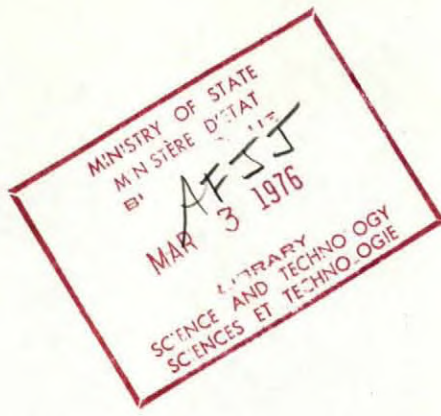


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TRAINING PROGRAM FOR  
UNIVERSITY RESEARCH ADMINISTRATORS

Findings of a survey conducted for the  
Ministry of State for Science and Technology

21697

by Professors Pierre-André  
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Research Group on the Future  
University of Quebec  
February 1974.

## I General introduction

One of the recommendations of the Report of the Senate Special Committee on Science Policy concerned improvement of the training of research administrators in the private sector of the economy as well as in the government and university sectors. The Committee suggested that the Ministry of State for Science and Technology establish a training program tailored to the needs of these administrators.<sup>1</sup>

As a result of this recommendation, the Bureau of Staff Training and Development of the federal government's Public Service Commission conducted a survey of the specific training needs of government research administrators. The Department of Industry, Trade and Commerce conducted a similar survey in the industrial sector. Both surveys consisted of samplings of opinion among research administrators.<sup>2</sup>

### The terms of reference of the survey

At the end of 1973, the Ministry of State for Science and Technology decided to conduct a third survey, covering the university sector. MOSST felt that it was necessary to determine the training needs of university research administrators, and to define precisely the content of an appropriate course.

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<sup>1</sup> A Science Policy for Canada, Report of the Senate Special Committee on Science Policy, volume II, Ottawa, 1971, p. 529; see also volume III of the Report, pp. 803-805.

<sup>2</sup> Studies on training needs, Bureau of Staff Training and Development, Public Service Commission, Ottawa, 1972; Paul E. Gishler: Increasing the effectiveness of industrial research managers, Department of Industry, Trade and Commerce, Ottawa, 1973.



MOSST therefore asked Professors Pierre-André Julien and Pierre Lamonde, of the University of Quebec's Task Force on the Future, to survey administrators in this field in some twenty universities in all ten Canadian provinces.

The Ministry specified an assortment of questions to be included in the questionnaire:

- a) Are there any existing courses which meet the needs of university research administrators? If so, where?
- b) Should the Canadian Association of University Research Administrators (CAURA) sponsor courses or seminars in university research administration, and if so, what should its role be?
- c) What subjects should a program of this type cover?
- d) Who should finance this program?
- e) Where should these courses or seminars be held?
- f) Who should teach these courses or organize the seminars?
- g) How many people would be interested in taking these courses or seminars?
- h) How many annual study sessions should be organized?

The time available for the survey was very short. It began in early December 1973 and was to have been completed by January 18, 1974. However, MOSST agreed to postpone publication of the report until the end of February 1974.

## The questionnaire

Our initial intention was to use a closed questionnaire. It quickly became apparent, however, that a questionnaire of this type did not offer the required flexibility, and that a survey guide, made up of open questions, was more appropriate to the type of survey needed.

Our starting-point was a number of working hypotheses:

- 1) It was, in our opinion, necessary to contact not only research administrators in central university administrations, such as vice-presidents of research, vice-rectors, etc, but also those in intermediate positions, such as directors of laboratories and research centres, since we felt that administrators in this second category would be just as likely to feel the need for specific training as those in the first.
- 2) We also established the hypothesis that, since university research administration is a comparatively recent field, there would be a considerable lack of clarity about its role, even amongst those involved in it. We therefore thought it important that the survey guide provide space for clarification of the objectives, role and responsibilities of a university research administrator.
- 3) We also assumed that, even though university research administrators evolved within a very specific system and in a very specific context, their work nevertheless contained a number of aspects common to that of their counterparts in the government and industrial sectors. It would therefore be useful to discern the similarities and differences between them.

