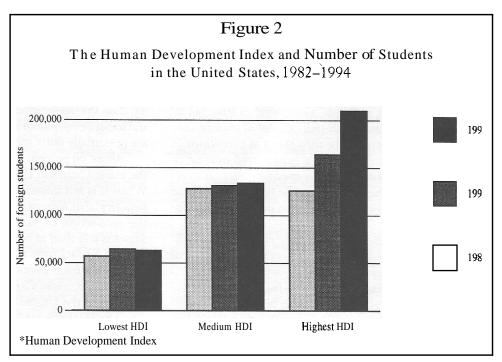
In closing, it is important to remember that student mobility exists within a broader national context. With respect to student mobility and economic development, especially among the poorest nations, we have an obligation to explore the efficacy of student exchange schemes to ensure that these exchanges, which clearly benefit the developed host country, achieve their larger purposes in the poorest of nations. Are nations reintegrating these internationally educated citizens into their economic infrastructure in a meaningful way? Are these internationally educated citizens even returning home to strengthen their place of origin by using what they have eained



for the benefit of their home country? Is the home country's support of education sufficiently broad based to enable large numbers of students at the primary and secondary level to receive a sound education? Answers to these questions could have important implications for economic development and cooperation between the developed and developing nations. Exchange schemes that produce benefits for both developed and developing nations are worthy goals. For it to be an obtainable goal the role of exchange must become understood as one of several policy approaches that can lead to positive social and economic conditions.

Ministeral Reflections

It is rare that scholars are appointed to positions of political power. Recently, two colleagues who are specialists in higher education were appointed to ministerial positions in their countries. Their commenst on their experiences in political office provide a unique perspective on the realities of policy- making, and perhaps on the difficulties of linking research and public policy. Each author is a distinguished educator and researcher. Both were part of the research ream that is responsible for the first international study of the academic profession, the Carnegie Survey of the Academic Profession in 14 Countries. Ernesto Schiefelbein has been a senior educational researcher in Chile fur several decades, and is well known for his writings on Latin American and Chilean education. Sungho Lee, who has held top administrative and teaching posts at Yonsei University in Korea, is one of Korea's most respected higher education researchers.

— Editor

ADVENTURES OF A MINISTER OF EDUCATION: CHILE IN 1994

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In early January 1994—when an official invitation to become the secretary of education in the new government that would take office in mid-March was extended—it was evident that higher education was an area that required priority attention, but nine months later the advances were much more modest than expected. These modest advances can be traced to problems faced by the education sector and the fact that a secretary of education is expected to remain at most one year on average in that job. Having no partisan linkages the appointment was looked upon as an opportunity for designing and implementing long-term policy while coping with immediate problems. There was no attempt to set a short-term policy while coping with day-to-day problems. There was no importance placed on short-term success, but at the same time, it was necessary to plan what could be accomplished in less than one year.

future cabinet after three political figures had declined. Three former secretaries of finance, labor, and housing declined the invitation to work in the Department of Education. The education sector was facing the difficult task of bargaining over higher salaries with the teachers' union, the most powerful union in the country (a well-organized group enrolling 2 percent of the Chilean labor force). There were pressures for improving the "quality" of education

A technical secretary of education was invited to join the

The Appointment of a "Technical" Secretary of Education

tion, the former secretary of education had already obtained an impressive increment of resources for education thanks to the strong political position that accompanied his status as the next candidate for the Chilean presidency. In summary, the decision to invite a specialist in education was not the result of an interest in having a secretary of education with technical expertise, but rather the last resort when

other priorities failed.

(even though the meaning of quality was unclear). In addi-

Even though a work plan was quickly endorsed by the Chilean president-elect, political constraints did not allow the appointment of an undersecretary of education with strong political backing. An excellent education specialist from the main government party was appointed as undersecretary and joined the secretary in on-the-job training during the political and union battles that erupted when the new government took office in mid-March 1994. It became clear to me that there would be no political support for the secretary of education. I would need to obtain support via public opinion and the international community. Thus, arrangements were made for an international interagency mission led by UNESCO to visit Chile in mid-April 1994.

The Initial Situation in Chilean Higher Education

After discussions with all parties concerned, I was convinced that five problems could be selected as the focus for a long-term policy for higher education.

- The country was aware that future social and economic development was related to the ability to use knowledge and to handle technological changes. Therefore, pressures for improving university training were mounting.
- Research showed that 80 percent of the 20,000 university professors had less than a doctoral level of training. Thus, upgrading the faculty became a first priority, given that rote learning prevailed in most programs.
- A problem requiring urgent attention was the difficulty of retaining senior staff (of international caliber), who could work abroad at much higher salaries (at least three times higher). Some 900 professionals in the field were working abroad, while some 2,000 senior staff were working in Chile.
- University presidents were facing serious problems regarding salaries and payment of loans from commer-

- cial hanks. Many of them were going to he defeated in the next elections, unless additional funds to cope with increases in salaries could be obtained (presidents are not appointed by a board, but rather elected by professors and lecturers).
- Two groups were making claims for funds: universities in the metropolitan area and those in the rest of the country. There were excellent rationales for the claims of each group.
- Funding based on payments per undergraduate student negatively affected universities that carried out research and graduate programs. Incentives for expanding graduate programs and research universities did not exist.

