BIFAD
Board for International Food and Agricultural Development

OCCASIONAL PAPER NO. 3

Economic Incentives for University Faculty Serving Overseas

December 1980

Agency for International Development
Washington, D.C. 20523

BOARD FOR INTERNATIONAL FOOD AND AGRICULTURAL DEVELOPMENT
INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

Agency for International Development
Washington, D.C. 20523

ECONOMIC INCENTIVES FOR UNIVERSITY FACULTY SERVING OVERSEAS

by

E. Boyd Wennergren

Director, International Programs,
and Professor Agricultural Economics

Utah State University

This report was originally published in September, 1980 as MONOGRAPH NO. 3 by the ECONOMICS RESEARCH CENTER, Department of Economics, Utah State University, Logan, Utah 84322. The views expressed are those of the author and do not necessarily reflect those of the BIFAD, IDCA, or AID.

PREFACE

Since the enactment of the 1976 Tax Reform, considerable anxiety has existed within the U.S. university community regarding the impact this law would have on the economic incentives for faculty serving abroad on USAID and other donor agency programs. Economic incentives are among the important considerations for faculty going overseas.

What follows herein is a limited analysis of this issue using selected examples. The number of potential examples are as great as the number of individuals considering overseas assignments and the variation in non-cash benefits which exist among the 60 or more nations which qualify for U.S. assistance. However, some generalizations are possible. Hopefully, this analysis will help in bringing objective reasoning to the issue of economic incentives which some feel is critical if we are to effectively meet the demands related to projected world food imbalances.

ECONOMIC INCENTIVES FOR UNIVERSITY FACULTY SERVING OVERSEAS

It is generally recognized that the U.S. university system houses the greatest concentration of skilled scientific agriculturalists found anywhere in the world. The scientists and the system have proven their competence by playing a highly significant role in the economic development of the United States. Their efforts helped fuse the development of a highly efficient agricultural sector which has underpined the overall development of this nation.

Since 1951, several universities within the U.S. system have participated in foreign economic assistance under sponsorship of the United States Agency for International Development (USAID). Much of the university's assistance has been in subject matter areas related to the production of food and fiber in the developing world. Universities have engaged themselves as contractors with USAID to provide technical help for developing nations, which has resulted in sending a significant number of their faculty abroad to live for a minimum of two years. Often the period is extended to as much as five years.

In recognition of the expertise found in the University system, and with the motive to involve this capability even more in carrying out U.S. technical assistance programs, Congress enacted a Title XII to the International Development and Food Assistance Act of 1975. This enactment came just one year before the 1976 Tax Reform Act, which removed the $20,000 foreign income exclusion for Americans working abroad. Both are important to the incentives related to university faculty working abroad.

University and Individual Incentives

The decision to commit a university and its faculty to programs abroad is not an easy one. The overseas assignment of faculty for long-term assignments results in difficult adjustments and uncertainties for the university. Replacement faculty must be found. Such faculty generally come from among less qualified personnel, since no guarantees of long-term employment can be made for the interim assignment. After all, the regular faculty member will be returning in two or three years. Teaching assignments must be adapted and research projects are interrupted, terminated, or reassigned to another staff member, often with some loss in quality and effectiveness.

To the staff member, the decision to go abroad has professional, personal, and economic elements. Professionally, they are concerned about their classes and/or research projects. Will they lose continuity and quality of output in either by the interruptions of an overseas assignment? Will their professional output overseas be sufficient in quantity and quality to be recognized by their peers and administrators as acceptable for promotion, tenure, and annual salary adjustment credits?

On a more familiar basis, the questions of family and personal welfare are important. Will the children have good schools? Will they have adequate medical care? Is there danger of physical harm? Where will the family live? Can they get the foods they want? Should one permit this assignment to interrupt the domestic relationships his children have established in school, etc.? Are there cultural advantages to them in living abroad? The questions go on and on in evaluating the implications of the assignment to the family and its members.

A final consideration is related to salary and economic benefits associated with assignments abroad. How much will he be paid? What other benefits will he receive, etc.? The critical element in the decision process is a comparison of what the results of working abroad are on net family income versus net family income if the assignment is by-passed. In most cases, the staff member has the alternative of declining to go. Therefore, if the foreign assignment is to be accepted, significant economic incentives must be in evidence. Often, adequate economic incentives can offset some of the family and professional concerns. The uniqueness of this position for university faculty in relation to those who work abroad for other agencies such as the federal government is often overlooked. Employees of USAID, for example, accept the fact of overseas assignment as a given with such federal employment. The alternative to reject an assignment overseas usually does not exist if one is to continue with the Agency. Consequently, the issues of incentives are not so relevant with USAID personnel, but are unique with those who serve abroad from the university system.[1]

---

[1] For a more substantive discussion of the incentive issues, see Whitaker, Morris D., and E. Boyd Wennergren, "U.S. Universities and the World Food Problem" Science, Vol. 199, October 29, 1976, pp. 499-500.