These three working hypotheses were behind the wide scope of the survey guide, <sup>1</sup> which contains 37 questions most of them directed towards defining a university research administrator (questions 8 to 17 inclusive). The first seven questions enable the respondents to be identified. In questions 18 through 35, we attempt to determine the preference of university research administrators in terms of the type of training program which they would consider specific. Finally, questions 36 to 37 are intended to add an element of projection to the survey. <sup>2</sup>

### The Respondents

MOSST asked us to select approximately twenty universities in as many provinces as possible. We finally decided to visit 19 universities including the secretariat of the Quebec Universities Council, in all the provinces except Prince Edward Island. We interviewed 34 university research administrators, 25 of whom held high-level positions and 9 intermediate. The respondents were chosen with the co-operation of the Ministry. Priority was given to members of the Canadian Association of University Research Administrators (CAURA), but we did not necessarily limit ourselves to this organization. Appendix II contains a list of those interviewed, the name of their university and a description of their position. The average length of the interviews was approximately one hour and twenty minutes.

### The survey report

Our report is divided into four parts. In addition to this general introduction, there is an introductory summary

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<sup>1</sup> The survey guide will be found in Appendix I of this report.

<sup>2</sup> MOSST was consulted on all phases of the survey guide's compilation.

of the answers to the questions. Our conclusions and recommendations are contained in the third part, which also suggests a number of possible interpretations of some of the answers. The report concludes with two appendices.

We would conclude this general introduction with a few cautionary words. The survey was conducted in great haste, as a result of the extremely short deadlines set by the Ministry. It can therefore be considered only as a preliminary, exploratory survey. In addition, the report is essentially limited to description. Finally, our interviews obviously cannot claim to be a representative sample of the entire population of university research administrators.

Our research assistant, Mrs. Diane Morin-Chimisso, was responsible for conducting the interviews and compiling the answers. The survey guide was developed by Professors Julien and Lamonde, who also compiled the list of respondents and wrote the report.

## II Survey findings

### A Identification of the respondents

Questions 1 to 7 are intended to identify the respondents. The first three questions have already been mentioned in the general introduction; the remaining four (4 through 7) provide a slightly more detailed description, summarized in table 1. Let us illuminate a number of points:<sup>1</sup>

#### Length of tenure of office

The majority of respondents had occupied their positions for four years or less, and a substantial proportion of

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<sup>1</sup> We decided to omit question 6 from our analysis since the replies were not significant.

them for two years or less. We may assume that this situation reflects the fact that university research administration is still a fairly new field.

#### Original discipline

The most striking point in table 1 is the clear predominance of the exact sciences as the basic education of respondents in category I (central administration). This of course reflects the fact that these sciences still dominate the university research scene, whether this domination is measured in terms of research staff or funds, equipment, public recognition, or other factors.

#### Distribution of working time (question 7)

We found that a relatively large number of respondents devoted a significant proportion of their working time to activities other than research administration. Research and teaching were of particular importance for many.

#### B Definition of a university research administrator (question 8, 9)

During the preparation of the survey guide, and especially as a result of the preliminary testing carried out at that time, we became aware of the difficulty experienced by university research administrators in defining their role clearly. It therefore seemed important to add a number of questions to the survey guide which would help them achieve greater clarity in their conception of this point. Respondents were asked to define the principal objectives of a university research administrator, including their most important and most frequently performed duties.

#### The objectives of a university research administrator

(question 8)

The replies to this question were frequently lacking in clarity. There was a tendency to confuse the objectives and



Table 1

Identification of respondents (questions 4, 5, 7)

Positions (1)	Length of tenure				Original discipline				Distribution of working time						
	0-2 years	2.1-4 years	more than 4.1 years	Total	Chemistry	Other exact sciences	Admin sciences	Humanities	Total	Research admin			Research, teaching, services etc		
										0-50%	50.1-75 %	75.1-100 %	0-50%	50.1-75 %	75.1-100 %
i	11	8	6	25	11	6	2	6	25	7	5	13	6	5	2
ii	3	3	3	9	0	6	1	2	9	3	3	3	3	2	1
Total	14	11	9	34	11	12	3	8	34	10	8	16	9	7	3

1. Category I: university research administrators at the central university administration level (eg vice-president of research); category II: those at intermediate levels (eg directors of research centres)

the description of the duties. Nevertheless, a number of points emerge:

- The objective cited most frequently both by administrators in central administration and by those at the intermediate levels concerned the provision of administrative services to researchers. The objective stated was to give administrative assistance to the latter, especially when action had to be taken to obtain research grants. More than 27 out of a total of 34 administrators replied in this vein.

- Another, almost as frequently cited objective (24 respondents) concerned the research environment. The administrators stated that it was their objective to assure researchers an environment conducive to the development of high-quality research. The means to achieving this were leadership, co-ordination, flexible planning, and so on.

- The category I (central administration) administrators formulated two other objectives, although less frequently than the first two. Twelve saw themselves as liaison offers between the researchers and external sources of funds. Nine mentioned supervision as an objective; they stated that it was their responsibility to see that university research policies were respected and that the contractual conditions of research contracts were fulfilled. This liaison objective was not mentioned by administrators in category II, only two of whom cited supervision as an objective, and then primarily in terms of supervising the quality of research.

