EDUCATION AT IIASA

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EDUCATION AT IIASA

I. ORIENTATION

This report is a product of a study of current and potential education programs at IIASA conducted by Dianne Goodwin and James Vaupel with the assistance of Olivia Carydias. The study was begun in July 1982 and completed on January 5, 1983.

The first section of this report focuses on the Young Scientists Summer Program: the current program is evaluated, several recommendations for incremental improvements are suggested, and a "Summer Roundtable" program that could either supplement or replace the current program is proposed.

The second section of this report considers opportunities for offering short courses (of one to three weeks' duration) at IIASA. Two broad options are described. IIASA could initiate a modest program of short courses based on IIASA research projects. In addition, IIASA might launch a program of East/West Colloquia.

We considered a long list of options for education at IIASA. Most were easily ruled out based on the criteria we developed or the consensus of opinion we received. This report describes the relatively few remaining options worth further consideration.
II. THE YOUNG SCIENTISTS SUMMER PROGRAM

A. Background

The Young Scientists Summer Program, which began in 1977, was initiated to encourage interdisciplinary, intercultural research cooperation between bright young scientists in their formative years. This Program brings about 20 younger scholars, generally between 25 and 35 years old, to IIASA for three months from mid-June to mid-September. The participants' travel and living expenses are largely covered by the NMO's: in 1982 IIASA provided 150,000 schillings of supplemental funds, as well as providing a dean (Tibor Vasko), an administrative coordinator (Olivia Carydias), office space (mostly in the Kaisergang), secretarial and computer support, etc. Each of the participants is assigned to a research project at IIASA. In addition, the participants attend a series of lectures presented by leaders of research projects: there were 12 such lectures in 1982. Robert Voll gives a two-day Public Speaking Workshop that almost all the summer scholars attend—and enthusiastically praise. Some of the young scientists present seminars to the summer group; a few give lectures intended for all IIASA scientific staff. A report on and assessment of the 1982 program is attached (Appendix 1).

B. Criteria for Evaluation

The history of the summer program and the nature of IIASA's general purposes and principles suggest the following criteria.

1. Participation in the summer program should be spread among all the national member countries, with East/West balance and heavier representation from the United States and the Soviet Union.

2. The participants should be not only exceptionally intelligent and diligent, but also:
   a) Imaginative, intellectually adventurous, and likely to become research path-breakers.
   b) Willing to make the heavy investment of time and energy necessary to engage in interdisciplinary research.
c) Interested in doing research that is relevant to policy problems.
d) Congenial, cooperative, and eager to actively collaborate in joint research efforts with scholars from other disciplines and countries to produce joint research seminars and papers.
e) Fluent in English.

3. The summer program should be an asset and not a burden to IIASA's scientific staff.

4. The summer program should have the full support of IIASA's NMO's.

5. The participants in the summer program should enjoy it, profit from it, and look back on it and IIASA fondly.

C. Basic Requirements

Because participants' travel and living expenses are largely covered by the NMO's, the summer program has cost IIASA very little: in 1982, IIASA only provided 150,000 schillings of supplemental funds. However, IIASA also provides a dean (Tibor Vasko in 1982) and an administrative coordinator (Olivia Carydias since 1977). Both jobs are essential to the success of the program; both are time-consuming if done well. Appropriate management of the program probably requires the equivalent of 3 months of effort both by the dean and by the administrative assistant.

D. Options for Incremental Improvements

1. **Problem:** U.S. participation in the summer program has fallen off. In the four summers from 1977 through 1980, five to seven participants came from the U.S., but in 1981 only one did and in 1982 none did.

   **Recommendation:** Advise the U.S. NMO about this problem. (Jim Vaupel will discuss it with Howard Raiffa and Alan McDonald).

2. **Problem:** There has been little or no participation in the summer program from the U.K. (only one participant in six years), Canada (only one participant), and Japan (no participants).
Recommendation: Advise the leaders of the U.K., Canadian and Japanese NMO's about this problem. (Dianne Goodwin will draft appropriate letters to be signed by C.S. Holling.)

3. Problem: Some promising younger scientists do not participate in the summer program because their NMO's are not able or willing to provide funds for travel and living expenses. This problem underlies the low participation of younger scientists from the U.S. and perhaps from the U.K., Canada, and Japan as well. Furthermore, it is related to another problem: because the NMO's provide the funds for the summer program, the NMO's select the participants they are willing to support. These participants are not always the best participants in terms of IIASA's evaluative criteria.

Recommendation: Provide a small fellowship fund to support a few summer scientists who would not otherwise be able to participate. If 10,000 schillings is budgeted for travel expenses and 20,000 schillings per month for living expenses, then the average participant could be supported for 70,000 schillings. Thus, five fellowships could be supported for 350,000 schillings and fifteen fellowships for 1 million schillings. The degree of control IIASA has over bringing the best young scientists to IIASA will hinge on the amount it is willing to contribute in this area. This fellowship program could be initiated in the summer of 1984.

4. Problem: Most of the participants in the summer program dislike being labeled "young scientists".

Recommendation: Change the name from "young scientists" to "junior fellows".

5. Problem: Some of the participants in the summer program come to IIASA with a very specific research agenda: they want to continue their own research with some interaction with IIASA scientists. Other participants have only vaguely defined interests: they want to be assigned to a project and to be closely supervised. Only after
arriving at IIASA, have participants made these inclinations clear. By that time, supervisors had been assigned—and often there were mismatches between the inclinations of the participants and their supervisors.

**Recommendation:** Change the application form so that potential participants can indicate whether (1) they have a clearly defined research agenda or (2) they would like to be assigned to a research task. Applicants who would like to come to IIASA to work on their own research project should submit a 500 word description of it. Research leaders, in evaluating applicants, can then take this information into account in deciding which applicants to accept.

6. **Problem:** Many of the participants felt poorly integrated into their research groups and consequently into IIASA research in general. Some thought they were inadequately or inappropriately supervised.

**Recommendation:** It is essential that potential supervisors play a major role in candidate selection. IIASA scientists should select one or more candidates whom they are interested in supervising and spending the necessary time with to involve them in their research. No applicant who wants to do research on his or her own project should be accepted unless there is an IIASA scientist who is interested in supervising that specific project. Potential supervisors should be clearly advised about the responsibility they are assuming. If there is insufficient interest among IIASA staff to supervise participants, the YSSP as it now stands should be terminated and option 2 (below) considered.

7. **Problem:** Some IIASA scientists who would like to have the help of a younger scientist during the summer find that none of the applicants have the right skills and interests.

**Recommendation:** IIASA scientists who would like help on a specific project should write a short description of the project and the kind of research assistance they need. Such requests would be included in the pamphlet sent to potential applicants.
8. **Problem:** Although the application form and pamphlet stipulate that the summer program is for young scientists who are 2nd or 3rd year doctoral students, many of the participants are above age 30 and have their doctorate already. Indeed, in 1982, the participants were, on average, 31 years old, a quarter of them were Ph. D.'s and several had not been students for years. Many of the senior participants resented being treated as "young scientists".

**Recommendation:** No applicant should be accepted who has completed his or her doctorate or who is above 30. There are other channels by which older scientists can come to IIASA: the "young scientist" program should be restricted to younger scientists. A letter explaining this restriction should be sent to those NMO's that have sent older participants to IIASA.

9. **Problem:** The pool of applicants considered by IIASA is small. In 1982, IIASA chose 22 participants from 40 applications. (Note: individuals interested in participating in the young scientist program submit their applications to their NMO's. Each NMO then sends to IIASA the applications of those people it would be willing to support.)

**Recommendation:** Request each NMO to submit the application of at least two and preferably three or four potential participants for every participant it is willing to fund.

10. **Problem:** The pool of applicants in many of the NMO's is small.

**Recommendation:** In appropriate countries, an application form and pamphlet should be sent to all IIASA alumni and friends, together with a cover letter asking their help in recruiting outstanding candidates.

11. **Problem:** Some of the participants and supervisors thought that 3 months was too short a time to complete their research tasks.

**Recommendation:** Some of the younger scientists could be accepted for 6 months rather than just 3 months. The three-month program runs from mid-June through mid-September: the six-month program would run from mid-June through
mid-December. If an NMO was willing to extend its support for 6 months and if the research supervisor at IIASA agreed to the 6 month period, this extension would strengthen IIASA's productivity at low cost. It was recommended above that IIASA consider funding 5 to 15 fellowships. If 3 fellowships were provided for 3 months and 2 for 6 months, the annual cost of this fellowship program would be 470,000 schillings (rather than the 350,000 schillings for 5 fellowships for 3 months). Five fellowships could be provided for 3 months and 5 for 6 months at an annual cost of about a million schillings.

12. Problem: Many of the participants complained that they were notified very late about their acceptance.
Recommendation: The deadline for the submission of applications to IIASA should be January 31st rather than February 26th; the deadline for IIASA decisions about participants should be February 28th rather than April 2nd; the deadline for IIASA sending letters of notification should be March 10th rather than April 26th. In addition, a short telegram should be sent to all accepted applicants on March 1st.

13. Problem: Summer program participants find it difficult to gain access to IIASA's computer terminals. IIASA scientists feel participants in the summer program stress a computer system which is already overtaxed.
Recommendation: Given current constraints on computer usage it would be advisable to select participants whose assignments would involve a minimum of computer usage. By the same token it would be advisable for IIASA supervisors to design summer scientist work programs which require limited computer usage.