There were also some strong aspects of the system. A remarkable one was the ability of the National Research Agency (CONICYT) to allocate in an effective way some U.S.\$25 million per year for research in the FONDECYT projects, plus U.S.\$25 million per year for the FONDEP technology projects. The tradition of modern research strengthened in the 1960s was maintained by a group of 2,000 researchers, and their salaries could be improved in a selective way.

However, there was concern about expansion of the system. Universities were afraid that additional funds granted to projects would give too much freedom to researchers (and might undermine their loyalty to the university). Researchers wanted to be free to present proposals without being constrained to obtain the approval of university officials. These differences were made public by both groups in speeches, interviews, and articles published in the major newspapers.

The National Educational Policy Framework

A careful analysis showed that Chile was supposed to address problems at both extremes of the educational system at the same time: first, to fight against functional illiteracy by improving basic education and, second, to improve the quality of higher education. A solid rationale was presented to all parties concerned, through newspapers, radio, and television. Public opinion rallied to support education reforms. Gradually, the government began to place a higher priority on education. Education was just one of 12 issues included in the campaign platform that won the election of December 1993. The first presidential speech to the Congress in May 1994 presented education as one of the four challenges the country was facing. Finally, in July 1994 the Ministry of Finance declared that education was the main government task and that the government was ready to gradually increase support over the next eight years from 3.3 to 4.8 percent of PIB in public resources, and to increase total resources from 4.9 to 8.0 percent of PIB in that period. He stated, at the same time, that funding would be allocated for carefully evaluated projects.

The total amount of public funding for universities was

some U.S.\$250 million in addition to about U.S.\$50 million in research funds, U.S.\$175 million in fees, and U.S.\$125 million in other income from private sources. Approximately 200,000 students were enrolled in 70 public and private universities. In addition to the university system, technical centers and community colleges enrolled a further 120,000 students.

A key element to he considered was the support the president-elect gave to improving the quality of higher education. At the time of my accepting the position as secretary of education most of the key issues mentioned above were discussed with the president-elect, and a general agreement was reached on the need to improve the training of university professors and to boost the amount and quality of research.

Policy Design

A first draft of the policy design was prepared in early April by a small task force made up of the head of CONICYT, the head of the Higher Education Division, the adviser to the minister, and the minister. Each brought a special expertise to the effort. One was an engineer and had experience in the administration of grants on a competitive basis. The second was a lawyer with political savvy and a good understanding of the administrative workings of the Ministry of Finance The third was a well-known (both nationally and internationally), active research biologist who was then president of the Chilean Academy of Sciences.

The policy design included support for doctoral training: about 300 fellowships per year; larger research grants (U.S.\$150,000 per grant versus the U.S.\$20,000 granted by the FONDECYT projects); and infrastructure grants and funds for attending conferences. The cost of the whole package was an estimated U.S.\$30 million per year (that could be financed by multilateral international banks if necessary) and represented a 60 percent increment with respect to traditional levels.

The proposal was discussed with the hoard of 25 university presidents and with a selected group of researchers. Between April and August a consensus was reached and an advisory hoard within CONICYT was created in order to fine-tune the implementation of the policy design.

Review by an International Interagency Mission

A review by an international interagency mission—UNESCO, U.N. Development Program, U.N. Children's Fund (UNICEF), World Bank, and the Inter-American Development Bank (IDB)—supported the diagnosis and main recommendations described earlier. The section of the report on higher education concludes: "The mission values the diagnostic efforts undertaken, the promotion of a dialogue among all actors directed at defining political orientations, increasing the management efficiency and efficacy of institutions of higher education, actively encouraging interrelation with the productive sector, fostering

institutional differentiation and the access of underprivileged students, to higher education. The mission also agreed on the need to strengthen the country's scientific and technical capacity by expanding academic education at the highest levels. In this regard, it is the mission's recommendation that the government examine its policies as a whole in order to stimulate scientific research and the training of researchers and scientists. This should include reviewing the links betweenuniversities and research institutions and the industry."

Political Feasibility **₫** the Design

The design solved most of the problems identified in the diagnosis, and the consensus of all parties concerned showed its feasibility. Five mechanisms were proposed for solving the problems:

- increase support for the leading research universities by subsidizing the fees for doctoral students, as those universities do most of the research;
- offer fellowships for doctoral training that would help regional universities to upgrade 1,000 university professors per year (of the 16,000 without doctoral training):
- increase and improve research activity by adding resources to he allocated through a competitive selection process and by increasing the overhead paid to universities carrying out research programs;
- allow incremental salary increases for research staff (working in projects receiving grants) that would reduce the risk of migration; and
- increase the quality of university training by upgradingprofessors, who will then be able to keep abreast of their disciplines.