The fact that a very small number of respondents cited supervision as an objective is a significant indication of the type of administration preferred. Administrators apparently prefer a non-authoritarian type of administration, characterized by leadership, co-ordination, planning guidance, and so on.

Duties performed by the respondents (question 9)

This question appeared fundamental. It served as a point of departure for the comments which the survey guide elicited from the respondents not only with regard to the definition of their role but also concerning the difficulties they encountered, the academic training and experience which a university research administrator should have, the similarities and differences between their situation and that of their counterparts in government and private enterprise, etc.

To help the respondents to define their conception of the duties which they had to perform, we provided them with a list of nine possible duties (see appendix 1), for which they were to give a subjective appraisal of the relative importance and the amount of time spent on each (see table II).

Administrators in category I:

The most important duties for these administrators were the preparation and evaluation of research proposals, research planning and programming, the encouragement of research and, to a lesser degree, the recruitment of research staff. It should be noted that the answers about this last duty were influenced by the fact that an almost equal number of respondents were not involved with recruitment.

It should be pointed out that the fact that a duty was considered important does not signify that they devoted much time to it. They were unable to spend more than average or small amounts of time even on those duties considered important.

Table 2

Profile of duties

	Research planning and programming			Preparation and evaluation of research proposals			Preparation, evaluation and supervision of budgets			Staff				Encouragement of research	External communication	Professional activities	Committee work																															
										Recruiting		Co-ordination																																				
										Support	Research	Support	Research																																			
Importance	1	2	3	NA	1	2	3	NA	1	2	3	NA	1	2	3	NA	1	2	3	NA	1	2	3	NA																								
Time	1	2	3	NA	1	2	3	NA	1	2	3	NA	1	2	3	NA	1	2	3	NA	1	2	3	NA																								
M	7			NA	5	1			4					1			2				3				4				2								7	5	1									
I A	2	4			8	5			2	8	1		2				3				4	2			1	3			6	3			1	3			2	6			1	5						
L	6	1	3		3	3			3	3	3		3	4	5		7	3	1		4	3	5		3	1	2		5	4			6	9	3		4	9	4						4	2		
Tot.	15	5	3	2	16	6	3	0	9	11	4	1	5	4	5	11	11	3	1	10	10	5	5	5	7	4	2	12	15	7	0	3	9	12	3	1	6	15	4	0	8	14	3	0				
M	3				2				1	1				2			1				2				2				1								1	2										
A	5				3	1			1	2			2				3				3	1			2				3	1							1	3										
II L	1					1	1			3	1		2	4			2	1			2	1			2	1			4				3	1				6	1						2			
Tot.	9	0	0	0	5	2	1	1	2	6	1	0	4	4	0	1	7	1	0	1	6	2	0	1	6	2	0	1	4	4	0	1	3	5	1	0	0	6	1	2	2	7	0	0				

Key: Importance : Very : 1  
 average 2  
 little: 3

Time spent : much : M  
 average : A  
 little : L

NA: task not applicable to respondent

Table 3

## Desired training

Discipline		Exact Sciences	Humanities	Admin Sciences	Other(s)
Positions I (24)	basic training	16	1	10	7
	additional training	—	3	7	1
Positions II (9)	basic training	6	—	3	—
	additional training	—	—	3	1
Total <sup>1</sup> (33)	basic training	22	1	13	7
	additional training	—	3	10	2

- (1. One respondent in category I did not answer this question. The number of replies is greater than the number of respondents since several gave more than one field of basic training.

Administrators in category II:

This group unanimously accorded great importance to research planning and programming. Such unanimity was not found among those in category I. The other duties considered important by the administrators in category II were recruitment of researchers and the co-ordination of support and research staff.

Nothing conclusive emerged from the replies of this group about the time spent on various duties.

C Desirable training, experience and qualities  
(questions 10, 11, 12)

The purpose of these questions was to determine the ideal training, experience and qualities for a university research administrator, in the opinion of the respondents. The questions were regarded as complementary to questions 8 and 9 on the definition of objectives and duties.

Desirable training (question 10)

A large proportion of respondents in categories I and II indicated the exact sciences as desirable basic training for university research administrators. The humanities occupied last place. The strong showing of the administrative sciences should be noted; these were chosen frequently either as basic training or as supplementary training. The predominance of the exact sciences is hardly surprising in the light of the answers given to question 5, which revealed that a large proportion of the respondents had had their basic training in the exact sciences.