14. Problem: Fragmentation of responsibility for the summer program has produced a variety of delays and misunderstandings.
Recommendation: The dean and the administrative coordinator should be given primary responsibility for the entire program, including publicity, communication with NMO's, recruitment, placement, and selection of supervisors. (The dean and
coordinator should, of course, cooperate and share relevant information with appropriate IIASA offices, including the Secretariat and Personnel Services.) In the past, a dean and coordinator were usually appointed in April. These positions should be full-year (but part-time) positions, in each case with the allocation of 3 months (or 6 months for a six-month program) of effort spread, unevenly, over the entire year.

E. A Summer Roundtable Program

The fourteen recommendations made above are options for incremental improvements in the existing summer program. This section describes an option for supplementing or replacing the existing program with a different kind of program.

Problem: Many of the participants in the summer program regret not working more closely. Relatively little collaborative research of any sort has been done; virtually no joint research has been produced by younger scientists from Eastern Europe and the Soviet Union working together with younger scientists from Western Europe and North America. This is particularly disappointing in light of the fact that cooperative research was originally a program goal.

Opportunity: Younger scientists could help IIASA explore emerging research topics that might develop into a larger IIASA project. Furthermore, IIASA could help younger scientists by introducing them to emerging research topics that might become a focus of their research careers—for the next thirty or forty years!

General Proposal: Each summer, 12 to 15 younger scientists would be recruited from various IIASA countries and from several different disciplines to work together on a common research project. The roundtable participants would work under the supervision of at least two IIASA scientists, at least one from Eastern Europe or the Soviet Union and at least one from Western Europe, North America or Japan. A number of distinguished scholars would come to IIASA for periods of several days to several weeks to interact with
the roundtable participants. The participants would meet in a twice-weekly seminar, as well as having weekly individual discussions with other supervisors.

Specific suggestions: Anatoli Yashin and James Vaupel would be willing to organize such an international, interdisciplinary roundtable to meet from May through July of 1984. The topic would be heterogeneity; the participants and distinguished scholars would be recruited from the disciplines and fields of mathematical demography, labor economics, health planning, theoretical ecology, event-history sociology, petroleum exploration geology, epidemiology, reliability and maintenance engineering, criminal justice policy, and biomathematics.

A second possible roundtable might focus on the upcoming Antarctic treaty renegotiations. Participants and distinguished scholars could have backgrounds in mineral geology, ecosystem analysis, negotiation, natural resource economics, international law, computer modeling, political science, and policy analysis.

Cost: The full cost of such a roundtable would total roughly 2 million schillings. This cost includes travel and salary for 12 to 15 younger scientists, travel and per diem for 6 to 10 distinguished scholars, 4 or 5 months salary for two organizers/supervisors, secretarial assistance and overhead.
III. A SHORT-COURSE PROGRAM

A. Background

In 1979 the Ford Foundation provided IIASA with about 400,000 schillings that was used to subsidize two short courses, one on migration analysis and one on energy and environmental systems. A brief report by Arnold Lieberman on these educational activities is appended to this report (Appendix 2). We have not been able to find any other IIASA report on short courses.

In conducting our study, we interviewed numerous scientists at IIASA, several NMO representatives, and a variety of individuals involved in offering short courses at such diverse institutions as the Bulgarian Institute of Social Management, the Center for Applied Studies in International Negotiations, the International Management Development Institute (IMEDE), Management Center Europe, the International Management Institute (INSEAD), the University of Pennsylvania, the University of North Carolina, Princeton University, Duke University, and Harvard University. We also interviewed individuals from several specialized consulting firms as well as senior executives attending an international education conference. In addition, we received written responses to a questionnaire from 24 IIASA scientists and 9 NMO representatives. We identified 9 potential candidates for administrator of an education program who have extensive experience in running similar programs. We discussed prospects for IIASA at length with six of these candidates. We read through innumerable brochures and program descriptions that we have on file. Written records of many of our discussions and observations are also on file.

B. Criteria for Evaluation

Our discussions made it clear to us that it is crucial for IIASA to carefully define the principles and purposes of a short-course program. We recommend the following criteria:
1. The program should be self-supporting. Given IIASA's limited resources and pressing needs, it is probably neither feasible nor wise to launch an education program that will be a major drain on IIASA's budget. Funds for a short-course program might be raised through tuition, grants, or increased NMO contributions. IIASA may want to supplement such funds with some seed money to get the program started, but a program probably should not be initiated unless it seems likely it could be self-supporting within three years.

2. The short courses should be unique. So many short courses are being offered by so many competent, established and aggressive organizations, it seems unlikely that IIASA could successfully compete unless IIASA's courses are different from courses being offered elsewhere. Furthermore, if IIASA duplicates existing courses, IIASA will not be making a major contribution to education. Finally, direct competition with existing programs is likely to make the leaders of these programs hostile to IIASA and perhaps angry enough to complain to their governments and NMO's.

3. IIASA is an East/West institute: the short-course program should build on this. Lecturers and participants in a short program should come from a mix of IIASA countries; interest in the program should be high in both East and West.

4. The courses should fit IIASA's style and image: they should be analytical, they should be relevant to policy-makers, and they should emphasize the theme of patterns of change, structural transformation, and adaptability.

5. The short-course program should enhance IIASA's prestige, influence, and reputation. The program should not only be of the highest quality, but it should also have a certain grandeur and aura of vision. The lecturers
and participants should be leading scholars, outstanding teachers, ranking officials, influentials.

C. Option 1: Courses Based on Research Projects

IIASA has offered some short courses in the past, notably in migration and in energy, that have been based on on-going research projects. Opportunities of this kind will continue to arise. In the coming year, Andrei Rogers will lead a short course in Bulgaria on migration; Folke Snickars and others will offer a course in Sweden based on IIASA's work in regional planning. (Brief descriptions of these two courses are attached to this report (Appendix 3)). Manfred Grauer has expressed interest in giving a short course on computer-aided methods for making decisions when there are multiple, competing objectives.

In addition, Michael Staley and his colleagues could offer training workshops in adaptive environmental management. Two such workshops might be offered each year, each consisting of three sessions of a week's duration spread over several months.

Finally, William Urey has expressed interest in offering some negotiation training workshops in conjunction with the emerging negotiation project. This seems to be an exciting prospect, although details remain to be worked out.

Thus, a short-course program could be initiated at IIASA consisting of training workshops in adaptive environmental management and in negotiation and of occasional courses that naturally grow out of on-going research projects. Such a program would require little manpower in addition to the staff of the various projects. Indeed, it would probably be sufficient to hire an "administrative coordinator" for the program and a part-time secretary. The coordinator would assist the IIASA researchers who are offering short courses by advising and helping them on management, recruitment, promotion, fund-raising, taking care of lecturers and participants when they are here, and so on. The coordinator would have to be a competent administrator and should have some background in managing short courses.
D. Option 2: East/West Colloquia

In addition to courses based on research projects, IIASA may want to launch a special short-course program called "East-West Colloquia". These colloquia, which could last from one to three weeks, would be taught by lecturers from both East and West; the participants would also come from both East and West.

Illustrative topics might include:

-- How senior decision makers in East and West approach major international trade agreements: planning processes, policy-making procedures, goals and strategies.
-- How business executives in East and West approach specific trade contacts, (in the context of international trade agreements).
-- East/West perspectives on alternative kinds of policy tools for environmental protection.
-- Planning and control in extremely large industrial organizations: lessons from East and West on centralization, incentives, and performance.
-- Long-range planning for medical resource allocation: perspectives and strategies from East and West.

In short, the purpose of the East/West colloquia would be to foster the interchange of ideas, perspectives, and policy options and to encourage interdisciplinary, cross-cultural, mutual learning about interdisciplinary, cross-cultural, mutual problems. Such a colloquia program would clearly meet most of the criteria described above: the colloquia would be unique, they would build on IIASA's East/West foundation, they would fit IIASA's style and image, and, if done well, they would enhance IIASA's prestige, influence, and reputation. The key question is whether an East/West Colloquia program would be self-supporting. Our impression is that it is likely to become self-supporting—if a sufficiently aggressive, persuasive, and experienced entrepreneur could be attracted to IIASA.
E. Three-Year Trial

It is probably unreasonable to expect that a short-course program—whether based only on courses arising out of IIASA research projects or also including East/West Colloquia—would be self-supporting from the outset. Because of the time and administrative continuity required to set up a short-course program, we recommend that the administrator of the program be hired for a three-year term, beginning, say, July 1, 1983. A searching evaluation of the performance and prospects of the program should then be completed in January or February of 1986. If, at that time, it does not look as if the short-course program will become self-supporting in the near future (or if the program fails other criteria), then the expectation would be that the administrator's contract would not be renewed and the program would be wound down and terminated.

F. Staffing Requirements

As noted above, a short-course program based on IIASA's research projects would probably only require an administrative coordinator and a part-time secretary.

The more ambitious program including East/West Colloquia would require an administrator with substantial marketing and management ability, an administrative assistant, and a full-time secretary. In addition, the administrator would probably need the regular advice of a half-time "dean". The dean should hold a Ph. D. and have a background in scientific research and in education: the dean would advise the administrator on the design of East/West Colloquia, would help recruit faculty, and would strive to insure that the program met the highest academic standards.

