$15,667. A larger number of cases, which in this case would involve a longer time span or the inclusion of less well-defined offers, would probably reduce the discrepancies somewhat, but it is not likely that it would change the general impression that this table conveys.

It is of interest that as a rough rule of thumb it is found that an outside offer to be successful must normally exceed the prospective salary at the present university by more than \$2,000. But many considerations other than salary play an important role.

#### Rates of Compensation Within Departments

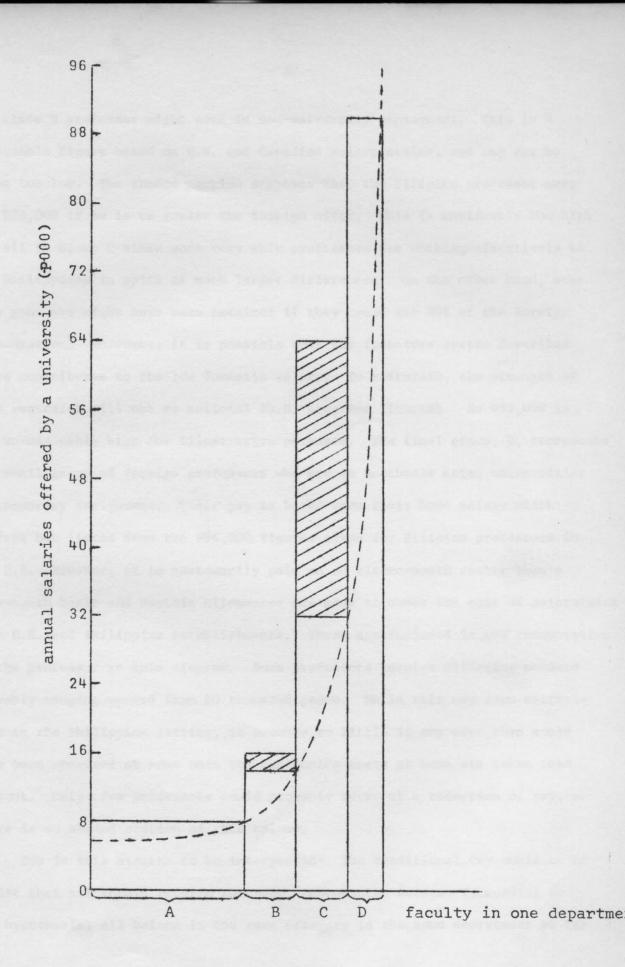
The problems discussed above are equally relevant to staff within individual departments. In any department there are many things to be done, some of which require far higher skill levels than others. If the department has a national, or international, reputation it generally exists because of the activity of a very small minority of the staff. The presence of this staff is primary to the attraction of distinguished visitors, the creation of opportunities for other staff to appear where they have an opportunity to develop themselves, and become better known, and the attraction of first class graduate students. Such staff is rare in nearly every university, and is desired by nearly every university. Adherence to traditional salary policies makes it difficult or impossible to adequately reward merit of this type and makes it easier for universities and institutions which do not adhere to the traditional policies to make irresistible offers to the distinguished staff members thereby improverishing the tradition-bound institution.

Unavoidably, some staff in particular departments will gain access to the world market through their publications and other activities and will find opportunities that do not exist for others who may not appear to be notably less useful to the department or university in most respects.

The ordinary view of this situation is that "equity" should be preserved

-- that good morale requires "equal pay for equal work of the same additional
value". The situation may be presented in highly simplified form as in
Figure 2. It is like Figure 1 except that attention is confined to a single
situation, suitable for a short period of time.