Desired experience (question 11)

The respondents were asked to indicate the experience which, in their opinion, a university research administrator ought to possess. A very large proportion (26 out of 33)<sup>1</sup> stressed the need for research experience in a university environment. The same number stated that university administrative experience was essential. Some 16 respondents, however, claimed that administrative experience in the government or the private sector was necessary. There was no significant difference between administrators in categories I and II in these answers.

Desired qualities (question 12)

A high proportion of respondents (26 out of 33) indicated administrative competence as an ideal quality for a university research administrator as well as scientific competence. The same number of respondents indicated leadership as a desirable quality, with the proviso that it should be flexible and not authoritarian; leadership should be manifested in an ability to inspire and motivate the researchers. Sixteen respondents also gave a feeling for diplomacy or understanding, and only 14 respondents named efficiency. These replies reconfirm that the respondents considered that the type of administration practised by a university research administrator should be essentially flexible and not authoritarian. There was no noticeable difference between categories I and II.

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<sup>1</sup> One respondent did not answer this question. This situation recurs quite frequently in the tables.

Internal or external recruiting (question 13)

According to 22 of the 25 respondents in category I, university research administrators came from within their universities, whereas 7 out of 9 of the category II administrators declared that they had been recruited from outside. We may assume that this diversity in point of view reflects the actual situation. It is quite plausible that, generally speaking, administrators in category I are recruited through internal competition and those in category II are selected on the basis of their prestige elsewhere.

Abundance of qualified candidates (question 14)

The majority of respondents in both categories indicated that it was difficult to find good candidates. Those in category I (central administration) were, however, less categorical in this regard. This is understandable in view of the emphasis placed by them on internal competition rather than external recruiting (see table 4)

Table 4  
Recruiting of qualified candidates

	Difficult	Neither difficult nor easy	Easy	Don't know
Respondent I	13	5	5	1
Respondent II	7	2	0	0
Total	20	7	5	1



E. Difficulties in performing duties and comparison with other types of research administrators (questions 15, 16, 17)

Difficulties (question 15)

In order to determine with greater accuracy the needs of university research administrators in terms of a training program, we asked the respondents what were the main difficulties encountered by administrators in the performance in their duties.

Table 5 reveals that respondents in category I considered that their greatest difficulties stemmed from lack of co-operation on the part of the researchers, whom they accused of being too individualistic and underestimating the role of research administration at the central administration level. It is, however, interesting to note that respondents in category II showed no such consistency: some mentioned lack of funds, other problems related to the administration of contracts, etc, but their replies were fairly evenly distributed among the six classes shown in table 5.

Comparisons (question 16 and 17)

In order to arrive at a better definition of the role of a university research administrator as well as his training needs, we asked the respondents if, in their opinion, there were significant differences between their duties and those of research administrators in the government or private sectors.

There was little significant difference in the replies obtained from respondents in categories I and II.

The main differences which emerged were in such areas as the definition of objectives, the type of research carried on, staff organization, and financial problems. These were more prevalent in the university sector. According to a majority of the respondents (25), research in government and private industry was organized on a much more hierarchical basis and the functions of those concerned were more clearly defined. In addition, there was a general feeling that the objectives in these sectors were also better defined and were oriented towards economic feasibility or the problems of society (24 respondents). Nineteen respondents considered the distinguishing feature of university research to be its less applied nature, stemming from the fact that its primary function was the training of students and the advancement of knowledge.

F Existence of appropriate courses and seminars  
(questions 18, 19, 20)

The remainder of Part II of this report corresponds to the section in the survey guide dealing with the main objective of our study: the desirability of offering a specific training program for university research administrators, and the goals, content and format of such a program.

We will look first at the replies to questions 18, 19 and 20. Question 18 asked the respondents if courses or seminars commensurate with their training needs were currently in existence in Canada. Question 19 invited those who responded in the affirmative to give their opinion of these courses. Question 20 asked about the desirability of setting up a training program for university research administrators. A summary of the findings is given in table 6.

Table 6

## Existence and desirability of a training program

	Question 18				Question 19				Question 20			
	Existence of appropriate courses?				Is this adequate?				Desirability of setting up a training program		For administrators	
Courses Positions	yes	no	don't know	no answer	yes	no	don't know	no answer	yes	no	present	and/or new
i	10	7	7	1	4	4	2	0	24	1	24	8
ii	2	2	4	1	0	1	0	1	9	0	8	1
Total	12	9	11	2	4	5	2	1	33	1	32	9

In question 18, 12 respondents were of the opinion that appropriate courses existed; 9 thought they did not, and 11 respondents did not know. Of the 12 who stated that appropriate courses existed, however, only 4 felt that they were adequate (question 19). All but one of the respondents thought that the establishment of a specific training program would be desirable and 14, moreover, took the trouble to stress the usefulness of such a step. It should also be pointed out that, while the majority of the respondents indicated that a program of this type would be useful to those currently holding administrative positions, 9 of them asserted that new administrators should also benefit from it.