The division of responsibility and concern would, then, be roughly as follows. The administrator would principally worry about marketing, the dean would principally worry about maintaining quality, and the administrative assistant would principally worry about taking care of faculty and participants.
G. Staffing Suggestions

Because the success of a short-course program hinges on the abilities of the administrator, we devoted substantial time to searching for promising candidates. We uncovered five prospects who seem particularly excellent:

-- Joseph Bredie, 39; B.S. in Mechanical Engineering, Ph. D. in Educational Technology; currently a private consultant on education programs in Washington, D.C.; citizen of the Netherlands.

-- William Ellis, 56; B.S. in Chemical Engineering; currently head of University Associates, which offers short courses in engineering, science, statistics, and management; U.S. citizen.

-- Leslie Garner, 32; Ph. D. being completed in Public Policy Analysis; currently director of the Government Executives Institute at the University of North Carolina, which offers short courses; U.S. citizen.

-- Jacques Horovitz, 35; Ph. D. in Business Administration; currently associate professor and director of an executive short-course program at IMEDE, the International Management Development Institute, Lausanne, Switzerland; French citizen.

-- Risto Volanen, 38; Ph.D. in Administrative Decision Theory; currently research director of the Finnish "Civil Service College" and General Secretary for the 1984 European Conference on the training of senior civil servants; Finnish citizen.

Resumés of these candidates are attached at the end of this report (Appendix 4). We have arranged for each of them to visit IIASA during the first week in February.

If the administrator of the education program is from Western Europe or the United States, it would be desirable to select a dean from Eastern Europe or the Soviet Union. If the administrator is new to IIASA (and only Leslie Garner of the five candidates has previous IIASA experience), it would be desirable to select a dean who has worked at IIASA. We believe that a superb candidate for dean would be Isak Assa, currently associated with SDS, citizen of Bulgaria, with
degrees from both the Soviet Union and the United Kingdom, and with experience (at the Academy of Social Sciences and Management in Bulgaria) in running short-courses.

The administrative assistant should be a well-organized, conscientious manager who is outgoing, sympathetic, and loves to look after people. Fluency in several languages, an understanding of what to do and how to get things done in Austria, and previous experience at IIASA would be desirable. An excellent candidate might be Olivia Carydias, if she is interested.

H. Start-Up Budget

The salaries and overhead for an administrator, administrative assistant, secretary, and half-time dean would amount to roughly 2 million schillings per year. In addition, money will have to be allocated for extensive travel expenses, other marketing expenses, expenses associated with preparing short courses, fees to be paid to lecturers, and so on. If the short-courses attract outside support or enough paying participants, these expenses will be covered—but often six months to a year after the required outlays. Furthermore, the early short-courses may not attract sufficient funding to cover expenses.

To help the program get started, IIASA may want to provide some "seed money" of perhaps 1 or 2 million schillings in 1983, 4 or 5 million schillings in 1984, and 1 or 2 million schillings in 1985—in addition to covering the basic salaries and overhead of 2 million schillings per year. Alternatively, the first priority of the administrator might be to raise sufficient seed money from outside sources.

I. Payment of Faculty

Many of the faculty of a short-course program will be recruited from outside of IIASA (although, in many cases, such faculty will be IIASA alumni). Outside faculty will have to be reimbursed, as necessary, for their services.

Some of the faculty, especially for the training workshops in adaptive environmental management and negotiation
and for occasional courses arising from IIASA research projects, will be on IIASA's staff. Should such faculty be reimbursed? If so, how? The procedure used in a number of North American and European institutions is to reimburse the research project or department with which the staff member is associated. Then to the extent staff members contribute to the education program, their research project will have additional resources to hire new staff members, buy a micro computer, bring in more visitors, or whatever else seems most useful in enhancing research productivity. This kind of reimbursement scheme would help insure that research leaders did not resent the education program and that the true costs of the education program were properly accounted for.

J. Relationship of the Short-Course Program to the Young Scientists Summer Program

We were unanimously advised to keep the short-course program administratively separate from the Young Scientists Summer Program (or Junior Fellows Program). While the short-course program clearly fits within the Outreach Division at IIASA, the Young Scientists Summer Program could either fit here or elsewhere. (The summer program participants are essentially scientists visiting projects.) However, if the summer program is placed in Outreach, it and the short-course program should be managed as distinct activities within that division. In particular, the entrepreneur chosen to launch the short-course program and solicit funds for this program should not be burdened with responsibility for the summer program.

We thus recommend the following administrative structure.

-- Short-Course Program
  - Administrator (full time)
  - Dean (half time)
  - Administrative Assistant (full time)
  - Secretary (full time)
-- Summer Program
  - Dean (quarter to half time)
  - Administrative Assistant (quarter to half time)

Because this structure requires two part-time deans, it might be desirable to appoint one full-time dean. The dean's responsibilities for the short-course program, however, would be fundamentally different from his or her responsibilities for the summer program. Furthermore, since suitable candidates for dean may insist on devoting at least half time to research, it may be necessary to appoint two separate deans.
APPENDIX 1

REPORT ON AND ASSESSMENT OF
THE YOUNG SCIENTISTS SUMMER
PROGRAM 1982

OLIVIA CARYDIAS
DIANNE GOODWIN

Note: Subappendices are not included but are on file.
REPORT ON THE YOUNG SCIENTISTS SUMMER PROGRAM 1982

From about 40 candidates, 22 participants were selected for the Young Scientists Summer Program (YSSP) in 1982. Unfortunately, the Japanese participant was, at the last moment, unable to attend due to illness. Thirteen NMO countries were represented by the participants.

All research leaders, supervisors and YSSP-ers received a specially prepared booklet containing biographical sketches of the participants (Appendix A).

The participants were distributed throughout the research areas (Appendix B).

Although the official starting date of the Program was on Monday 14th June, 1982, the Opening Program was held on Tuesday 15th and Wednesday 16th June, 1982. Unfortunately not all the YSSP-ers had arrived at IIASA.

From June 22nd to July 12 lectures oriented to the YSSP-ers were held by members of IIASA's research staff. The YSSP-ers commented that these lectures were not all well-prepared and that the speakers did not cater to the higher level of experience of this year's participants.

The ages of the YSSP-ers ranged between 22 and 34; the average age was 31. Though most of the YSSP-ers were pre-doctoral students working on their dissertations, some have had their doctoral degrees for some time.

A booklet was prepared for the YSSP-ers containing pertinent information (Opening Program Agenda, Lecture Series, Public Speaking Workshop, addresses, affiliations, etc.) (Appendix C).

In the beginning of August 1982, Robert Voll held the Public Speaking Workshop. This was so popular that in response to requests, he held a second one. Each workshop lasted two days and involved 8 participants. All the attendees were unanimous in their expressions of gratitude for "this unique opportunity to be evaluated - not for the scientific content of their presentation, but for their manner of deliverance and method of
presentation". Workshop Participation Certificates were presented to the attendees upon completion of the workshop.

On August 17th 1982, a mid-term meeting was held to assess the Program to-date, and YSSP-ers were encouraged to offer comments and suggestions. This was followed by an evening at a Heuriger, which they attended as IIASA's guests. This proved to be a great 'ice-breaker' and relations between the YSSP-ers improved greatly thereafter (point 5, Appendix D).

As a result of the Public Speaking Workshop, many of the YSSP-ers initiated YSSP seminars to gain exposure to the various research interests of their Group (point 4, Appendix D).

During the final weeks of the Program, 4 YSSP-ers held... Seminars for all scientific staff (Appendix E).

The last official day of the Program was Friday 19 September 1982. However, in order to include as many YSSP-ers as possible (some had to leave before the 19th), a Farewell Meeting was held on September 9th at which time the YSSP Program Certificates of Attendance were distributed. This was followed by a Farewell Luncheon attended by some of the Research Leaders.

A Program Assessment questionnaire was circulated to all of the YSSP-ers and this was completed and returned by most of them. The data obtained will be analyzed to obtain a final set of comments by the YSSP-ers.

Olivia Carydias
YSSP Coordinator 1982
7 October, 1982

P.S. For your information, I also attach a copy of the hand-out I prepared for the YSSP-ers called "By the way..." (Appendix F).
Jim Vaupel and Dianne Goodwin are conducting a Feasibility Study to assess the need for and appropriate design of an IIASA Education Program. One option under consideration is to incorporate IIASA's existing Young Scientists Summer Program. As part of an overall survey of this option, Olivia Carydias and Dianne Goodwin conducted an assessment of the 1982 YSSP to see if there are any ways it might be improved. This involved: discussing the Program with the Young Summer Scientists (YSSPers), participating in the 1982 YSSP Assessment Meeting and collecting assessment data from the 1982 YSSPers.

For the data collection we designed a standard form entitled "Assessment of the Young Scientists Summer Program". (The questions were based on YSSPers assessment letters from previous years). Of the twenty-one 1982 Program participants, eighteen completed the assessment forms. Fifty-five questions were posed in the form of statements, with five possible levels of response: "agree strongly", "agree", "so-so", "disagree", "disagree strongly". To display the skew in results, we highlighted the response levels selected > \( \bar{x} \) number of times (Appendix I).

Out of a total of sixty-three statements, the following four had "disagree" or "disagree strongly" selected > \( \bar{x} \) number of times.