For convenience of reference four distinct classes of professors of a particular subject are referred to instead of the smoothly rising dashed line that is more realistic. This figure simplifies in several other ways. Most important is the assumption that it refers to staff of about the same age, exparience, capability in the classroom, committee and public service activities. All also engage is research that is respected by their colleagues. Nevertheless, they have widely different opportunities and/or interests. Some Group A, shown as about half of the total, by natural inclination are interested only in academic appointments; others may not have the precise talents that attract other types of opportunities. They are more likely to have been locally trained. As shown in Figure 2, they can be recruited and held for P8,000. Group B can work for higher pay in business and industry. While they could command P16,000 they have an additional P2,000 preference for the university life and will work there for P14,000. The amount of the difference between these two amounts is shaded in Figure 2, and reflects the American data which indicate that academics in almost every specialty earn less than their fellow professionals outside academia. The actual size of the differential has not been established for the Philippines. Group C are those with first class foreign Ph.D. degrees and the salary figures are purely illustrative. It shows a foreign salary opportunity of P64,000, or four times the amount that



the class B professor might earn in non-university employment. This is a reasonable figure based on U.S. and Canadian salary scales, and may err by being too low. The shaded portion suggests that the Filipino professor must get P32,000 if he is to resist the foreign offer. This is manifestly too high for all in Group C since some very able professors are working effectively in the Philippines in spite of much larger differences. On the other hand, some have gone who might have been retained if they could get 50% of the foreign compensation. Moreover, it is possible that the indenture system described above contributes to the low domestic salary. To reiterate, the strength of this restraint will ebb as national Ph.D. programs flourish. So P32,000 is not unreasonably high for illustrative purposes. The final group, D, represents the small group of foreign professors who are in Southeast Asian universities on temporary assignment. Their pay is based upon their home salary which differs but little from the P64,000 figures given for Filipino professors in the U.S. However, it is customarily paid on an eleven-month rather than a nine-month basis and certain allowances are made to cover the cost of maintaining both U.S. and Philippine establishments. These are included in the renumeration of the professor in this diagram. Such professors receive differing amounts probably ranging upward from 80 thousand pesos. While this may seem extravagant in the Philippine setting, it amounts to little if any more than would have been received at home once the continuing costs at home are taken into account. Only a few professors would probably serve at a reduction of pay, so there is no shaded protion of this column.

How is this diagram to be interpreted? The traditional way would be to insist that all should receive the same compensation because (according to our hypothesis) all belong in the same category in the same department so far

as the work for the university is concerned. Excluding the foreigners for the moment, that means that if only single-opportunity academics are employed, the "just" compensation is P8,000, but if some with business and government proclivities are added to meet the pressures of rising enrollments, salaries for all should rise to P14,000. If some with foreign opportunities must be added to the staff, compensation to each department member should rise to P32,000. In the latter case this procedure yields a "surplus" of P24,000 to the single opportunity academic and P18,000 to the B group. From the universities' viewpoint expansion to tap groups B and C increases the salary budget by about 6 times without quite doubling the staff.

The cost of the traditional type of salary policy is so high as to make it infeasible. Only a few of the men with international reputations are likely to remain in the long run at salaries only one-fourth or even less that obtainable elsewhere once the special programs of university assistance and the system of indenture come to an end with the establishment of national Ph.D. programs. And salaries higher than that probably cannot be paid if all the staff of a given class are paid on the basis of the opportunities available only to one or two faculty members.

## The Inequity of Equal Compensation and Social Advantages of Market Orientation

As noted above, the standing of a department gaining international recognition usually rests on just a few of the men in a few departments. It is observed above that they are not always acknowledged to be superior by their colleagues although their reputation is the prime source of good graduate students and of opportunities for their colleagues. Such men are in fact more valuable to the department and to the university than the others despite their

equal or inferior merit in other particulars, and are much more difficult to replace if lost. Nor should the stimulation that differential reward provides to the other members of the staff be forgotten. The payment of surpluses is not likely to stimulate the recipients to do the kind of work that will bring them equal recognition. On the contrary, they are more likely to achieve recognition if they are rewarded for their successes rather than riding up on the basis of general increases of a traditional salary scale made inevitable by university expansion.

