

complex endeavors that “draw on a set of talents that are not abundant within most university administrations” (p. 183). Furthermore, in their zeal to patent and their quest for licensing revenues, universities may be undermining the economic processes these activities are meant to stimulate. The authors are concerned about the broadening of patenting to largely theoretical research results and especially to research tools. Unlike technology, this practice amounts to the privatization of the scientific commons, with consequences that may inhibit scientific communication, diminish potential economic benefits, and ultimately impede research itself.

In part, these problems stem from the strengthening of intellectual property protections since 1980, but the authors also place considerable responsibility on the behavior of universities. They chastise university efforts to maximize licensing revenue and the tendency to apply the distinctive biomedical model to all classes of patents. By neglecting to uphold their public mission, universities may ultimately endanger “their privileged institutional status as entities that deserve extensive public financial support and prestige” (p. 191).

This study deserves a special place among the many recent volumes that condemn the commercialization of academic research. The authors are leading experts on the industrial side of university-industry research relationships, and they have been persuasive champions of the contributions that universities can make to innovation and economic development. Critics of university patenting would be wise to read this nuanced analysis, and supporters would be equally advised to ponder the authors’ misgivings.

Jay W. Rojewski (Ed.). *International Perspectives on Workforce Education and Development: New Views for a New Century*. Greenwich, CT: Information Age Publishing, 2004. 313 pp. Paper: \$34.95. ISBN: 1-593-11 199-1.

REVIEWED BY STEPHEN P. HEYNEMAN, PROFESSOR, INTERNATIONAL EDUCATION POLICY, VANDERBILT UNIVERSITY

Lifelong education is more than a slogan; rather, it is a fact. High geographical mobility, a reduction in barriers to enter long-protected labor markets, choices about when or whether to have children and who will raise them, and longer working lives all put skills and attitudes to use which have been developed long after formal schooling has ended. What then is the future for the development of these “workforce skills”? How are they acquired?

Who (state, firm, or individual) should pay for them? How should they be evaluated as to their economic and social productivity for the individual or the broader community?

This edited volume is an attempt to address some of these issues. It contains two overview articles, first on the role of globalization and second on the conceptual model which guides each following article. Ten articles focus on particular case examples. These include country studies of the Peoples Republic of China, Sudan, Jamaica, Vietnam, the United States, Canada and Germany, England and Finland, and regional articles covering East Asia and the Pacific, and the Middle East and North Africa. While their origins represent many different countries, the authors tend to come from the vocational and technical education profession. They seem more comfortable answering questions of “how” rather than “why and under what circumstances”—hence the essential weakness of this book.

The most interesting article is the one on globalization. It lays out what the authors feel are the inevitable forces for change without judgment. These include new production pressures on manufacturers, the demands from new business markets, new standards of information processing, management, and competition for both profit and nonprofit organizations. It raises the time-honored question about what knowledge is most worth having, whether workforce preparation should be primarily academic in nature, or whether it should provide technical skills. It discusses the issues raised by some who have challenged the economic viability of workforce preparation, and it ends with a series of rather common-sense homilies—that workforce education should focus less on short-term labor market entry skills and more on general knowledge about work adaptation; that in developing countries, skills narrowly focused on short-term labor market entry are most at risk for being economically wasteful; and that skill programs which divide learners into segregated groups are dysfunctional. The authors conclude that how each nation approaches this dilemma is the focus of the rest of the book.

The book could have been improved considerably if the other authors had followed that advice. Instead the articles are based, not on universal theoretical dilemmas, but on a “conceptual framework” from the second article. This framework lays out all conceivable influences on workforce education—government policy, national economic development, social and human capital, geographical location—none of which are particularly informative about how systems actually operate and instead encourage mindless description of the patently obvious. Sometimes case studies even inform the presumably igno-

rant reader of where the country is situated. The article describing the United States, for instance, begins one section by informing the reader that the United States was officially recognized at the Treaty of Paris in 1783.

The best which could be said about this book is that it is uneven. The article on Britain describes skill levels now in force and how they are defined. The article on Finland describes how central funding can be effectively implemented locally. The article on the United States provides three compelling categories of skill-training (education through occupations, education based on career clusters, and education through "tech-prep" for more specialized training). These make sense. The book's drawbacks however fall into two generally categories, problems of commission and those of omission.

With respect to commission: One article holds that skills which leave a country are an economic loss, thus ignoring the economic evidence that a country may benefit by exporting skills. Another article holds that models in "developed" countries do not work in less-developed countries, thus ignoring the evidence (including the evidence in Chapter 1) which suggests that pressures for efficiency and effectiveness are approaching universality.

Virtually all of the articles look to government, national "strategies," and public funding as the answer to the "needs" for workforce training, thus ignoring the most important lesson of the last two decades in this field: that governments and national strategies are a primary source of inefficiency and waste, and that the individual is the primary arbiter of appropriate training and how appropriate training should be delivered. Several articles entreat donor agencies for more projects in spite of the dismal record and unimportance of donor agencies in the adult workforce field.

With respect to omission: The book ignores the one third of the world currently undergoing a transition from a command to a market economy and the massive restructuring of these countries' irrelevant vocational and technical education systems. There no mention of how individuals express preferences when they finance their own training. There is nothing about proprietary schools. There is no mention of the influence of international trade in skills or in skill training, no mention of the World Trade Organization, and no mention of corporate training or the growth in corporate universities, in spite of the fact that it is a multi-billion dollar business. There is no mention of the growth or implications of internet training. The book contains an abundance of vocational and technical education system description, but little on the actual participation of adult training, making one wonder whether the book's title is an accurate description of what it is actually about.

Traditionally there has been a misconnection between those trained and oriented to delivering vocational training and the views of that same training from the field of economics and sociology. This book represents a manifestation of that divide. Had the articles been authored by those who grapple with policy questions of whether and under what conditions it is justified for the public to finance workforce development, the book might have been more relevant to current issues. But instead it was written by those whose main concerns seemed to be why the public should plow more resources into workforce training and how the delivery of workforce training could be improved with new investments, hence relegating the book to issues of the distant past.

W. Norton Grubb and Marvin Lazerson. *The Education Gospel: The Economic Power of Schooling*. Cambridge, MA: Harvard University Press, 2004. 284 pp. Cloth: \$45.00. ISBN: 0-674-01537-1.

REVIEWED BY GEORGE KELLER, EDUCATION CONSULTANT, BALTIMORE MARYLAND.

Every once in a rare while, a book appears that causes us to reassess much of what we believe in. It questions our basic beliefs and suggests that the allegedly wise persons among us may have no undergarments and be blind in one eye. This is such a volume.

The Education Gospel is amiably written and forcefully argued. The authors are both chaired professors, one at Berkeley, the other at the University of Pennsylvania; they are both serious scholars of American schooling. What Grubb and Lazerson have produced collaboratively is a provocative contrarian tract about schools, colleges, job training, and politics.

The book takes aim at three fundamental issues. One is the American faith in schooling. This century-old mantra holds that schools and colleges are essential to voter-driven democracy, to personal growth and affluence, to greater social equality and harmony, and to a well-prepared labor force for the economy. The more schooling the better: free high schools for all, college opportunities for everyone who is able, adult education, job training, workshops and institutes, online courses. Abundant formal education is believed to rescue lost souls, produce more analytical and critical thinkers, help persons get better jobs, and contribute to the nation's health, taste, and cultural appreciation, as Howard Bowen maintained 30 years ago in his famous *Investment in Learning* (a book that is surprisingly absent from this publication's