Before 1976, one of the more attractive incentives to university faculty was the exclusion of $20,000 of income for federal tax purposes by U.S. citizens living abroad who qualified as either a "Bona Fide Resident Living Abroad" or as a "Resident Abroad by Reasons of Physical Presence". The exclusion represented a significant economic benefit to university professionals, since most long-term assignments lasted two years or more, which made it possible for them to qualify for this benefit. However, the 1976 Tax Reform Law eliminated the $20,000 income exclusion and replaced it with a deduction for "Excess Foreign Living Expenses". The latter deduction is calculated on the basis of several categories of earned non-cash benefits which are considered taxable income by the Internal Revenue Service. Included are such contract paid items as family housing, rest and recuperation leave, education allowances, cost of living allowances, etc.

The impact of this change in the tax law on individual money incentives has been the topic of much concern since about 1976. Elimination of the $20,000 exclusion is thought to have had a significant negative effect on the incentive structure for individual staff members. The concern is further heightened by the rising value of non-cash benefits which has occured in the last ten years, and which must be declared as taxable income. Inclusion of these non-cash benefits often places individuals in taxable income categories higher than the cash incomes received. In some developing nations, for example, housing costs reach levels of $2,000 per month, while $500-600 per month is common in most countries. Adding these amounts to relatively high dollar salaries can place an individual at a significant federal income tax disadvantage.

Objectives of this Analysis

The general objective of this analysis is to assess the implications of the changes in the 1976 Tax Reform Law for university personnel serving abroad on long-term assignments. Specifically, the analysis will:

1. Illustrate the computational procedure for determining the net income of university faculty serving overseas.
2. Analyze the impact of the 1976 Tax Reform Provisions on the net incomes of faculty serving abroad.
3. Analyze the comparative real net incomes for faculty serving abroad prior to 1970 under the $20,000 exclusion and currently under the 1976 Tax Reform Provisions.

Results of the Analysis

The analysis in Table 1 shows data examples to illustrate both the computational procedure for the 1976 Tax Reform Law and the impact of several variables of relevance to the income position of the faculty member.

Column 1

Column 1 sets forth the computational steps involved in deriving the taxable income and federal tax bill for an individual under the 1976 Tax Reform Law. The illustration can be used to calculate the income position for a faculty member by substituting the relevant dollar amounts. For purposes of this analysis, several assumptions are made.

ba

TABLE 1. COMPARISON OF NET INCOME UNDER 1976 TAX REFORM AND REGULAR INCOME EXCLUSION ALTERNATIVES WITH STATESIDE INCOME FOR SELECTED EXAMPLES.

