

Union, but fails to deal with that sub-set of information that specifically relates to foreign countries. In addition, there is the added research problem which is not in any way associated with the author, but with the accuracy of information concerning foreign nations when viewed through the prism of a Marxist orientation and government control of the media and educational system. The author also notes that many Soviet citizens have a profound distrust of the Western news media and view it either as a crass commercial activity or as some type of propaganda tool working on behalf of the capitalistic system. This media view, of course, further reinforces the state control which is clearly the objective of the Soviet authorities in the first place. The author concludes by pointing to the considerable difficulties that arise when gathering data that pertains to larger international issues within the context of Soviet-controlled countries.

The chapter by Susan Jeffery and E. Nicholas dealing with the British view of the world begins by describing the almost unlimited pluralism of sources within the United Kingdom. The authors point to the paradox that, on the one hand, the U.K. is a leader within the Commonwealth of British nations and very interested in foreign lands, but at the same time, the country has a strain of superiority which views these same distant colonies with some disdain and gives them marginal attention at home. The piece presents a first class analysis of the dominant culture within the U.K. setting, and the extent to which the class structure defines reality both domestically and internationally. This is followed by a brief section dealing with the British perception of the Third World, particularly as provided via the media. An example of the state of the situation is reflected in one of the themes that reflect the misrepresentation provided by the British media of foreign Third World cultures when they state, "women (unless they are heads of state) are invisible, except as starving, desperate mothers." (p. 59) This is a rather unfortunate commentary for a country that boasts such a fine media tradition, e.g., the BBC, *London Times*, and *The Economist*. Yet in terms of contemporary international coverage even these media systems seem to have fallen considerably short of providing an accurate picture of Third World nations.

A substantial flaw in this article is that while it is an historical documentation of how the British come to understand the world, it fails to provide a more contemporary analysis given the considerably reduced role that the U.K. itself plays on the world scene. It also fails to provide an analysis of Britain's multi-racial domestic problems, which are of a cross-cultural nature.

The final chapter by Philip Altbach provides a case study of a Third World nation, India. It begins with a discussion of the vestiges of colonialism and the contemporary difficulties of developing an educational and media system suitable to the national interests of India, rather than serving colonial masters. Only passing reference is made to the enormous film industry in India, the second largest in the world, and no mention is made of the extent to which these films deal with or discuss international issues or places. Perhaps the fault of this chapter is that it deals too extensively with the infrastructures and not enough with the software and content aspects of the materials consumed by India.

In general, the book makes a significant contribution to the field of international education but one would have hoped that there would have been a concluding chapter pointing out where future students of international education should look and important research questions that are still to be answered. But in spite of this drawback, the book does present both a good overview as well as some documented case studies that provide a good basis for moving back the frontiers of ignorance that abound in the cross-cultural educational field.

Thomas L. McPhail
University of Calgary

Zumeta, William, *Extending the Educational Ladder: The Changing Quality and Value of Postdoctoral Study*. Massachusetts: Lexington Books, 1985, 250 pp.

Professor Zumeta's book on postdoctoral education will be of limited interest to individuals in postsecondary education. The topic is such that only a few are likely to read it, namely policy makers and higher level administrators in academia or government. Unfortunately, the group that should read it, graduates contemplating postdoctoral appointments, will probably never read it, as Ph.D.s tend to read material specific to their discipline. Having made such a statement, I will quickly state that the reason is due to the striking outcomes of

the postdoctoral experience, especially the fact that it has not been a sound investment in terms of individual future earnings, and even questionable in cost/benefit terms to science, scholarship and society, A quick overview of the study on which the results are based will substantiate these claims.

Using survey data on more than 8,000 science and engineering Ph.D.s collected by the Higher Education Research Institute (HERI) and surveys of the doctorate labour force made in 1973, 1977, 1979 and 1981 in the United States, Zumeta has conducted a thorough and careful analysis of the postdoctoral experience which includes a focus on ability, gender and minority status. He qualifies the findings where necessary, especially in analyzing the HERI survey that was not a nationally representative sample.

The analysis contributes to our knowledge of why people choose postdoctoral experience; the changes occurring in the distribution of postdoctoral activity; and the character and quality of Ph.D. holders across different groups involved in the experience. He notes that the weakness of the job-market has contributed substantially to the likelihood of individuals opting for a postdoctoral appointment. However, in four field groupings (biomedical sciences, psychology, social sciences, and humanities), the gains in the proportions were from Ph.D.s from lower ranking departments, who chose postdoctoral work to improve their marketability. Individuals from low ranking departments were more likely to undertake postdoctoral work in another speciality. Yet the evidence clearly indicates that in the 1970s, postdoctoral work became a holding pattern for considerable numbers who lacked other employment opportunities. This leaves one with the interesting question, "Was it a good strategy?"

Zumeta answers the question by examining two components: 1) individual returns on the investment, and 2) the increase in productivity of individual scientists. The findings, with the major exceptions in the early (1965-66 and 1971-72) Ph.D. cohorts in physics and in the most recent cohorts (1973-74 and 1975-76) in the basic medical sciences, indicate that the rewards bestowed by the labour market have been surprisingly limited. In many cases the individuals did not surpass the earnings of cohorts who immediately took academic positions at lower quality institutions. However in some fields, such as chemistry, postdoctoral experience is rapidly approaching a prerequisite for obtaining a faculty position, especially at top quality research institutions. Consequently, the question of the returns on investment may be inappropriately applied to this field. If such is the case, then we need to analyze the alternative return on the investment, that is, increased productivity.

While increased lifetime research productivity is negligible in the behavioural and social sciences, postdoctoral training has had a positive impact in the natural sciences. The relationship is stronger and more consistent for natural scientists employed in academe, particularly for the 1970-73 graduates. The increased productivity is estimated to be an additional seven to eighteen articles over a lifetime for this group. But the results have to be weighed against the fact that postdoctoral work is almost a prerequisite for an appointment to a top quality research institution and that there may be natural scientists who opt for positions in industry and government and are not expected to publish. The requirement to publish for tenure and promotion at universities is an alternative that Zumeta does not consider. One also needs to be wary of the numbers game; quantity does not mean quality. In examining the increased productivity, Zumeta cautions against enthusiasm as we still need to come to terms with the apparent anomaly that while productivity is enhanced by postdoctoral work in the natural sciences, earnings are not.

In the end, Zumeta raises some interesting policy questions. He questions the validity of using postdoctoral work as a solution to the alleged problem of the future scarcity of new young faculty. He extends his analysis by linking the results to policy and recommending that policies in post doctoral training take into account field differences and outcomes. He suggests further that financial support be provided to postdoctoral programs that are beneficial. He is to be commended for taking such a strong stance.

Whatever the issue in postdoctoral work, this book is essential reading, especially for those contemplating pursuit of such study.

Alice L. Boberg
University of Calgary