G Objectives and content of the training program  
(questions 22, 23)

Objectives (question 22)

More than 60% of the respondents (90% of those in category II) admitted the need to refresh their general knowledge of research administration in order to improve their performance and provide better services to researchers. As a second objective, the program should provide a better overview of both present and future research policies of governments and other universities. Less than 20% of the respondents gave as a third objective better organization of university research, either to improve understanding of it outside the university or to make possible the use of more uniform and more effective machinery. In the case of training courses for candidates for positions in research administration the emphasis should be placed on knowledge of various types of administrative machinery in order to reduce the learning period and improve their effectiveness.

Content (question 23)

All were agreed that the program could vary according to the needs of the groups taking it, especially in accordance with the types of administrators and their experience.

However, there was general agreement on four series of topics, which we present in order of importance. The most important sessions would cover new methods of management such as PPBS, cost-benefit analysis, systems analysis, etc, and the application of these methods to the needs of administrators. The second series of topics would deal with various administrative procedures such as ac-

counting problems, data processing, patent laws, contract procedures, etc. Equally important, the administrators would like to take courses in research policies and the functioning of the research programs of their own universities, governments, other universities, private foundations, industry, etc. These three categories of courses are the most important.

Other subjects such as public relations, management of administrative support and research staff, scientific problems, etc, would be of much lesser importance (see table 7).

Table 7

Topics for a research administration training program

Topics	Positions	I	II	Total
New management methods		17	5	22
Other administrative procedures		14	4	18
Knowledge of research policies		15	3	18
Others - public relations		2	2	4
- staff relations		7	4	11
- history of science		5	1	6
- other		1	2	3

H Format, time and place of the program  
(question 24, 25 and 26)

This section deals with the concrete details of the training program. In view of the favourable reception given to the idea of such a program by the majority of respondents, we must now decide what form it should take and when the

"courses" should be given, who will organize them, and how and for whom, they should be given.

Format of the program (question 24)

The respondents expressed their preference for sessions in the form of seminars or workshops, in which the emphasis would be on discussion; more than half wanted sessions of from two to three days and almost 80% were in favour of courses of six days or less.

Time and place of the program (question 25 and 26)

With regard to the times of the year considered best for the training program, there was a general preference for the spring over all other seasons (usually April-May) then, in descending order of preference, autumn (October-November), summer (especially June) and winter; the majority of respondents felt that the date for the beginning of the program should be fixed as soon as possible. No specific preferences emerged as to where the program should be held; all that was wished was that it be in a quiet, pleasant and easily accessible place.

I The organization responsible for the program  
(question 27, 28 and 29)

Overall responsibility (question 27)

Overall responsibility was most often given to two groups: federal government agencies (15 respondents, 11 of whom specified MOSST) and CAURA (14 respondents, two of whom added that this body should have joint responsibility with AUCC (Association of Universities and Colleges of Canada); ten respondents opted for the universities, with the proviso that they adopt a position of neutrality

with regard to the implementation of the program. It should be noted that these categories were not mutually exclusive.

Responsibility for implementation (question 28)

The order of preference expressed by the respondents is the reverse of that for overall responsibility. Fourteen respondents entrusted implementation to the universities, 12 to CAURA, including 2 who would prefer that it be in conjunction with AUCC, and 11 chose federal government agencies, including 5 who specified MOSST. As in the preceding question, responsibility could be shared between the various organizations.

The role of CAURA (question 29)

The answers to questions 27 and 28 reveal that CAURA was chosen to play an important role in overall responsibility for the program and in its implementation. Nevertheless, a substantial proportion of the respondents doubted the ability of this body to organize a program of this nature on its own. Consultation of CAURU was, however, desired by virtually all respondents.

J Financial resources and process of consultation  
(questions 30-31)

Financial resources (question 30)

Many of the respondents were of the opinion that the universities, with the help of AUCC (the Association of Universities and Colleges of Canada), should provide the money. Others called on the federal or provincial governments to do so. Only a small minority suggested that the expenses should be borne by the participants themselves.

Consultation (question 31)

With regard to the process of consultation required to set up the training program, it appears that the interested parties should be the first consulted, in other words research administrators, then CAURU, the universities and their research centres, and finally a whole series of less-frequently mentioned organizations, such as government research councils, AUCC, etc.