ITEM Family Size - 4 People	Overseas 1976 Tax Law Example 1	 Example 2	 Example 3	Stateside If Remain at University		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Campus Salary (12 mo.)	$25,000	$50,000	$50,000	$25,000	$35,000	$50,000
2. Overseas Salary	29,980	60,000	52,000			
3. Cost of Living Allowance	1,000	1,000	1,000			
4. Overseas Differential - 20%	5,995	12,000	-0- *			
5. Family Hardship	-0-	-0-	-0-			
6. Education - $1500/Child	3,000	3,000	3,000			
7. Home Leave - $700/Person	2,800	2,800	2,800			
8. Housing Allowance	20,000	20,000	20,000			
9. Other Allowances	6,000	6,000	6,000			
10. Total Allowances	38,795	44,800	32,800	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
11. Total Income (Add L. 2 & 10)	68,775	104,800	84,800			
12. Excess Foreign Living Expenses:						
13. Housing:						
14. Housing Costs	20,000	20,000	20,000			
15. Earned Income (Total)	68,775	104,800	84,800			
16. Education	3,000	3,000	3,000			
17. Home Leave	2,800	2,800	2,800			
18. Hardship	-0-	-0-	-0-			
19. Cost of Living	1,000	1,000	1,000			
20. Housing	20,000	20,000	20,000			
21. Other	6,000	6,000	6,000			
22. Total (L. 16-21)	32,800	32,800	32,800			
23. Subtract L. 22 from L. 15	35,975	72,000	52,000			
24. 20% L. 23	7,195	14,400	10,400			
25. Allowable Housing Expense (Subtract L. 24 from L. 14)	12,805	5,600	9,600			
26. School	3,000	3,000	3,000			
27. Home Leave	2,800	2,800	2,800			
28. Family Hardship	-0-	-0-	-0-			
29. Cost of Living	1,000	1,000	1,000			
30. Other	6,000	6,000	6,000			
31. Total Foreign Living Expense (L. 25 to L. 30)	25,605	18,400	22,400			
32. Taxable Income Calculation:						
33. Total Wage Allowances	68,775	104,800	84,800	25,000	35,000	50,000
34. Regular Deductions - 20% of L. 2	5,996	12,000	10,400	5,000	7,000	10,000
35. Excess Foreign Living Expense (L. 31)	25,605	18,400	22,400	-0-	-0-	-0-
36. Income Exclusion	N/A	N/A	N/A	N/A	N/A	N/A
37. Taxable Income (Subtract L. 34 & 35 from L. 33)	37,174	74,400	52,000	20,000	28,000	40,000
38. Cash Income (Add L. 2 & 4)	35,975	72,000**	52,000*	25,000	35,000	50,000
39. Federal Tax Due (Based on L. 37)#	9,011	27,454	15,758	3,225	5,593	10,226
40. Net Income (Subtract L. 39 from L. 38)	26,964	44,546	36,242	21,775	29,407	39,774
41. Net Overseas Differential	5,189	4,772	-(3,532)	N/A	N/A	N/A

* Total Salary Limited by Ambassador Salary

** Total Salary Not Limited by Ambassador Salary

\# Calculations Based on 1979 Tax Tables

1. Line 1: The family size is two adults and two children.
2. Line 2: Only university income is used. In reality, other sources of income could be involved, such as consulting fees, interest on savings and investment, etc. Income sources lost by overseas assignment are of particular importance.
3. Line 3: Computation of the overseas salary should be in accordance with the established rules and procedures of the individual university.
4. Line 36: For purposes of computing taxable incomes, regular deductions are 20 percent of overseas salary (line 2).
5. Line 43: The net income does not account for state taxes of social security payments. Where appropriate these should be added to the calculations.

By way of explanation, the computation of Excess Foreign Living Expenses begins on line 12. The procedures illustrated in lines 16 through 24 are for the purpose of determining the allowable deduction for housing expenses as provided for in the 1976 Tax Reform Law (and shown on line 25). The total allowance (which includes lines 25 through 30) is subtracted from total wages in line 33 to arrive at the taxable income (line 37). The previously allowed income exclusion of $20,000 is shown where appropriate in line 36, since it is used for comparison purposes later in the analysis.

Column 2

This example illustrates a situation for a faculty member who receives a $25,000 campus salary. The overseas benefits are as listed in lines 3 through 9 and totalled on line 10. The example is intended to anlayze particularly the impact of high housing costs and other non-cash benefits.

Column 3

This example illustrates the same non-cash benefits as example 2, but varies in that the campus salary is $50,000. This means that the overseas salary of $60,000 exceeds that normally allowable by USAID wherein all technical salaries are subject to limits established by the Ambassador's salary, except with prior authorization.

Column 4

This example illustrates the same non-cash benefits as the prior two examples but limits the total income to $52,000, which is a normal FSL-1 salary level for an Ambassador.

Columns 5, 6, and 7

These three columns show the calculation of net incomes for faculty if they were to remain stateside and not take the foreign assignment. The campus salary levels are the same as those shown in columns 2, 3, and 4 and the analysis provides the basis for a comparison of the net income benefits from overseas participation. As will be illustrated in the next section, a comparison can also be made between the 1976 Tax Reform and $20,000 income exclusion.

Comparison of Alternatives

Several generalities emerge from a comparison of the alternatives:

1. The net income advantage to the faculty member who serves abroad in relation to remaining at the University is positive in two of three examples. Columns 5, 6, and 7 show the estimated net incomes for faculty with annual income of $25,000, $35,000, and $50,000 who remain home. At a $25,000 salary, the overseas assignment generates an increased annual income of $5,189 or 24% for the conditions postulated (difference in line 40 for columns 2 and 5). If a person has a $50,000 base salary and is not limited by the Ambassador's salary level, the annual increase is $4,772 or 12% (compare columns 7 and 3). If the salary is limited to a $52,000 Ambassador level, the staff member would receive $3,532 less overseas than if he remained at home (compare columns 7 and 4).
2. The 1976 Tax Law provided the greater benefit in relation to the $20,000 exclusion for two of the cases analyzed. In examples one and three, the deduction for "excess living expenses" (line 35) exceeds the $20,000 exclusion. In example 2, the income exclusion alternative would provide a better income alternative. But it should be remembered that this situation arises due to the unusually high housing benefits. Where lower non-cash benefits exist, the $20,000 income exclusion should consistently yield the greater benefit (see Table 2, columns 2 and 3).