The foregoing emphasizes the negative aspects of traditional salary policy and the consequences of failure to recognize the differing alternatives of staff members. But where differential incomes exist the effect is also to give additional direction to occupational decisions, thus alleviating the shortages in the short fields more quickly and inhibiting the flow of manpower into the fields that are overcrowded. In the longer run, therefore, the average salaries in the various disciplines will tend to converge as the shortages and crowding are overcome by the adjustment of the numbers in the various fields of inquiry.

# A Rationale Structure with Objective Criteria 12

The preceding graphs can be used to specify an optimizing rule for university administrators in pursuing the goal of faculty excellence. It is also a salary policy which avoids disbursing unnecessary, contrafunctional surplus. This rule is based on the recognition of the principle that "a faculty is

<sup>12</sup>This statement is drawn in large part from Philip W. Cartwright, "The Economics of Deaning", The Western Economic Journal, Vol. III, Spring, 1965, pp. 152-164. Dean Cartwright discusses the non-salary as well as the salary inducements, making a comprehensive and insightful analysis of a modern personnel policy. A similar point of view is taken by D.A. Worcester, Jr., one of the present authors, in "The University in the Free Economy," Journal of Higher Education, Vol. 20, March 1958, pp. 121-127. Both of these contain refinements and dimensions of this approach not discussed in the present paper. A more technical treatment of these matters may be found in Roberto M. Bernardo, "The Concept of Joint Wage Discrimination and its Implication for International Educational Consortiums in Poor Countries," (typescript).

largely made up of non-substitutable units", It follows that "there is no more reason why a sociologist should receive the same income as a professor of education than there is that a physician should receive the same income as a ship captain or a diamond merchant". Indeed, there are good reasons why they should not receive the same pay and status. The industry of higher education requires men and women (with a variety) of talent(s) For the manytalented, the choice (of field) is often guided by the apparent opportunities and prospective income." This summarizes the argument associated with Figure 1 and Table II. Cartwright goes further, treating each faculty member as a unique individual with his own attitudes, talents and opportunities, i.e., as an industry by himself.

Among the most important problems blocking the adoption of such a view is a skeptical, even hostile attitude of the administrators (whose tasks are increased) and of a portion of the staff which is proud of the traditional scholarly disdain for monetary gain. These attitudes are most likely to yield if objective criteria are applied to determine salaries and safeguards are built in to protect staff who may otherwise be overlooked.

Objective criteria useful for personnel administration are of two principal kinds. The most objective is a firm offer from another institution. A firm offer is one which specifies both the salary and other terms of appointment and the date at which the appointment is to begin. In a traditional system, the professor in receipt of a firm offer would simply have to decide whether or not to take it. In such a system the existence of such an outside offer is irrelevant to his salary and related matters, for they are determined for the group as a whole. Dean Cartwright's position is quite different and is far

<sup>13</sup>Worcester, op. cit., p. 124

more relevant to the emerging situation in Philippine universities. A firm offer is an objective measure of the professor's value to another institution, and is called his "opportunity cost". Cartwright writes, "Competitive offers from equal or superior institutions are an excellent measure of a faculty member's opportunity cost, and should be heeded by a dean". This does not mean that any such offer should be mindlessly matched or countered for according to his basic principle enunciated on the same page,"... each faculty member should be paid an amount which reflects both his value to the institution and his opportunity costs, but exceeds neither." This clearly calls for another criterion which can be utilized to establish the faculty member's value to the university. This criterion also needs to be made as objective as possible.

A faculty member's value to his institution is composed of many aspects and as noted above it is understandable that administrators should shrink from the task of making a systematic annual or bi-annual faculty evaluation. This reluctance is increased because of a rather unreasoned fear that an arbitrary or political element is introduced by such procedures. Actually, a well conceived system of faculty evaluation will reduce the arbitrary element in the compensation, dismissal and retention of staff. This is true becaue the traditional system that prevents or inhibits merit increases geared to individual rates of development, and counter offers to staff who have received excellent offers from equal or superior universities elsewhere, is a very arbitrary system.