1. (Statement 1). The YSSPers are given sufficient notification time (verifying their acceptance into the YSSP).
2. (Statement 3). The YSSPers have sufficient advance (pre-arrival) collaboration with their IIASA supervisors.
3. (Statement 4). The YSSPers have sufficient advance (pre-arrival) opportunity to develop their IIASA research plans.
4. (Statement 2/e). The timing of the YSSP Assessment Meeting was appropriate (early enough).
The main criticisms of the Program which were voiced in the YSSP Assessment Meeting (Appendix II) and in conversations with the YSSPers were as follows:

1. The notification time for acceptance into the YSSP is insufficient.
2. There is insufficient prearrival contact with the research area to outline research to be done at IIASA.
3. Integration into their own and other IIASA research areas is poor.
4. The activities which bring the YSSPers into closer contact with each other should begin earlier (i.e. Public Speaking Workshops, Heuriger).
5. The intellectual level of the lectures could have been higher and the lectures more "concrete".
6. The computer facilities (terminals) were in short supply.
7. The YSSPers felt they were often treated more like junior students than visiting scientists (25% of the YSSPers had their PhDs and a number of years of working experience).
8. The YSSPers would have appreciated living closer together.

Many of the criticisms of the 1982 YSSP are the inevitable result of a research program going through a transition period. However, we consider that there are two general areas for potential improvement in the Program. These could broadly be classed as improvements in timing and integration, which are inevitably related.

Insufficient notification time has been a criticism of the Program for a number of years. We suggest that the prearrival timing of the YSSP be advanced (Appendices III and IV), beginning, in 1983 with the deadline for applications (and in future years with the time the request for candidates is sent to the NMOs). We also recommend that this date be fixed (on the advice of a number of YSSPers).

It would also be helpful if the majority of the Program's scheduled activities could be concentrated at the beginning of the Program (Appendix IV): the lectures, so that as early as possible the
YSSPers will be familiar with IIASA's research; the Public Speaking Workshop and Heuriger as they have proven to be excellent "opening up" devices for the YSSPers.

The second area of concern was what could be termed an insufficient degree of YSSP integration into the IIASA research areas. This seems to begin with the prearrival planning and collaboration with the research areas on the research the YSSPers will do while they are at IIASA. Integration would undoubtedly be improved by an increase in the acceptance notification time. However, following on this, there needs to be a good deal of exchange regarding the specific research that will be done at IIASA once the YSSPers arrive.

Some of the YSSPers have suggested that it may be productive to draft (in cooperation with their 'supervisors') a proposal for their IIASA research. Others have suggested that a number of YSSPers work on a project under one supervisor who is looking for some assistance, while those who wish to "do their own thing" be left to do so. It seems that more effort on prearrival research planning would be advantageous to both the IIASA research areas and the YSSPers. If IIASA research plans were well laid out, perhaps this would also solve the problem of the YSSPers' feeling of "separateness".

The purpose of this assessment was to determine ways to improve the YSSP; hence, it has focused on the few problem areas in the program. However, it should be noted that the YSSPers considered their IIASA experience a very rewarding one in which the IIASA staff in general and the YSSP staff in particular scored very high as being helpful and friendly. Particularly high regard was expressed for IIASA's Library facilities and Robert Voll's Public Speaking Workshops.

Input from IIASA scientists in general and YSSP supervisors in particular is currently being gathered and will be incorporated into the final Education Program report.
APPENDIX 2

REPORT TO THE DIRECTOR ON THE
1979 IIASA EDUCATIONAL ACTIVITIES

ARNOLD LIEBERMAN
REPORT TO THE DIRECTOR
ON THE 1979 IIASA
EDUCATIONAL ACTIVITIES*

*This report focuses only on the formal IIASA activities. Additionally in 1979, two IIASA scientists have been awarded doctoral degrees for work done at IIASA under the supervision of another IIASA scientist who is also Adjunct Professor.

A.J. Lieberman

October 1979
SUMMARY

Three Different Activities in 1979
- 3rd Summer Program for Junior Scientists (JSSP)
- 1st Short Course on Migration and Settlements (M & S)
- 1st Short Course on Management of Energy/Environment Systems (ME/ES)

Participants in 1979 (excluding IIASA staff)
- 23 participants in JSSP
- 28 participants in M & S
- 23 participants in ME/ES
- 74 participants total (listing of participants presented in appendix)

Countries of Participants in 1979
- 11 countries represented in JSSP
- 14 countries represented in M & S
- 16 countries represented in ME/ES
- 23 countries represented overall
  (matrix of participating countries presented in appendix)

Participant Organizations in 1979
- 31 participants from university departments and institutes
- 27 participants from government research organizations
- 5 participants from non-government research organizations
- 11 participants from government operating units
- 74 total participants
- 66 separate organizations
  (matrix of organizational affiliations in greater detail presented in appendix, plus listing of organizations by type)

Participant Reactions Submitted 1979
- 14 of the 23 JSSP participants submitted reactions
- 21 of the 23 M & S participants submitted reactions
15 of the 27 ME/ES participants submitted reactions. 50 comments were received altogether.

Overall Participant Reactions

- 48 of the 50 comments expressed favorable impressions
- 31 of the 50 expressed critical comments
- 48 of the 50 included specific suggestions for improvements

Examples of Critical Comments

- Too much stress on theory, modeling, formulae manipulation
- Not enough time to reflect on seminars, prepare one's own presentation, assimilate information
- Poor advance information, involvement of Area/Program staff, Kaisergang facility
- Too much variety in participants, poor balance among participants

Examples of Strong Points Mentioned

- Good opportunity for professional contacts, for exposure to research of scientists from throughout the world, for informal discussion, for learning about IIASA work
- Well-organized, useful, presentations well done, quality of papers high
- Computer exercises informative
- Size of group optimal, informal format very good

Examples of Suggestions Made by Participants

- IIASA should send advance information and materials
- Working groups should be organized for discussion of seminars
- Assignments of tasks for deeper involvement
- Assignments of tasks are not necessary
- Involvement of IIASA staff should be increased
- Structure should be more like a course, less like a conference
- Greater emphasis on methods, mathematical tools, techniques
- More attention to developing nations
Current Plans for Future Educational Activities

- M & S short course in Mexico City, 1980
- Energy short course on use of ENP models, 1980
- Water Management short course, 1981

Problems for Future Educational Activities

- Funding: Both 1979 short courses were funded by the Ford Foundation New Venture Funds (about AS 150,000 - 200,000 per course). For future courses, tuition may have to be charged beyond participant travel and housing if IIASA continues to bring outsiders to IIASA as course leaders and speakers, or if IIASA staff travel outside IIASA to present these courses. Would NMOs be able to absorb these tuition changes? What problems would arise?

- Administration: IIASA may need a substantive dean for the JSSP and other educational activities if these efforts are to continue or increase. However, the main responsibility for content, participant selection, course leadership and scientific support must remain decentralized. How can these educational activities remain Area- and Program- controlled yet still be coordinated and supported centrally?

- Participant Selection: More attention to recruitment and selection procedures may be needed to attain the proper degree of variety and balance among participant backgrounds. How can this be achieved? What additional information is needed by the NMOs?

LISTING OF APPENDICES

1. 1979 Participating Countries
2. 1979 Participant Organizations
3. Listing of 1979 Participants
4. Listing of 1979 Participant Organizations
APPENDIX 1

1979 PARTICIPATING COUNTRIES

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Participant Totals 23 28 23 74
Country Totals 11 14 16 23

JSSP = Junior Scientists Summer Program
M & S = Migration & Settlement Short Course (HSS)
ME/ES = Management of Energy/Environment Systems Short Course (REN)
University Departments/Institutes

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**JPPS** = Junior Scientist Summer Program  
**M & S** = Migration & Settlement Short Course (HSS)  
**ME/ES** = Management of Energy/Environment Systems Short Course (REN)
JSSP
AUSUBEL, Jesse (REN)
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BIRGE, John (SDS)
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ZERMENO, Ricardo (MMT)
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Technology Policy Unit
Birmingham, UK
APPENDIX 3 (cont'd.)

M & S

ANAS, Alex
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Northwestern University
USA

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FRG

DE FEIJTER, Hendrik
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Netherlands

EICHPERGER, Charles L.
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Netherlands

FERLIGOJ, A.
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Yugoslavia

FREY, William H.
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GATEVA-DUNEVA, N.K.
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GORDIJN, Hugo
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Planologisch Studiecentrum

JARVIE, Wendy
School of Social Sciences
Flinders University of South Australia
Australia

KUO, Chun Yan
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Government of Canada
Canada

LEITNER, Helga
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University of Vienna, Austria

LOBDELL, Richard
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Canada

LONG, John F.
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Population Division
USA

MCCALDEN, Gerald
Geelong Regional Commission
Australia

MILLS, Philip
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University of Toronto
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OEBERG, Nils Sture
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Sweden

POLYZOGIOTIS, H.
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Belgium

RENNER, Bo
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Sweden

RIZAYEV, Nikolai
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National Academy of Sciences
USSR

RYKIEL, Zbigniew
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Academy of Sciences
Poland

SCHEURWATER, Jan
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Rijksuniversiteit
Netherlands

SEIFELNASR, Ahmed
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John Hopkins University
USA

TERVAMAeki, Erkki
Department of Geography
University of Helsinki
Finland

Tsay, Ching-Lung
Population Studies & Training Center
Brown University
USA
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<td><strong>SAMSON, Jules</strong></td>
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<td><strong>SANDOR, Derrick</strong></td>
<td>Ottawa, Ontario, Canada</td>
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<tr>
<td><strong>SCHUETT, Torgny</strong></td>
<td>Energy Research &amp; Devel. Commission, Swedish Committee for Systems Analysis, Sweden</td>
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<tr>
<td><strong>SMART, Walter</strong></td>
<td>Rhine-Schelde-Verolme, Engineers and Shipbuilders, Netherlands</td>
</tr>
<tr>
<td><strong>TAJTHY, Tihamer</strong></td>
<td>Institute for Electrical Power Research, Budapest, Hungary</td>
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<tr>
<td><strong>TAMMINEN, Eero</strong></td>
<td>Electrical Engineering Laboratory, Technical Research Ctr. of Finland, Finland</td>
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</table>
APPENDIX 3 (cont'd.)