K Miscellaneous questions (32 through 35)

Instructors (question 32)

Question 32 asked who should give the courses, seminars, conferences and other elements of the training program. Table 8 summarizes the findings. If the respondents' answers are viewed as a whole, 12 thought that the instructors should be research administrators, without specifying the type. Eleven others wanted them to be recruited from the ranks of university research administrators, whereas 16 indicated that they should be lent by the government sector, and 12 thought that they could come from abroad. In the latter case, many respondents added that foreign specialists should remain in the minority in order to safeguard the national character of the program.

With regard to the specialists invited, wherever they might come from, the respondents emphasized the necessity for them to act as participants for resource persons, and that they should place the emphasis on discussion rather than formal presentations. They also demanded that they should have considerable experience and enjoy substantial recognition. Several respondents specified that these specialists should possess thorough, specific knowledge of university research.



Finally, it should be noted that, although 10 respondents from category I would like to have university professors as specialists, this choice was not expressed by any respondents in category II.

Table 8  
Where the experts should come from

Origin Positions	General research administra- tion	University sectors		Government	Industry	Abroad
		Professors	Research administra- tors			
I (23)	7	10	7	11	4	10
II (9)	5	0	4	5	4	2
Total	12	10	11	16	8	12

Connections with other training programs in administration  
(question 33)

The majority of respondents (60%) were of the opinion that certain portions of the program could be given in conjunction with other programs, for example those dealing with management sciences. The other respondents, on the other hand, saw no useful purpose in a combination of this type or specified that it should be accomplished merely by inviting appropriate resource persons.

Estimates of potential participants (question 34)

We asked the respondents to estimate the possible numbers of university research administrators in their universities likely to participate in a program of this type. The answers to this question were extremely vague. A number of respondents thought only of their own position and had no idea how many other administrators would be interested. Others could envision interest on the part of department heads and directors of research projects, while preferring to remain conservative in their estimates. In 17 universities or research centres, from 1 to 5 possible participants were mentioned, in 7, between 6 and 10, and in 5, between 11 and 15. Only two respondents gave between 25 and 40 potential participants. The totals give the following result:

<u>Administrators</u>	<u>Minimum</u>	<u>Maximum</u>
Category I	109	157
Category II	12	21
Total	121	178

These figures are probably too low, in view of the fact that the respondents tended to misjudge the situation in research administration insofar as it applied to positions not directly connected with theirs. Given, moreover, the fact that our respondent population was not taken from all Canadian universities, the potential clientele is doubtless greater than the numbers suggested.

A program open to other types of administrators?

(question 35)

Should these courses be offered only to university research administrators? The respondents insisted that the program should be conceived primarily with their particular interests in mind. Nevertheless, 50% of them were agreed that other participants could be invited if certain sessions were of interest to them, and especially if they came from the government or industrial sectors.

M Future Prospects (questions 36, 37)

Question 35 dealt with possible changes within the next five years in university research administration. The last question asked the respondents what major administrative priorities they hoped to achieve during the next five years.

Changes (question 36)

The majority of respondents (18) anticipated significant changes and 12 foresaw minor changes. Only 3 thought that there would be no changes.

According to the respondents, university research administrators would increasingly be called upon to define

research objectives, to carry out planning for this research and to make it more efficient. Particular attention would have to be given to rationalization of the use of resources in order to maximize performance, as well as to a greater use of appraisal methods such as cost-benefit analysis in the evaluation of research programs and projects. Several respondents specified that these changes would be brought about by the growing desire of governments to supervise closely the use of public research funds. Several also anticipated that financing would tend increasingly to take the form of contracts rather than grants, and that a growing number of multidisciplinary teams would result in a corresponding increase in the complexity of university research administration. A number of respondents foresaw a change in the university's role in society.

Administrative priorities (question 37)

The answers to this question indicated that, in general, those interviewed wanted to work within a more precise and better structured framework in order to improve the services they provide and the quality of research as well as to cope better with the anticipated changes. Several expressed a desire to develop specific policies, for example with regard to interdisciplinary programs, patents, publications, the dichotomy between pure and applied research, research staff, etc. Others emphasized the need for access to information on research programs and projects in progress, available resources (through such means as inventories), etc, to give proper guidance to the research.

### III. Conclusions and recommendations

#### Conclusions

Before proceeding to a number of recommendations, it is worthwhile reiterating some of the findings of the survey which seemed to us particularly noteworthy.

Let us first of all summarize the general profile of our respondents: they had held their positions for a relatively short time, the vast majority had received basic training in one of the exact sciences, and several still spent a significant proportion of their working time on activities other than research administration.