It is worthwhile to describe one procedure for objectifying "value to the university". First, some generalized statement of principles needs to be worked out by the university administration although it is understood that it

<sup>14</sup>Cartwright, p. 163

cannot be applied mechanically to every division within the university. Each faculty member prepares his vita in terms of the established criteria and submits it annually to his department chairman who reviews it with department members of superior rank and submits it to his dean along with a statement of the departmental consensus and his own recommendation for merit increases, if any. The dean in consultation with a group of faculty elected by the faculty makes a similar review and allocates the merit increases. Some review procedure should be provided in the event of disputes between the department and the dean.

Very similar procedure can be followed when matters of promotion and outside offers arise. The final decisions on the size of salary increases probably must be left with the dean because the differences in salary scales among fields of inquiry, and personal preferences of individual faculty members for additional research equipment, time off and other non-salary benefits in place of salary adjustment raise complications beyond the competence of the committee members who have limited time for these administrative matters.

A procedure such as this does provide for reasonably objective determination of a faculty member's value to his university which is indispensable to a wise personnel policy. It can give full weight to his contribution to teaching, stimulation of colleagues and graduate students, to harmony in the department and so on that is not likely to be known to other universities, as well as to his publications, appearances at conferences, etc., which are known to them. By paying attention to them in awarding merit increases the university can encourage fuller development of the diverse talents of its staff. Of course, it will not do so if it chooses to reward publications alone, as sometimes happens when the committee and deans take the easy way out. And it remains true that the most valued members of the faculty are likely to be those

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in demand at other institutions who have become known through their publications.

### Three Aspects of The Optimal Rule

- 1. Normally, one would expect that a faculty member's value to his institution, when determined in this manner, will be closely equivalent to his value to other institutions. If so, the home institution's salary should suffice to retain his services.
- 2. If his value is thought to be less to other universities than it is to his present university, the optimal rule would suggest that his salary should lag behind those of equal value to the home university but of greater value to others. If the judgment is wrong, an offer from another university is likely and an upward adjustment will be forthcoming. Many will consider this type of treatment unkind and wrong. Few administrators, Cartwright included, would push this to a naively-conceived limit that would alienate the individual, thus reducing his effectiveness to the university, especially if he could not be easily replaced at his opportunity cost. But the fact remains that the existence of such people on the staff provides a source of funds which can be used to hold those of great value to the institution, and who are equally valued elsewhere. It is upon the latter that the reputation of the university largely rests.
- 3. The final aspect of the optimal rule is that when a faculty member is worth so much more to another institution that the cost of his retention would exceed his value to the university, one should let him go. This is the most difficult aspect of the "rule" from the standpoint of universities in less developed nations. Increasingly, Philippine scholars, for example, will receive offers from foreign institutions which involve four to five times their nominal

Philippine salary computed at current exchange rates. The quality of their teaching, research, etc., may not be considered to be remarkably better than that of other staff members who for one reason or another are not known abroad.

Should the university make an effort to hold such aperson? The question to be asked is, does the fact that he is recognized elsewhere increase his value to the university? Unquestionably it does -- to some extent. The university's prestige is enhanced still more if he refuses the offer. The increased interest is likely to bring to light the fact that others of approximately equal quality are also on the staff. Thus the ability of the university to attract still more able staff and graduate students in the future is enhanced by the refusal of the offer. In short, the fact of an outside offer is evidence of merit and should be regarded as an addition to the record based upon the internal system of faculty evaluation described above.

It does not follow, however, that all firm offers should be matched or even countered. The Southeast Asian universities will not normally be able to match foreign offers peso for peso, but this should seldom be necessary. Where it is clear that an individual cannot be held by a reasonable offer, he should be congratulated and wished "Godspeed". But the salary budget should be managed so as to make possible substantial counter offers, of perhaps half of the firm offer, to those of great value to the institution who have achieved recognition abroad.