3. Given the extremely high housing costs ($20,000 per year), the 1976 Tax Law computational procedures for establishing the "allowable expense" does not eliminate all of the housing expense, and the remaining must be included as part taxable income. The amount of the housing expense which is deducted tends to increase as total income declines (compare line 25 for each example). All other non-cash benefits are "added in" as income in line 10, and "subtracted out" in line 35.
4. In all three examples where high housing costs are assumed, the amount of taxable income is equal to or exceeds the cash income of the individual (compare lines 37 and 38). In these cases, staff members are being assessed in tax brackets higher than their actual cash income.

Analysis of Real Income

In addition to the relative net incomes in a given year associated with working abroad as compared to remaining at home, concerns exist among university faculty about the "real" net incomes associated with overseas work. In other words, do current salaries, non-cash benefits, and tax obligations translate into some sort of net income parity with conditions existing in years past?

Data in columns 2, 3, and 4 of Table 2 provide a comparison of hypothetical (but not unreal) conditions for the years 1967 and 1980. Salary benefits are increased from $16,000 in 1967 (column 1) to $35,000 in 1980 (columns 2 and 3)

9a

TABLE 2. COMPARISON OF REAL NET INCOMES OVERSEAS FOR SELECTED EXAMPLES, 1967 AND 1980

ITEM Family Size - 4 People (1)	YEAR 1967 (2)	 1980 (3)	 1980 (4)
1. Campus Salary (12 mo.)	$16,000	$35,000	$35,000
2. Overseas Salary	19,185	41,970	41,970
3. Cost of Living Allowance	-0-	300	300
4. Overseas Differential - 20%	3,837	8,395	8,395
5. Family Hardship			
6. Education - $1500/Child	1,600	3,000	3,000
7. Home Leave - $700/Person	1,050	2,100	2,100
8. Housing Allowance	3,000	6,600	6,600
9. Other Allowances	-0-	-0-	-0-
10. Total Allowances	9,487	20,395	20,395
11. Total Income (Add L. 2 & 10)	28,672	62,365	62,365
12. Excess Foreign Living Expenses:			
13. Housing:			
14. Housing Costs		6,600	
15. Earned Income (Total)		62,365	
16. Education		3,000	
17. Home Leave		2,100	
18. Hardship			
19. Cost of Living		300	
20. Housing		6,600	
21. Other			
22. Total (L. 16-21)	NOT APPLICABLE	12,000	NOT APPLICABLE
23. Subtract L. 22 from L. 15		50,365	
24. 20% L. 23		10,073	
25. Allowable Housing Expense (Subtract L. 24 from L. 14)		-0-	
26. School		3,000	
27. Home Leave		2,100	
28. Family Hardship		-0-	
29. Cost of Living		-0-	
30. Other		-0-	
31. Total Foreign Living Expense (L. 25 to L. 30)		5,400	
32. Taxable Income Calculation:			
33. Total Wage Allowances	28,672	62,365	62,365
34. Regular Deductions - 20% of L. 2	3,837	8,395	8,395
35. Excess Foreign Living Expense (L. 31)	-0-	5,400	-0-
36. Income Exclusion	20,000	N/A	20,000
37. Taxable Income (Subtract L. 34 & 35 from L. 33)	4,835	43,570	33,970
38. Cash Income (Add L. 2 & 4)	23,023	50,365	50,365
39. Federal Tax Due (Based on L. 37)#	-0-	14,077	7,707
40. Net Income (Subtract L. 39 from L. 38)	23,023	36,288	42,658
41. Net Overseas Differential	N/A	6,331	13,251

Calculations Based on 1979 Tax Tables

while non-cash benefits reflect increases but not the high total values assumed in the prior examples (Table 1). These examples (columns 2 and 3) also contrast the impact on net incomes of the 1976 Tax Law Provisions and the $20,000 tax exclusion.