One of the most striking results of the survey was that the respondents experienced considerable difficulty in defining the role of a university research administrator. In addition, a number of them tended to confuse ideal objectives with their actual responsibilities.

With regard to objectives, moreover, the respondent did not give priority to the supervision of research. They preferred a non-authoritarian type of administration, characterized by leadership and co-ordination. This performance was corroborated by the replies to question 12 on desired qualities, in which a majority of the respondents indicated that the leadership exercised by a university research administrator should not be authoritarian but extremely flexible. Several others added that he should have an instinct for diplomacy and show a good deal of understanding for the difficulties of researchers.

The respondents had great difficulty in defining their responsibilities precisely. We may assume that if our survey guide had not included very explicit categories

of responsibility, the respondents would not have been able to express themselves clearly on this point.

In terms of the difficulties encountered by a university research administrator in the performance of his duties, we noted that the respondents in category I (central administration) mentioned the lack of co-operation on the part of the researchers; these respondents seemed very unsure in their roles and complained of being misunderstood by researchers, who, they said, underestimated the value of their services and were very individualistic. This lack of assurance was, however, not apparent among respondents in category II (research centre administrator, etc.)

All but one of the respondents felt it advisable to establish a training program for university research administrators. The topics suggested were, in order of importance: new methods of administration (PPBS, cost-benefit analysis, systems analysis, etc.), traditional administrative practices (accounting, data processing, patent laws, etc), research policies and the role of research (governments, universities, industry, etc). It should be noted that only seven of the respondents in category I suggested courses or seminars on relations with research staff; this contrasts strangely with the replies concerning the difficulties, which emphasize the problem of relations with researchers.

Another paradox in the list of suggested topics concerns the priority accorded to supervision and planning procedures (PPBS cost-benefit analysis, etc), since the respondents had emphasized the need for flexible administration based on leadership rather than supervision in their answers to the questions on the goals and qualities of a university research administrator.

Of the various types of training program, short courses (lasting less than six days) were preferred in which the emphasis would be on discussions. The preferred time for these was April or May. It was felt that overall responsibility for the program should rest with, in order of preference, the federal government (MOSST was frequently mentioned) or the CAURA, followed by the universities. It was suggested that the task of actually carrying out the program be given to the universities, CAURA or the agencies of the federal government, in that order. There were frequent suggestions that responsibility be entrusted to more than one organization.

#### Recommendations

Recommendation I: A special program should be established

It is clear from this report that the existing general courses and seminars on the problems of administration are inadequate, and that a special program should be established for existing university research administrators and for candidates for administrative positions. Candidates could round out the program through existing courses in other university programs, such as management, personnel administration, and so on. Although initially designed for university research administrators, the program could be open to other interested persons.

Recommendation 2: Over a three-year period, with two sessions per year, each lasting three to four days

The program could be spread over a three-year period with two sessions per year, making six sessions in all. One of the sessions would be held at the beginning of October, and the other at the end of April or the beginning of May.

The sessions would last for an average of three to four days. They could be repeated subsequently if the need became apparent.

Recommendation 3: Held in a few easily accessible centres outside the universities

These sessions would be intensive. They would be held in places with both classroom and accommodation and dining facilities. Possible suggested locations would be the Banff Art Centre for the Western universities, a comparable site in the Toronto area for the Eastern Anglophone universities, and the Centre Coopératif Desjardins or the Centre d'Art d'Orford for the Eastern Francophone universities. Such an arrangement would satisfy those respondents who indicated a desire for quiet and at the same time easily accessible locations to facilitate sustained and effective work.

Recommendation 4: Seminar format

Almost all of these sessions would take the form of seminars in which resource persons would present practical problems or cases which would then be discussed by the group.

Recommendation 5: Three series of topics

The program would be divided into three series of topics. The first series would attempt to define the role of a research administrator, his responsibilities in the areas of administration, management and the leadership of researchers, and his short and long term objectives. The second series would deal with management methods and administrative practices, including both new and more traditional methods. The last, but no less important series, would define current scientific policies and new trends as well as ways to participate in or adapt them.



Recommendation 6: The resource persons should come from different research areas

The resource persons should be familiar with research-related problems in government and industry as well as the universities. For example, knowledge of an administrative technique should be complemented by some experience in applying it to research.

Recommendation 7: A committee of MOSST should be established to set in motion a process of consultations with provincial governments, AUCC, CAURA and the universities on the overall responsibility for and the implementation and financing of a program of this type

The respondents were not all explicit on these questions and ignored the problems of jurisdiction involved in a program of this type. We were therefore unable to formulate any recommendations on these points other than the above.