# The Optimal Use of University Development Funds From Abroad

In recent years, and for some years to come, an additional and troublesome complication which tends to prolong the use of the traditional salary policy will exist in the salary structure of those universities which host foreign-

financed programs of university development. Such programs tend to have that effect because the bulk of those likely to receive offers from abroad are in indentured status and because the total demand for staff is met in part by temporary staff from abroad. There are also many Filipinos still in graduate school abroad from whose ranks faculty losses can more than be made up for a time. Finally, if losses become too great, the university may, for a time, find it possible to make them up at leas cost to the university budget by requesting larger numbers of visiting professors, who are financed by foreign institutions.

The traditional policy, nevertheless, complicates rational personnel policy even now. It is a fact, for example, that some Filipinos succeed in securing Ph.D. degrees from major American and other universities utilizing their own resources. Yet when they apply to Philippine universities they are placed in the same position on the same salary scale as are the indentured returnees. Obviously, this discounts completely the investment that the non-indentured student has made in himself. Professor Gary Becker's analysis of the return to education found that employees who secured on the job training at the employer's expense did not secure higher wages because of the training since the employer received the gains as well as absorbing the cost. On the other hand those who secured training at their own expense also received the gains. It is unreasonable to expect the typical Filipino Ph.D. to behave otherwise, although there will no doubt, be some exceptions. The effectiveness of the university development program is reduced by the failure of the personnel policy to recognize the fact that the indentured staff has different opportunities.

<sup>15</sup>Gary Becker, Human Capital: A Theoretical And Empirical Analysis With Special Reference to Education, NBER, General Series, No. 80, Columbia University Press, N.Y., 1964, pp. 18-29

It provides an improperly depressed guide to the appropriate salary for nonindentured returnees.

The agencies supporting the university development programs need to be conscious of side effects of this type that tend to raise the cost and reduce the effectiveness of their programs.

In this connection it should be emphasized that some of the Filipino staff have already reached the end of their period of indenture, and others are approaching it. Some of these faculty members will soon become available for other employment, but they are likely to have made plans a year or more in advance of that day. Recognition of the fact that they have almost "paid" for their advanced degree by the agreed term of service should begin to come before the end of the period if the department wishes to retain the individual. Conceptually, his income should rise quickly from the indentured to the non-indentured scale as measured by the internal criteria of staff evaluation.

The employment of foreign professors at salaries and allowances based on their domestic scales can easily add less than the maximum possible to university development. The principal arguments in favor of the use of costly American and European professors are that they are part of a short term program to expand staff at a more advanced and experienced level while Filipino ranks are being swelled by a crash program of subsidized foreign training for Filipino students. In addition, experienced foreign professors can give assistance in the construction of the new M.A. and Ph.D. programs, and to the Filipino faculty who are not able to seek foreign training. The counter-arguments are that the funds could be more effectively employed to recruit Filipino and other Asian scholars who have obtained advanced degrees abroad for these posts in the hope that some will renew their home ties and decide to stay permanently. These

might also be willing to come for a smaller income. If so, more university development would occur for the same cost.

As it is, Filipino Ph.D.'s who have paid for their own education are hired on the normal professorial scales which may be one-fourth or one-fifth of the salary they can receive in the United States or Canada with no allowance for travel, moving of personal effects, etc., while other professors who are not Filipinos are brought at full U.S. pay plus allowances, travel and some additional fringe benefits to do work which is in many respects similar.

Although the Filipino professor may be younger and deemed by some to be less suitable to a university development program, it is inevitable that the Filipino professor will feel that he is a victim of discrimination when the contrast in terms is so very great. Universities and foundations should give serious thought to attempting to recruit expatriate staff for their university development programs. Terms should be arranged similar to those for other visiting professors but with the added proviso that if they join the visited university permanently they will become part of the regular staff at the regular salary scale for non-indentured staff. Special arrangements should be made in such cases to avoid obligations to return to the leave-granting university.

