Book Reviews

State of Small Business and Entrepreneurship in Atlantic Canada: First Annual Report on Small Business, Moncton, New Brunswick, Canada: Atlantic Canada Opportunities Agency [P.O. Box 6051, 644 Main Street, Blue Cross Center, Ground Floor, Moncton, New Brunswick, Canada, E1C 9J8]; 1991; ISBN: N/A.

One sign of the expanding interest in the subject of small business economics is that many national and regional organizations are producing annual documents that reflect the state of small business in their areas. The best known of these is "The State of Small Business: Report to the President," produced by the United States Small Business Administration. This has been imitated by several other countries and regions including Japan, Australia and Holland. It is now intended that the European Commission will produce a similar document covering all twelve Community countries, and this exercise is to be coordinated by EIM (Research Institute for Small and Medium-Sized Business) in Holland, together with its EC partners in the European Small Business Network.

As a partner in the Network it is heartening to see that the Atlantic Canada Opportunities Agency has now produced its first annual report on Small Businesses.

This Agency is to be congratulated for assembling the current document which consists of 150 pages. It has six main chapters. The first covers the background to the Atlantic Canada area, and the second provides a detailed breakdown of the sectoral structure of small firms in that area. The third chapter provides a quantification of small business dynamics, covering births, deaths and survivors. The fourth chapter covers the personal backgrounds, motivations, financing of firms, together with an indication of why they fail. The fifth chapter provides a review of entrepreneurship and education, and the final chapter provides a framework for entrepreneurship.

It can be seen that this is an extremely comprehensive review of the subject area and does represent an improvement over the reports published by the Small Business Administration. In my review of the Small Business Administration document in a recent issue of *Small Business Economics* (Vol. 4, No. 1, 4 March, pp. 82—84), I pointed out that it would be preferable for a wider range of topics to be covered in the report, perhaps reducing the volume of data within the document. It is pleasing to see that the Atlantic Canada review does provide coverage of a wider range of topics than is available for the United States.

This review is unable to provide much detail on the topics covered. Nevertheless the interested reader should be aware that Atlantic Canada covers the provinces of Nova Scotia, Newfoundland and Labrador, New Brunswick and Prince Edward Island. It is an area of above average unemployment (by Canadian standards) and one in which GDP and Employment Growth in the decade 1978—1988 have been disturbingly below that of the Canadian average. The report, however, derives satisfaction by observing the high rate of new firm formation in the Atlantic Canada area and is particularly good in synthesizing several studies which have looked at the characteristics of those individuals who form businesses, factors which influence the competitiveness of businesses and the characteristics of businesses which fail.

Perhaps, not surprisingly, my interest focused upon Chapter 3: "Small Business Economics." Here I felt a degree of familiarity both with the results and with the interpretations. This familiarity, however, made me slightly apprehensive about the policy conclusions which appear to be drawn.

Perhaps this is best illustrated in the discussion of research, 'Survey of Business Terminations' discussed on page 75 of the report. It says, 'The

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high failure rate that accompanies the early existence of the former new ventures is therefore not an unhealthy sign.' It suggested that death of businesses are inevitable, bordering even upon the desirable. I have never been persuaded by this point of view since it is often associated with policies that are intended to maximize the rate of new firm formations. I have not seen evidence that supports this theory. This "gung ho" approach to businesses and policy appears to characterize the discussion of business deaths. An illustration of this is that the report says:

> ... stable businesses are the product of experienced entrepreneurs. Unfortunately most entrepreneurs gain this experience through the school of hard knocks, so many succeed only at their third or fourth attempt. (p. 75)

This has to be contrasted with p. 79 of the document which says that 70 percent of entrepreneurs starting new businesses in Atlantic Canada were doing so for the first time. It also has to be contrasted with p. 117 whereby the survey shows that only one fifth of individuals who went out of business subsequently started another business, and there is no evidence presented that these subsequently become the most successful entrepreneurs.

My contention would be the opposite to that presented in this section of the document. Successful economies are *not* characterized by large numbers of people establishing businesses having only a very short life-span. The success of an enterprise policy *cannot* be gauged by the number of business start-ups. Instead it is the ability to grow businesses which is particularly important. In the context of Atlantic Canada it is observed in the document that the expansion of businesses over a ten-year period contributes significantly fewer jobs than the births of new firms. I would argue that this reflects an unsuccessful, rather than a successful, economy.

My view is that policy makers in this region would, perhaps, be better advised to address the issues discussed in "Small Manufacturing Competitiveness and Performance: An Analysis of Matched Pairs in Nova Scotia and New England," which specifically addresses the competitiveness of firms in these two provinces. It is too easy to simply focus upon the formation of firms, particularly in an area of high unemployment. The much more significant long term challenge to governments is to generate competitiveness and increasing globalization among its small manufacturing enterprises.

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Manuel Trajtenberg, *Economic Analysis of Product Innovation: The Case of CT Scanners*, Cambridge: Harvard University Press, ISBN 067422540-6.

This is an interesting and important book about an arcane subject, product innovation. The case studied by the author, the CT scanner, represents a giant step forward in diagnostic capabilities. As with the fax machine, the CT scanner was not new conceptually, but a technological innovation dependent upon advances in sensing, storing and processing information. The author's central purpose is to measure the increase in net social benefits, resulting from the introduction, rapid adoption and evolution of this totally new product.

The CT scanner is not an improvement on an existing product, the film X-ray machine, but an entirely new product. As such, it is not amenable to the normal analysis of process innovation conducted by economists. Process innovation fits nicely in the models used by economists because it can be represented as a parametric change in a production function, leading to cost reductions, much the same way as factor productivity increases are represented. Product innovation, on the other hand, is not easily modeled because product innovations are in dimensions other than price and quantity. This is similar to the difference between and LP record and a CD disk. Automobiles are an example of improvements embedded in an existing product, more easily analyzed with traditional techniques such as hedonic price indices, where such attributes as fuel efficiency, reliability, comfort, fit and finish, "feel and handling" can be measured.

The challenge is to analyze the social benefits