Based on the assumed data, a person working overseas in 1967 netted $23,023 in cash income and paid no federal income tax (column 1). Furthermore, the non-cash benefits, while taxable, were not sufficiently high to result in taxable income that required payment of federal taxes. In 1967, the $20,000 exclusion was in force. With a $35,000 campus base in 1980, an individual would net $36,288 under the 1976 tax law provisions (column 2), and $42,658 with the $20,000 exclusion (column 3). Both exceed the $29,407 (column 6, table 1) he would net by remaining at home by 23% and 45% respectively. Both levels also exceed the net amount earned in 1967. It is interesting to note that, at this income level, none of the housing allowance of $6,600/year is "deducted out" and all remains as taxable income under the 1976 Tax Reform Provisions.

While the total dollar net income is greater in 1980 than in 1967, the real income is considerably less. Based on the Consumer Price Index for April, 1980 of 242.8 (with 1967 at the base year), the real value of the $36,288 net income earned in 1980 is $14,945. The $42,658 earned in 1980 under the $20,000 exclusion example is $17,569. Both are less than the $23,023 earned in 1967. To obtain the 1967 equivalent income level in real dollars, the 1980 net income would have to be $55,900.

Summary Conclusions and Observations

1. There is little doubt that the economic incentive for university faculty to serve abroad has been eroded in most instances by the 1976 Tax Reform Law. For most individual cases, it seems apparent that a reinstitution of the $20,000 income exclusion will provide improved benefits and is badly needed as a minimum attempt to re-establish the economic incentive for overseas work.
2. The presence of extraordinarily high housing costs in some developing countries undoubtedly distorts the issues related to non-cash benefits, since these situations are not "normal" for most developing nations. However, it is unrealistic to expect faculty members to bear the burden of this and any other large non-cash benefits as taxable income. If this is required, then the limits on annual salaries must be removed to permit reasonable economic incentives. Failure to do so will severely restrict the ability of the university system to recruit personnel for service in these nations.
3. A better alternative would be to reconsider the method of determining the allowable exclusion for Excess Living Expenses abroad. Housing is the only non-cash benefit which is currently "added in" as income under the 1976 Tax Law procedures, and not entirely "subtracted out" as an excess

expense. There is no rationale for this distinction, expecially if the faculty member maintains a residence in the U.S. and/or is being sent abroad by the university on a temporary change of assignment. The high housing costs in the developing nations do not necessarily reflect high quality housing. It may be merely a case of high demand and short supply for very moderate to poor housing. The demand pressure can be attributed to market competition for limited houses among contractors, much of which can be caused by the AID host country contracting mode. Consequently, there is no need to think that the tax provisions should somehow reflect penalties on overseas personnel for extravagant living quarters. A more realistic approach would be to consider all non-cash benefits as non-taxable income, thus simplifying the law and calculations, and improving the incentive package for faculty.

4. In cases where "moderate" non-cash items are present, the increase in net income for overseas assignment provides some incentive. Under the 1976 Tax Law provisions, the incentive is likely minimal and will probably elicit a limited response of faculty interest to serve overseas. A 25 percent overseas net differential is probably a marginal incentive where the faculty has the alternative of remaining at their home university and avoiding all of the exigencies associated with movement abroad.

5. Of considerable concern to the incentive issue is the loss of real net income equivalence which has occurred since the

mid-1960s. While the one example in this analysis is not sufficient to conclusively demonstrate the magnitude of the loss, it seems clear that the economic benefits of working abroad are considerably reduced from those received several years ago. The most logical alternatives for correcting the situation involve adjusting the non-cash benefits, the income exclusion or the permissible gross income levels in some combination that will lead to individual real net incomes that are equivalent to those of the mid-1960s. Elimination of non-cash benefits as taxable income, for example, makes administrative sense and would reduce the problems associated with extreme cases of housing costs. Furthermore, eliminating non-cash benefits would recognize that the relocation of faculty to overseas assignments is in most cases temporary, and that these thought-to-be "benefits" are actually "costs" associated with the change in assignment.

6. The erosion of prior economic benefits has become widely understood, especially among younger university faculty. Consequently, the supply of qualified faculty willing to serve abroad has diminished considerably in comparison with 10-15 years ago. At the same time, the demand and need for university faculty has expanded dramatically at a time when the United States continues to invest billions of dollars in developmental efforts in the Third World. University personnel supply both their own contract programs and to a considerable extent programs of private firms. The U.S.

technical assistance effort requires the full participation of the university scientists. The supply response of university faculty to increased economic benefits should be significant if the magnitude of the increase is somewhat near parity with the 1960s.