WE/ES (cont'd).

VERNON, K.
Department of Energy
London, England

WALL, Goran
Institute of Theoretical Physics
Resource Theory
Sweden

JSSP = Junior Scientists Summer Program
M & S = Migration & Settlement Short Course
ME/ES = Management of Energy/Environment Systems Short Course
Universities (31)

Faculty of Engineering
Osaka University, Japan

Turku School of Economics
Finland

Technical University of Istanbul
Turkey

Department of Civil Engineering
Northwestern University, USA

Department of Planning & Demography
University of Amsterdam, Netherlands

Faculty of Sociology
University of Ljubljana, Yugoslavia

Center for Demography & Ecology
University of Wisconsin, USA

School of Social Sciences
Flinders University of S. Australia

Institute of Geography
University of Vienna, Austria

Department of Economics
University of Manitoba, Canada

Department of Urban & Regional Planning
University of Toronto, Canada

Department of Demography
Université Catholique Louvain, Belgium

Institute voor Planologie
Rijksuniversiteit, Netherlands

Department of Population Dynamics
John Hopkins University, USA

Department of Geography
University of Helsinki, Finland

Population Studies and Training Center
Brown University, USA

Economic Geography Institute
Erasmus University, Netherlands

Institute of Geography
University of Vienna, Austria
Appendix 4 (cont'd.)

<table>
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<th>Location, Country</th>
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<td>Department of Economics</td>
<td>Washington University, USA</td>
</tr>
<tr>
<td>University of Agriculture</td>
<td>Vienna, Austria</td>
</tr>
<tr>
<td>Institute of Agricultural Policy &amp; Market Res.</td>
<td>University of Giessen, FRG</td>
</tr>
<tr>
<td>Department of Hydraulic Engineering</td>
<td>Technical University of Budapest, Hungary</td>
</tr>
<tr>
<td>Department of Chemical Engineering</td>
<td>Twente University of Technology, Netherlands</td>
</tr>
<tr>
<td>Institute fuer Wasserbau</td>
<td>University of Karlsruhe, FRG</td>
</tr>
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<td>Washington University, USA</td>
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<tr>
<td>LBJ School of Public Affairs</td>
<td>Texas, USA</td>
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<tr>
<td>Faculty of Electrical Engineering</td>
<td>Czechoslovakian Institute of Technology, CSSR</td>
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<td>Technology Policy Unit</td>
<td>University of Aston, Mexico</td>
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<tr>
<td>Department of Operations Research</td>
<td>Stanford University, USA</td>
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<td>Mathematics Department</td>
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**Government Research Organizations (27)**

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<tr>
<td>Climate Research Board</td>
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<td>All-Union Institute for Systems Studies</td>
<td>USSR JSSP (2)</td>
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Non-Government Research Organizations (5)

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Appendix 4 (cont'd.)

**Government Operating Units (11)**

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<td>Electricité de France</td>
<td>France</td>
<td>ME/ES</td>
</tr>
<tr>
<td>Compania Energetica de Sao Paulo</td>
<td>Brazil</td>
<td>ME/ES</td>
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<tr>
<td>Wiener Stadtwerke</td>
<td>Austria</td>
<td>ME/ES</td>
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<tr>
<td>Department of Regional Economic Expansion</td>
<td>Government of Canada, Canada</td>
<td>ME/ES</td>
</tr>
<tr>
<td>Bureau of the Census</td>
<td>USA</td>
<td>M &amp; S</td>
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<tr>
<td>Geelong Regional Commission</td>
<td>Australia</td>
<td>M &amp; S</td>
</tr>
<tr>
<td>National Central Bureau of Statistics</td>
<td>Sweden</td>
<td>M &amp; S</td>
</tr>
<tr>
<td>National Physical Planning Agency</td>
<td>Netherlands</td>
<td>M &amp; S</td>
</tr>
<tr>
<td>Electrical, Coal, Uranium and Nuclear Energy Branch</td>
<td>Canada</td>
<td>ME/ES</td>
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<td>Department of Energy</td>
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APPENDIX 3

BRIEF DESCRIPTIONS OF 1983 NMO SPONSORED
SHORT COURSES ON MIGRATION AND
SYSTEMS ANALYSIS FOR REGIONAL PLANNERS
A SHORT COURSE ON MULTIREGIONAL/MULTISTATE DEMOGRAPHY
26 September - 1 October 1983
BULGARIA

organized by

The Bulgarian National Committee for Applied
Systems Analysis and Management
The Institute for Social Management
The Institute for Sociology of the Bulgarian
Academy of Sciences
The Institute for Youth Studies

in collaboration with

The International Institute for Applied Systems
Analysis, Laxenburg, Austria

FIRST ANNOUNCEMENT
January 1983
THE COURSE THEME: MULTIREGIONAL/MULTISTATE DEMOGRAPHY

Multiregional mathematical demography is concerned with the mathematical description of the evolution of human populations over time and space. It focuses on (i) the stocks of human population groups at different points in time and locations in space; (ii) the vital events that occur among these populations; and (iii) the flows of members of such populations across the spatial borders that delineate the constituent regions of the multiregional population system.

Recently, increased attention has been accorded to the study of population flows across regions of a nonphysical character; specifically, flows between different states of existence or status. The consequence of this has been that changes of state or status experienced by individuals during their lifetime, such as changes in marital status, employment status, and educational status, and the evolution of the associated status-specific populations, has emerged as a central focus of a growing body of analytical methods referred to as multistate demography. Much of the work currently under way in the Population Project at the International Institute for Applied Systems Analysis (IIASA) is directed towards the integration of macro and micro multistate demographic analysis in a number of areas: marriage and divorce, migration, health and disability, and employment. These topics will form the contextual background of the short course on multiregional/multistate demography.

ABOUT IIASA

IIASA, a nongovernmental, multidisciplinary, international research institute, was founded in October 1972 by academies of science and equivalent scientific organizations drawn from both East and West. The founding institutions set IIASA the task of addressing complex problems facing mankind today in ways that cross traditional disciplinary and national boundaries. Among these are universal issues, such as, population aging and changing lifestyles, which present challenges to all member nations.

IIASA's goals are:

• to bring together scientists from different disciplines, cultures,
and ideologies to work jointly on common problems of concern to mankind;
• to function as a catalyst for the expansion, initiation, critique, and dissemination of methods used in the analysis of complex systems;
• to contribute to better decisionmaking by providing improved analytical instruments for policy evaluation.

One of the research programs in IIASA's current agenda is the Population Project, which is focusing on the role of the human factor in social development. Low fertility levels and the socioeconomic impacts of aging populations, changing patterns of family formation and dissolution, and increasing rates of female labor force participation are the principal topics being studied with the aid of multi-regional/multistate demographic methods developed by the Institute's scholars.

COURSE OBJECTIVES AND ORGANIZATION

The Course is intended to provide a small group of young scientists from the planned economies the opportunity to: (i) become familiar with the latest advances in the field of demographic analysis by attending a series of lectures delivered by senior IIASA staff and associated research scholars, (ii) participate in an international exchange of ideas and experiences in the development and application of demographic analysis and related fields of knowledge through informal seminars, and (iii) present the results of their research activities with the aid of computer demonstrations.

TENTATIVE AGENDA

Monday

• Morning — Introduction to the Course, Introduction to Multi-regional and Multistate Demography
• Afternoon — Seminar: Applications
Tuesday

- Morning — Data Problems, Estimating Demographic Measures from Incomplete Data
- Afternoon — Seminar: Applications

Wednesday

- Morning — Life Tables
- Afternoon — Seminar: Computer Demonstrations

Thursday

- Morning — Population Projections
- Afternoon — Seminar: Reports by Course Participants

Friday

- Morning — Demoeconomics
- Afternoon — Panel: Concluding Discussions and Closing Remarks

TENTATIVE FACULTY

Andrei Roges (USA), former Chairman of the Human Settlements and Services Area at IIASA, is currently leader of its new Population Project. He came to IIASA from Northwestern University, Illinois, USA in 1975. His current research focuses on migration patterns, the evolution of human settlement systems in both developed and developing countries, and population aging.

Peer Just (FRG) has been at IIASA since January 1979. He received his Ph.D. from the University of Vienna, Austria after having completed his dissertation on theoretical extensions of multistate demography and its possible applications. His current research focuses on urban-rural population projections and multistate demography.
Piotr Korcelli (Poland), currently at the Institute of Geography and Spatial Organization of the Polish Academy of Sciences, was a Research Scholar at IIASA between June 1979 and December 1982. For several years he was the Deputy Chairman of the Human Settlements and Services Area and leader of its Urban Change Task. He received his training from the University of Warsaw and the University of Maryland. His primary field of interest is urban change and settlement dynamics.