Alternate uses of university development funds such as those just outlined merit examination. If they can reduce the "brain drain" and hasten the development of universities in the developing nations into the second phase of their development one can argue that the funds would be more efficiently used.

External assistance is not presently oriented to the alleviation of the problems that arise as the second phase is reached. Yet is unlikely that foreign foundations and institutions will be interested in the quasi-permanent relation-

ship that appears to be necessary to good quality universities should the transition into the second phase fail because of loss of staff. This is true because much more serious issues of misunderstanding and nationalist feeling are raised by long term supplements of expensive foreign staff than by the shorter term programs of assistance now in effect.

This is aggravated by a paradoxical result of the cooperative faculty sharing schemes described. Foreign faculty receive wages reflecting their high intra-occupational monetary alternatives, but even high-level native faculty receive administratively set salaries depressed by the indenture system. The two different wage lines for the same job -- the essence of wage discrimination -- advertises the benefits of moving, and talented faculty in host country universities are made more likely to leave. Thus, for the duration of the assistance program (which Bernardo was informed by a visiting trustee of the Rockefeller Foundation rarely lasts as long as fifteen years), there is an inducement exerted on the host university and its government to adhere to a traditional and administratively set salary system and a tendency to ask for additional foreign faculty to replace resigning native faculty as well as those faculty who take more frequent leaves. Yet adherence to the traditional system prepares the ground for rapid decline at the end of the assistance program.

Foreign-assisted universities in the developing nations are under less pressure, at present, to invest additional funds or to adopt a more efficient salary policy geared towards the retention and recruitment of high level indigenous faculty whose opportunities are worldwide because of a buffer that makes the replacement cost of a resigning Ph.D. look low - perhaps close to zero. This is true because, for the present, it is possible to replace him with a new, indentured, Ph.D. at negligible cost to the host university through the

international educational consortium's training program abroad. If a shortage of staff develops nonetheless, a visiting faculty replacement may be recruited at near zero cost to the host university. 16

#### Long Run Programs of University Development

In the long run there should be no need for any staff fully supported by foreign funds, but there will be a continued and growing need for contact with other centers of learning. It is a growing need because with local training of Ph. D.'s contact with other universities tends to be lost. One device which may be helpful is a system of joint appointments, and exchange professorships. Joint appointments involve appointments of a Philippine professor by, say both the University of the Philippines and an American university with an agreement that he teach, perhaps two years in the Philippines to one in the U.S. This would not only serve to increase the professor's income substantially, but would refresh him and make him a more useful member of both faculties. Similar arrangements could be made so that American professors would exchange with the Philippine professors. They too would benefit from the experience. This would require additional financial support to cover part of the costs of the Philippine sojourn. The purpose of these exchanges is not to augment Philippine staff, as is one purpose of the present programs of university development, but to enhance the quality and vigor of the present staff, many of whom will have received Asian Ph.D.'s and who will benefit from periodic teaching and research in a different university.

While this is a program for the long run, there are already senior staff who are past their periods of indenture, or are nearly through, who may be fruitfully retained by such a system, but who may otherwise be lost.

<sup>16</sup> This is discussed more fully in Bernardo, op. cit.

#### Summary

The major universities in Southeast Asia are presently making rapid strides towards very good universities capable of offering the Ph.D. degree in many departments. These have been greatly assisted by programs of university development that have subsidized advanced education abroad and supplemented staff from foreign sources until returnees can take their places. The success for further development is endangered by a personnel policy which is traditional in academia but particularly inappropriate to the situation that is developing. The existence of the development programs has masked the growing dangers. An alternative program is presented and examined which has many facets. It offers considerable promise of overcoming the dangers inherent in the present university policies and reducing the obstacles to the continued development toward excellence.

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