Budget Discussions and Change & Context

The early discussions of the design with the president of Chile and the staff of the secretary of finance helped in the development of programs for improving research and reforming doctoral training. The project took shape in frequent work sessions between the staff of the secretary of finance and the policy design task force. The project would have increased the total budget for higher education and research by about 20 percent for 1994, with the budget for education overall increasing by some 10 percent on average for 1994. However, there would have been almost no increase in payments per undergraduate student, with most of the increment going for research and doctoral programs, as well as a 3 percent increment in subsidies for the best students graduating from high schools in deprived areas (experiments showed that the best students from deprived schools got low scores in entrance examinations, but were able to perform very well during the academic year).

Then, just as the proposal for the project was ready to he sent to the congress, the political context changed. In the wake of a battle with the teachers' union over budget allocations in response to annual enrollment demands, as well as other political pressures, the president was forced to replace the technical secretary of education with a member of the main political party supporting the government. During the week that the project was being prepared to be sent to congress, budget increases for education were reduced from 10 percent to 7 percent. Most of the reductions were in research and doctoral programs. Thus, the policy design remained, but with insufficient funding.

Conclusions

Even though the necessary information and the ability to define long-term educational policy for higher education exists, actual implementation requires additional conditions. There are too many actors playing key roles in the process: ministry officials in education and finance, civil servants, university leaders, scholars, scientists, writers, artists, the mass media, members of congress, political leaders, teachers' union leaders, the private sector, and foreign experts with international banks. But even if a consensus were reached among the many players, additional support would still be needed from overall government policy and the national context. At the same time, even if the policy design is not implemented, just generating the basic information will produce change. Now Chile is well aware of the poor quality of university faculty and the need to increase research. The budget finally approved has the right "headings" even if the money is insufficient to implement the objectives. All in all we are headed in the right direction even though the pace is still slow.

Personal Remarks

The experience in office showed me that a minister has the power to bring people together and to be heard. But at the same time it is important to remember that the audience must be convinced in order to bring about changes and there is no mechanical way to do this. As a policy specialist, I was able to convince people to move the system in the direction agreed upon by the community of policy specialists, in spite of all the constraints and pressures. However, I was not able to persuade teachers' unions to be flexible regarding enrollment demands. More political talent and leverage would have been required to get the enthusiastic support of civil servants, members of congress, and union leaders who have a veto power in shaping educational policies.

Given that the power of a minister resides within an advocacyrole, the job becomes a time-consuming exercise. The minister's schedule must resolve the well-known tactical dilemma of shaping the right policies through small taskforces, on the one hand, and, on the other, building up support for those policies by discussing them with all parties concerned. Fourteen hours of work a day are not enough to do both, especially since solutions for day-to-

day problems always affect many of the parties concerned—such as: appointment of new civil servants; settling strikes; norms and instructions for implementing the budget; investment priorities; the process of approving major procurement bidding; answering questions from the press; attending congressional committees or sessions to explain educational matters; and participating in joint efforts with ministries of health, justice, agriculture or industry. Spending U.S.\$1.5 billion according to complex legal norms is a time-consuming process and each signature carries a **risk** of being charged with wrongdoing. Appointment of lower-level staff is handled by mid-level officials, who are under their own set of pressures. In fact, to step down from the ministry without being accused of wrongdoing is in itself a major accomplishment.

Designing new policies requires the minister's personal involvement and continuous follow-up attention. Top officials have a veto power, are often influenced by their political backing, and cannot he pressed too hard. In a best-case scenario, a minister is like a physician, knowing exactly what ails the patient and what to prescribe, but having to argue with the patient, the relatives, and friends, before the patient agrees to undergo the treatment. In the worst case, a minister is like a physician dealing with an incurable cancer.

In summary, a minister must make a number of decisions that always generate reactions (sometimes from groups trying to use the minister's power to their benefit). Thus, it is one thing to know which social policy decisions should be made in a given political context, and another thing entirely to operate effectively within the political context itself. Furthermore, educational planners know very little about how laws are made, how the press will react to statements or answers to on-the-spot questions, or what the union leaders' expectations are in the bargaining process. It takes some time before you realize the real expectations of each of these actors. And, those expectations must be understood before advocacy and persuasion (or bargaining) can become effective.

NEW PUBLICATION

The Academic Profession: An International Perspective by Ernest L. Boyer, Philip G. Altbach and Mary Jean Whitelaw was published by 1994 by the Carnegie Foundation for the Advancement of Teaching. This pioneering study, the first comparative research on the academic profession ever undertaken internationally, reflects the attitudes of scholars in 14 countries. Professoriate views on such topics as academic freedom, teaching and learning, research and administration of higher education are portrayed in this 106 page essay. 67 tables are included. The book is available from the Carnegie Foundation, 5 Ivy Lane, Princeton, NJ 08540 for U.S.\$15.