Appendix I

Interview Guide

## Interview Guide

### I - Identification of the interviewee

- 1) Name of the University
- 2) Name of the interviewee
- 3) Position held
- 4) For how many years has he been holding this position?
- 5) What is his main professional specialization?
- 6) What was his previous position?
- 7) In his present position, which proportion of his time does he spend on the administration of university research?

### II- Basis of needs

- 8) What are the main objectives of university research administration? be as precise as possible.
- 9) See annex on tasks
- 10) What type of academic training should such an administrator possess?
- 11) What kind of professional experience should he have?
- 12) What are the most important qualities such an administrator should possess?
- 13) Have your university research administrators progressed through the organization, or have they been recruited from elsewhere?
- 14) Do you think it is easy or difficult to find qualified candidates to fill the positions of university research administrators?
- 15) What are the most frequent problems or difficulties such an administrator encounters in the accomplishment of his tasks?
- 16) Are there some significant differences between the tasks of a university research administrator and those of a research administrator in private enterprise? Explain.
- 17) Are there some significant differences between the tasks of a university research administrator and those of a research administrator in the governmental sector? Explain.

- 18) Are there presently, in Canada, courses or seminars which satisfy the needs of university research administrators? If yes, where? If no, pass on to 20.
- 19) If yes, do they constitute a sufficient training program? Describe these courses. (If the answer is that they are sufficient, pass on to 34).
- 20) If no, should there be any specific courses or seminars for university research administrators?
- 21) If the answer to question 20 is no, explain.

IF ANSWER TO QUESTION 20 IS YES - PROCEED:

- 22) What should be the main objectives of such a training program?
- 23) What should be the main topics of such a program?

III- Organization of a training program for university research administrators

- 24) If a training program for university research administrators should take place, under what form should it be? Example : 2-3 day seminars, 2 - 3 week courses, etc. Ask the interviewee to be as precise as possible.
- 25) At which period(s) of the year should such a program take place?
- 26) At which date should such a program begin?
- 27) Which organization should have the general responsibility (sponsorship) of such program?
- 28) Which organization should execute such a program (University, school, department) ? Precise as much as possible.
- 29) What should be C.A.U.R.A.'s role(s) in the creation and the implementation of such a program?
- 30) From where should the financial resources be taken, for the creation and the implementation of such a program?
- 31) What consulting procedures should be followed for the creation of such a program?

- 32) Who should give the courses and/or the seminars which would constitute such a program (example : type of academic background and experience of professors, from which field should they be chosen etc.) ?
- 33) Should there be any links between this program and other training programs for administrators? Explain.
- 34) In an institution like yours, how many university research administrators are likely to participate in such a program?
- 35) Should these courses (seminars) be given only to university research administrators?  
If yes, why?  
If no, to which other types of administrators should they be offered and why?

IV- Perspectives

- 36) Insofar as you are concerned, do you believe university research administration will undergo any changes within the next five years? Explain.
- 37) Relative to the interviewee, which great administrative priorities does he wish to realize within the next five years?

ANNEX

QUESTION

Here is a list of tasks which might be accomplished by a university research administrator. Would you, please, indicate both the relative amount of time you devote to the accomplishment of each task during a year, and the relative importance each one has, according to you.

A lot      Average      Little      Great      Average      Little  
of time   time      time      importance   importance   importance

Research planning and programming (definition of objectives, goals and research programs)

\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Preparation and examination of proposals (Levels of research projects)

\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Budgets preparation, examination and control

\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

	A lot	Average	Little	Great	Average	Little
	of time	time	time	importance	importance	importance

Recruiting, hiring and evaluating of:

- support personnel	_____	_____	_____	_____	_____	_____
- research personnel	_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

Personnel management (planning and coordinating activities, human relations, etc.)

-support personnel	_____	_____	_____	_____	_____	_____
-research personnel	_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

Research Promotion (towards eventual sponsors, intermediate bodies, governments, etc.)

_____	_____	_____	_____	_____	_____
-------	-------	-------	-------	-------	-------

Comments: \_\_\_\_\_

A lot      Average      Little      Great           Average      Little  
time      time      time      importance      importance      importance

Communication and information (press conferences, conferences, etc.)

\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Participation to professional activities related to university research administration

\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Committee work

\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Others (specify)

1) \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



A lot    Average    Little    Great       Average    Little  
of time   time    time    importance   importance   importance

2)

\_\_\_\_\_

Comments: \_\_\_\_\_

3)

\_\_\_\_\_

Comments: \_\_\_\_\_

4)

\_\_\_\_\_

Comments: \_\_\_\_\_

5)

\_\_\_\_\_

Comments: \_\_\_\_\_