Jacques Ledent (Canada), a professor at the Institut National de la Recherche Scientifique - Urbanisation, Montreal, Canada, studied engineering at the Ecole Nationale des Ponts et Chaussées, Paris, France, and at Northwestern University, Illinois, USA. In recent years he has worked extensively on problems of multiregional demography, concentrating in particular on the construction of multi-state life tables.

Dimitar Philipov (Bulgaria) studied mathematics, mathematical statistics, and probability theory at the University of Sofia and was a research scholar in the Demographic Section of the Scientific Institute of Statistics before coming to IIASA in 1977 where he remained until September 1982. His scientific interests center on the mathematics of population growth and on demoeconomics.

Sergei Scherbov (USSR) received his certificate in applied mathematics from the Moscow Aviation Institute in 1975. Since 1976, he has been a researcher at the All-Union Research Institute for Systems Studies. His present interests include the modeling of population growth, numerical methods for parameter estimation, and interactive man-machine systems.

Svetlana Soboleva (USSR) is at the Institute of Economics and Industrial Engineering, Siberian Branch of the USSR Academy of Sciences, Novosibirsk. Her scientific interests include the study of demographic processes such as migration, the influence of socioeconomic factors on demographic processes, and methodological problems of modeling.
Hartmut Usbeck (GDR) studied population and settlement geography at the Ernst-Moritz-Arndt University in Greifswald. He is now leader of a research group at the Institute of Geography and Geocology, Academy of Sciences of the German Democratic Republic in Leipzig. He spent the summer of 1982 at IIASA applying the multiregional model to examine urbanization patterns in the GDR.

Frans Willekens (Netherlands) is the Deputy Director of the Netherlands Interuniversity Demographic Institute (NIDI), Voorburg, the Netherlands. He received a doctorate in Urban Systems Engineering at Northwestern University, Illinois, USA, after completing his undergraduate work in agricultural engineering, economics, and sociology at the University of Leuven, Belgium. He has worked extensively in the field of multiregional and multistate demography.

LANGUAGES

English and Russian. Simultaneous translation will be provided.

COMPUTER FACILITIES

APPLE II personal computers will be available for demonstration purposes.

WHO SHOULD ATTEND?

The Course is aimed at young scientists (age up to 35 years) of various disciplines (demographers, geographers, sociologists, economists, etc.) who are active in computer-based, policy-oriented research.

SELECTION CRITERIA

Applications will be considered on the basis of the following criteria:

- the candidate's research interests;
- academic background and qualifications;
- prior publications.
LOCATION

The Course will take place at the International Youth Center "G. Dimitrov", Primorsko — a seaside resort near Bourgas.

EXPENSES

A Course Fee of 40 roubles will be charged to each participant. Participants are expected to cover their own expenses for travel, accommodation, and meals.

ACCOMMODATION

Participants will be lodged in the hotels of the International Youth Center. Further information about accommodation and reservation forms will be included in the Second Course Announcement.

COURSE ORGANIZATION

Organizing Committee —

Chairman: Dr. O. Panov
Joint Directors: Prof. M. Minkov, Dr. G. Kalushev, P. Balkanski
Scientific Advisor: Prof. A. Rogers (IIASA)
Secretary: N. Gateva

The attached Application Forms must be received by the Organizing Committee not later than 28 February 1983. Send to:

N. Gateva
Secretary of the Organizing Committee
Short Course on Multiregional/
Multistate Demography
Pionerski pat 21,
ISU, Sofia, 1635,
BULGARIA

Further information about the Course Program, Accommodation, and related matters will follow in the Second Course Announcement.
Dear Dr. Goodwin,

I am writing to inform you about the progress made concerning a course in systems analysis for regional planners to be held in Sundsvall, Sweden, February 22-24, 1983. As you may recall we discussed that course in July of last year at IIASA (together with James Vaupel and Ingolf Ståhl). During the autumn the project has materialized into a three-day course sponsored by the Swedish Committee for Systems Analysis in collaboration with the Expert Group for Research on Regional Development, a government body for coordination of Swedish regional research.

The course will contain cases of theory and practice of systems analysis, especially as concerns its application to problems of interaction between local authorities in public planning. Professor Anders Karlqvist will lecture on the tool-kit for systems analysis, Dr. Ingolf Ståhl (Stockholm School of Economics) will lead gaming sessions with water resource planning backgrounds, Giorgio Leonardi (IIASA) will lecture and lead experimental work on public facility location, and finally I will lecture on and run interactive computer models for land-use planning.

The course has gathered a group of some fifteen knowledgeable Swedish regional planners so far. We have set a limit at twenty, but are quite happy to leave it at the current level. The idea is to provide a problem driven discussion of the use of systems analysis in the regional planning of the 1980s and not to lecture on methods in abstraction. The intellectual stimulation during the course is more important than bringing home extensive documentation.

Most of the course will be held in Swedish. However, the IIASA guest researcher, Giorgio Leonardi, will of course speak English. You, or some of your collaborators, are of course welcome to participate as observers if you would like to use the course as a test for your IIASA training program. Should you wish to collaborate more formally, a funding by IIASA of Giorgio Leonardi's trip Stockholm-Vienna (APEX) would be the appropriate official token. I will cover his Swedish travel.

.../2
I look forward to your comments by these considerations and, possibly to seeing some of you in Sweden. I will be at IIASA during the week February 14-18, 1983.

Yours sincerely,

Folke Snickars

cc Anders Karlqvist
Giorgio Leonardi
Börje Johansson
APPENDIX 4

RESUMÉS OF CANDIDATES FOR THE POSITION OF ADMINISTRATOR OF THE SHORT-COURSE PROGRAM

Note: Additional material will be provided before the interviews.
education

Ph.D. The Catholic University of America, Washington, D.C.

M.A. The Catholic University of America, Washington, D.C.

B.Sc. The Technical Teacher Training College, Rotterdam.

Administration, Diploma in business administration.
Economics. Macro, micro and development.
Management. Organizational behavior, project management.

experience

CONSULTING PRACTICE
WASHINGTON, D.C.

Agency for International Development, USAID. Organized a national conference on water supply and sanitation for program directors of private voluntary organizations.

C & P Telephone, system performance managers. Contracted to design and write a set of case studies as paradigms for the process of developing training for computerized functions.


MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MA.


Visiting scholar, Center for Policy Alternatives. Senior investigator and contributing author to a World Bank financed industrial policy study for Portugal. Conducted a systematic evaluation of the contribution to economic development of research and development programs in the public sector.

Lectured in a policy programming workshop for Portuguese government officials and scientists designed to set priorities allocate resources and improve cooperation between agencies responsible for technological development.

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION
PARIS

1975–1980

Assisted member states in the interpretation and use of UNESCO regular and special program activities. Visited Portugal, Tunisia, Kenya, Cyprus and Pakistan to explain and seek cooperation for activities in learning material production and facility planning. Surveyed the educational system of Lebanon, Pakistan, Turkey and Indonesia to determine technical assistance needs for secondary and tertiary level schools and defined new programs in science and technology. Conducted workshops in educational program design methodology for the Ministry of Education in Turkey.
Education consultant. Member of a team assigned to evaluate ten years of financial and technical assistance to the first education project in Pakistan. Prepared chapters of the project completion report on the planning, administration and management of the project.

THE XEROX CORPORATION

Leesburg, V.A.

1974-1976

Executed training need analysis. Designed, wrote and assessed multi-media competency-based training programs for use in corporate headquarters and branch offices. Developed systems for planned and random performance testing and evaluation as part of a model to effectively meet company personnel requirements.

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION / INTERNATIONAL LABOR ORGANIZATION

Singapore

1970-1973

Member of a technical assistance team assigned to plan, organize and assist in the upgrading of technical education in Singapore. Determined together with government, industry and union representatives the content and scope of education and training programs. Wrote new curricula for teacher education based on earlier developed inventories of measurable competencies. Organized and managed the learning material production center at the Teacher Training College.

DUTCH BILATERAL AID ORGANIZATION

Philippines

1968-1970

Education officer. Designed the curriculum for the engineering department of the Don Bosco Institute in Makati. Organized and managed the department including the teaching of engineering courses and the training of counterparts.

Background

Born in 1943 in Gouda, the Netherlands. Speak fluent Dutch, French, German and English. Married.

Selected Publications


Graphic Communication, a proposed technical drawing course for general education. UNESCO. Paris 1970. Also available in French, Spanish, Greek and Chinese.


Personal references available on request.
PROFESSIONAL VITA

WILLIAM WOODRUM ELLIS

Business Address: University Associates
P.O. Box 541
Princeton, NJ 08540
(609) 924-5656

Home Address: The Great Road - RD #5
Princeton, NJ 08540
(609) 924-5624

Professional Employment:

1/78 - Present Executive Director, University Associates
Princeton, New Jersey

8/75 - 8/78 Director, Office of Professional Education,
School of Engineering/Applied Science,
Princeton University, Princeton, New Jersey

3/70 - 7/75 Director of Professional Education Programs
Transportation Research Institute, Carnegie-
Mellon University, Pittsburgh, Pennsylvania

7/64 - 7/75 Director, Office of Post College Professional
Education, Carnegie Institute of Technology,
Carnegie-Mellon University, Pittsburgh, Pa.

9/53 - 6/64 Research Engineer, General Research Department
and Chief Chemical Engineer, Corporate Engi-
neering Department, M & R Dietetic Laboratories
(now Ross Laboratories Division, Abbott Lab-
oratories), Columbus, Ohio

9/49 - 8/53 Project Engineer, Process Engineer, and Product
Engineer, Owens-Illinois (General Research, Kaylo,
and Kimble Divisions): Toledo, Ohio; Berlin, New
Jersey; and Columbus, Ohio

7/48 - 8/49 Plant Assistance Engineer, Grasselli Chemicals
Division, E.I. duPont de Nemours & Company,
East Chicago, Indiana

Professional Experience:

7/64 - Present Responsible for the direction of a center for professional
education in engineering, science, statistics, and manage-
ment. Accountable for all phases of program administration
including: planning, organizing, marketing, executing, and
evaluating a wide spectrum of technical and managerial pro-
grams, ranging from three days to six weeks in length, de-
signed to meet the specific needs of professionals in commerce,industry, and government.
Reported to Engineering Vice President with responsibility for major chemical engineering projects including the design and planning for two spray drying units; one in Holland, and the other in the United States. Coordinated planning of a new pilot plant facility as a part of the corporation's overall technical center development.

Directed spray dryer and other food processing research and development activities.

Carried out assignments in project, process, and product engineering in heavy chemicals, insecticides, insulating materials, and glass in research laboratories, pilot plants, and production plants.

Education:

University of Missouri
Columbia, Missouri
1946-48
B.S. in Chemical Engineering

University of Notre Dame
1945
Certificate of Completion

Naval Reserve Midshipmen's School
Notre Dame, Indiana

Westminster College
1944
Navy College Program
Fulton, Missouri

Iowa State College
1943-44
Navy College Program
Ames, Iowa

University of Missouri
1943
College of Engineering
Columbia, Missouri

Jefferson City High School
1939-43
Jefferson City, Missouri

Military Experience:

7/65 - Present
Lieutenant, U.S. Naval Reserve, Retired.

8/46 - 6/65
Inactive Duty, Lieutenant (junior Grade) and Lieutenant.

7/43 - 7/46
Active Duty, U.S. Naval Reserve, College Training Program, Midshipmen's School, Commissioned as Ensign in March of 1945. Served aboard USS PCS 1459 in Aleutian Islands as Communications Officer and Executive Officer.

Organizations:

American Institute of Chemical Engineers (Assoc Member, 1954; Member, 1957)
Director and Member of Council (1966-68)
Chairman of Continuing Education Committee (1971-72)
Institute Representative, ECPD Committee on Student Development (1965-68)
Vice Chairman of Membership Committee (1964-68)
American Institute of Chemical Engineers (Continued)
Chairman of Public Relations for International Relations Committee (1964-65)
Chairman of Pittsburgh Professional Development Committee (1964-72)
Chairman of National Public Relations Committee (1962-63)
Chairman of Central Ohio Section, Columbus (1961)
Member of National Nominating Committee (1961)
Healy Ad Hoc Committee on Local Sections (1960)
American Society for Engineering Education
American Association for the Advancement of Science
Alpha Chi Sigma (professional chemistry fraternity)
Tau Beta Pi (honorary engineering fraternity)
Delta Tau Delta (social fraternity)
Editorial Advisory Committee, Professional Engineering Career Development Series
Barnes and Noble, Inc. (publishers)
Craig House-Technoma Workshop, Member Board of Directors (1973-75)
Fox Chapel Area School District, Chairman of Task Force for Exceptional
Disciplinary Problems (1974-75)
Pittsburgh Field Club (1973- )
Princeton Club of New York (1977- )
Nassau Club (1978- )

Personal Data:

Birthplace - Jefferson City, Missouri, son of Charles W. and Marjorie W. (Woodrum)
attended public schools in Kansas City and Jefferson City. Age 56. Married Joan
Riopelle of Toledo, Ohio. Children - Jeffery Riopelle, Gregory Charles, and
Maria Joan.
RESUME

LESLEY H. GARNER, JR.

Address:  (Residence)  (Office)

214 Hillsborough Street
Chapel Hill, NC 27514
(919) 929-8918

School of Business Administration
University of North Carolina-
Chapel Hill
Carroll Hall 012A
Chapel Hill, NC 27514
(919) 962-3122

Education:

Ph. D. Candidate at the Kennedy School of Government, Harvard University, Thesis title, "Understanding State Policy Making - The Case of Community Mental Health." Degree expected in winter 1982.

Master's Degree in Public Policy, John F. Kennedy School of Government, Harvard University, June 1974.

A.B. with highest honors in history, University of North Carolina at Chapel Hill, May 1972.

Experience:

Current: Director of the Government Executives Institute and Instructor, School of Business Administration, University of North Carolina at Chapel Hill. My responsibilities include administration, teaching and research, as follows:

Administration: My major responsibility has been the development and administration of the Government Executives Institute, an executive development program for public executives. These duties have included work with faculty and N.C. state government in curriculum development, as well as planning and management of the Institute. GEI is a unique experiment in the nation, a joint venture of state government and the university to provide an intense development experience for the top policy makers. The Institute began in Spring 1978. The ninth session will be in Fall 1982.

I have also developed and directed the first three sessions of Managing the Arts, a management program for arts administrators in the southeast and co-direct the Justice Executive's Program, a joint venture of the UNC Institute of Government, Governor's Crime Commission and Business School. The Justice Program is designed to enhance cooperative planning and problem solving among the component agencies of the criminal justice system in North Carolina.
Teaching: My teaching responsibilities have included development and teaching the following courses at the MBA, undergraduate and executive levels. Business and Society deals with market failure, public regulation, public policy toward business and corporate social responsibility. It is a case oriented course focused on appropriate social policies and strategies for business.

Uses of History for Managers is a course developed and taught jointly by the Business School and department of History at UNC. I represent the Business School in the project and coordinate the course's development. It is designed to help prospective managers explore ways that historical analysis can improve decision making. The course's development is funded by the National Endowment for the Humanities; UNC is one of seven schools to be included in the project.

Workshop in Policy Analysis is a new course for undergraduate business majors and public policy majors. It is a case course focusing on the application of analytic techniques to problems of federal, state and local government. It is intended to enhance students' appreciation of problem solving processes in government and grasp of analytic techniques.

I have also developed and now teach a course on Leadership and Social Change for the North Carolina Fellows Program, a program designed to develop the leadership potential of a select group of undergraduates. It is a case course, focusing on problems of leadership in government, business, health care and education.

At the executive level, I have taught program analysis and planning in the Government Executives Institute and Managing the Arts. I have developed and taught The Budget Game - a simulation of the politics involved in resource allocation in government. I have taught sessions on public policy towards business in the Executive Program and Young Executives Institute.

Research: My major research activity at UNC has been my Ph.D. research. The dissertation describes policy making in mental health in North Carolina. It shows how policy making changes as environmental conditions and program characteristics change, with a special focus on how scarce resource constraints change policy making. I am generally interested in the areas of policy implementation, the use of policy analysis in management decision making in government, and the uses of history in policy analysis.

July, 1974 - February, 1977: Special Assistant to the Director, International Institute for Applied Systems Analysis (IIASA), Schloss Laxenburg, Austria.

My responsibilities included assistance in planning and managing international, interdisciplinary research. It also included oversight of administrative and scientific support services. IIASA was founded in 1972 as the first East-West nongovernmental research institute. Research focuses on issues such as energy, food and agriculture and national issues of concern to many countries such as regional development. Directors of IIASA were Howard Raiffa, 1972-1975 and


My responsibilities included development and teaching of a special undergraduate course on policy analysis and implementation.


Honors: Morehead Scholar, Phi Beta Kappa, North Carolina Fellow, Governor's Award (1981).


"Regulation in the 1980s: How Much Reform?", under review.

"The Arts As a Catalyst in Downtown Revitalization", with Philip Hanes and Susan Hollis, under review.

University and Community Service: Advisory Committee for the Curriculum in Public Policy Analysis and Chair of the Sub-Committee on Core Curriculum; Committee to design a Ph. D. Curriculum in Public Policy; Faculty Advisory Committee for the Duke University, National Governor's Association Center for the Study of the Governorship and State Policy Making; Faculty Advisor, North Carolina Fellows Program; advisory Board, Campus Y; Chairman, Morehead Scholar Selection Committee, N.C. School of Science and Math.

JACQUES HOROVITZ

Business address: IMEDE, P.O. Box 1059, CH-1001 Lausanne, Switzerland
Tel. (021) 26 71 12

Private address: ch. de la Vuachère 25, CH-1012 Lausanne, Switzerland
Tel. (021) 29 66 12

Citizenship: French

Age: 35 years old

EDUCATION


Major: Business Policy and Management
Minor: Finance

Dissertation title: "A Cross National Study of Management Control Practices; France, Great Britain, Germany".

Dissertation was partly financed by a Samuel Bronfman Fellowship and received a Certificate of Distinction for Outstanding Research in the Field of General Management from the Academy of Management in 1978.

WORK EXPERIENCE

1968 Trainee, Singer Company, France

1969 Trainee, European American Banking Corporation, New York, USA

1970-1972 Research Assistant, Graduate School of Business, Columbia University, New York, USA, Management Department

1972-1973 Assistant to the Director, Columbia University Executive Program in Business Administration, Arden House, New York, USA.
Jacques Horovitz

1972-1973
Assistant Professor of Finance, ESCP, France.
Started a new department in Finance (10 new courses).
Taught advanced corporate finance and security analysis.

1973-1974
Assistant Professor of Management, ESCP, France, and ESC, Dijon, France.
Started a Business Policy and Management Department in both schools.
Taught creating new businesses, business policy, basic management, international strategy and structure.

1974-1981
Assistant and Associate Professor of Business Policy and Management, ESSEC, Cergy, France.
Started a new department in Business Policy and Management at master, doctoral and executive levels.
Taught business policy, management design and comparative management at all three levels.

1979-1981
Director and Program Coordinator, The Executive Program for European Managers (a joint senior executive program with Columbia University).

1981-present
Professor of Business Administration (associate level), IMEDE, International Management Development Institute, Lausanne, Switzerland.
Director, the IMEDE Managing Corporate Resources (MCR) Program, a four-week general management program, and the IMEDE/Singapore Institute of Management one-week "The Job of the Chief Executive" Program.

Teaching business and corporate strategy, strategic planning, management design in the Program for Executive Development (PED), Managing Corporate Resources (MCR) Program, Seminar for Senior Executives (SSE), and Strategy Seminars.

PUBLICATIONS AND WRITTEN WORK

Books

- Diriger une Entreprise Moyenne: Les Leçons de l’Expérience, (Managing a Medium Size Business: Lessons from Experience)
  Paris: Editions d’Organisation, 1976 (with Dominique Xardel)


In preparation:

Adaptive Strategic Planning (Prentice-Hall)

Business Policy for the Small and Medium Size Business
Published articles

"La direction par objectifs a-t-elle atteint les siens", (Has Management by Objectives Reached its Objectives), Management France, November/Décembre 1975 (with J.P. Schmitt)


"Management Control in France, Great Britain, Germany", Columbia Journal of World Business, Fall 1978


"Gestion sans Frontières" (Management without Boundaries), interview in Vision, January 1979.


"De la création d'entreprise in vitro à la création in vivo" (Creating a New Business in Vivo and not in Vitro), Enseignement et Gestion, Numéro spécial sur les expériences et innovations pédagogiques, 1979 (with Jean-Pierre Pitot-Belin)
Jacques Horovitz


Unpublished articles


Cases

Author of 20 cases in Business Policy.

TEACHING INTERESTS


RESEARCH INTERESTS

Strategies: models concepts and practices at top corporate levels vs, business levels, Comparative management processes, Small and medium size businesses,
Jacques Horovitz

CONSULTING

Strategy formulation and implementation at top levels. Worked for over twenty companies such as 3M, Johnson, Arthur Andersen, Citroën, Lafarge, Club Méditerranée in the areas of strategic planning, organization structure and recovery plans.

MISCELLANEOUS

Sports: Tennis, ski, windsurfing

Languages: French: fluent
           English: fluent
           German: read and written
           Spanish: read
**CURRICULUM VITAE**

<table>
<thead>
<tr>
<th>Risto Volanen</th>
<th>Doctor of the social sciences, Research director.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Born:</td>
<td>April the 2nd 1944, Jyväskylä Finland.</td>
</tr>
<tr>
<td>Family:</td>
<td>Wife Raili, son Ville (ten years).</td>
</tr>
</tbody>
</table>

**Education**

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>Master of Political Science, University of Helsinki.</td>
</tr>
<tr>
<td>1975</td>
<td>Licentiate of the Social Sciences, University of Jyväskylä.</td>
</tr>
</tbody>
</table>
| 1975-1976  | Fulbright Scholarship:  
- 1975 summer, University of Texas (status: auditor), orientation courses.  
- 1975 fall, Boston University (status: graduate student), courses for the doctoral dissertation in the philosophy of science and moral philosophy.  
- 1976 spring, Harvard University, J.F. Kennedy School of Government (status: auditor) courses for the doctoral dissertation in administrative decision theory. |
| 1977       | Doctor of the Social Sciences, University of Jyväskylä. |
| 1980       | Ecole Nationale d'Administration, Paris (status: "stagiaire étranger"). |

**Career**

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>Project secretary, &quot;Forest Union&quot; Corporation.</td>
</tr>
<tr>
<td>1972-1973</td>
<td>Part time lecturer in the theory of science, University of Jyväskylä.</td>
</tr>
<tr>
<td>1977</td>
<td>Staff secretary of the Minister of Finance.</td>
</tr>
<tr>
<td>1981-</td>
<td>Associate professor, Helsinki School of Economics.</td>
</tr>
<tr>
<td>1982-</td>
<td>Research Director, State Training Centre (the Finnish &quot;Civil Service College&quot;).</td>
</tr>
</tbody>
</table>
Other Activities

1963 - 1964
Military service (lieutenant in the reserves)

1981 -
Member of the board of the Finnish Association for Administrative Studies

1982 -
Member of the editorial board of "Hallinnontutkimus"
(the Administrative Studies Review)

1982 -
General secretary of the 1984 European Conference on the Training of Senior Civil Servants.

Publications

Doctoral Dissertation: On Conditions of Decision Making,
A Study of the Conceptual Foundations of Administration.

Articles on administration, budgeting, and the theory of science.
Le Directeur de l'Ecole Nationale d'Administration

accede que

Monsieur VOLANEN Risto
de nationalité finlandaise
a accompli du 1er Novembre 1979 au 30 Novembre 1980.

le cycle spécial de formation réservé aux stagiaires étrangers de l'Ecole Nationale d'Administration.

Ce cycle comportait :

1°) une période préparatoire de 2 mois, de novembre à fin décembre,

2°) du 1er janvier au 31 juillet, une scolarité intégrée à celle des élèves français à laquelle s'ajoutaient des enseignements propres destinés à compléter la formation des élèves étrangers en matières économiques et en relations internationales.

3°) du 1er septembre au 30 novembre, des stages pratiques dans l'administration locale française (préfecture) et dans les administrations ou organes centraux à Paris.

Au cours des deux premiers mois de scolarité, les élèves étrangers reçoivent des enseignements particuliers qui portent sur les institutions politiques et administratives ainsi que sur les problèmes économiques, sociaux et la politique étrangère de la France et, pour certains, des cours accélérés de langue française.

A partir du mois de janvier, les élèves étrangers rejoignent la promotion des élèves français rentrant de stage pour commencer leur année d'études. Ils reçoivent alors une formation pratique de jeune administrateur, dirigée vers l'application à la réalité des principes, textes et connaissances générales.

Ils pratiquent un travail de groupe en séminaire sur des problèmes réels qui se posent à l'administration. Ils établissent un rapport collectif à ce sujet. Ils s'initient aux techniques modernes de gestion, comptabilité d'entreprise, informatique et éventuellement mathématiques et statistiques. Ils reçoivent enfin un complément de formation en matières économiques ou internationales suivant les besoins.
M. VOLANEN qui avait choisi la voie d'Administration Economique, a suivi le séminaire ayant pour thème : La Stratégie d'Emploi des Grandes Entreprises.

M. VOLANEN a ensuite effectué les stages suivants :
Un stage de deux mois à la Préfecture de Versailles (Yvelines) suivi de contact au Ministère du Budget.

Le cycle de formation a été conclu par un entretien avec un groupe de personnalités françaises.

Au cours de ces diverses activités, le comportement, le travail et la personnalité de M. VOLANEN ont été appréciés ainsi qu'il suit :

**CONNAISSANCE DU FRANCAIS**

Bonnes, malgré quelques difficultés initiales

**AUTRES LANGUES PRATIQUEES**

**ELEMENTS EXTERIEURS**

Très bonne présentation, discret et aimable

**QUALITES DE L'ESPRIT ET DU CARACTERE**

Esprit réfléchi, sûr, cultivé, personnalité affirmée

**CAPACITE ADMINISTRATIVE**

Grande finesse d'analyse, jugement sûr, autorité naturelle. Aptitude à l'intégration dans un groupe.

Sens des contacts humains.
TRAITS DOMINANTS DE LA PERSONNALITÉ ET JUGEMENT SYNTHÉTIQUE

Sérieux, compétent, actif, expérimenté, M. VOLANEN est un fonctionnaire dont les qualités humaines et intellectuelles sont remarquables et en font un élément de très grande valeur qui jouit d'une autorité certaine le rendant apte à exercer les plus hautes fonctions administratives.

CLASSEMENT DE L'ÉLÈVE DANS UNE DES CATÉGORIES SUIVANTES

- Exceptionnel
- Excellent
- Très bon
- Bon
- Satisfaisant
- Moyen
- Faible

Fait à PARIS, le
TRAITS DOMINANTS DE LA PERSONNALITE ET JUGEMENT SYNTHETIQUE

Sérieux, compétent, actif, expérimenté, M. VOLANEN est un fonctionnaire dont les qualités humaines et intellectuelles sont remarquables et en font un élément de très grande valeur qui jouit d'une autorité certaine le rendant apte à exercer les plus hautes fonctions administratives.

CLASSEMENT DE L'ÉLÈVE DANS UNE DES CATEGORIES SUIVANTES

- Exceptionnel
- Excellent
- Très bon
- Bon
- Satisfaisant
- Moyen
- Faible

Fait à PARIS, le