

Declining Profit — Will It Create a New Profession?

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IT IS time to step back and take a hard look at the economics of surveying and what direction the laws of economics will take us. The laws of economics, like the laws of physics, cannot be circumvented but if we are knowledgeable about them we can have some control over the outcome.

There are at least three major influences on the economics of land surveying (beyond the general economic factors that affect every industry). Not in any particular order, they are: automation, standards and consumerism.

1.

The concept of automation in a service sector industry may be somewhat new but, to illustrate, compare a typical survey office consisting of two Ontario Land Surveyors running three survey crews from the years 1960 and 1980.

1960

- 2 O.L.S.s with grade 13 education
- 2 party chiefs with some highschool and considerable "inhouse" training
- 6 field assistants (3 person crews)
- 1 senior draftsman with some high school and considerable "inhouse" training.
- 2 junior draftspersons
- 1 office secretary
- major equipment consisting of filing cabinets, typewriter, plan storage, one drafting machine, 3 one minute vernier style transits, steel tapes etc., trig function books, mechanical adding machines and a ton of calculation paper.

1980

- 2 O.L.S.s, one of whom may be a Ryerson or Erindale graduate
- 2 party chiefs, one of whom may have college training
- 3 field assistants (2 person crews)
- 2 senior draftspersons, one of whom may have college training
- 1 office secretary
- major equipment consisting of filing cabinets, electronic typewriter, plan storage, two longtrack drafting machines, 3 optical transits - one of which is direct reading to one second, steel tapes, E.D.M. system (perhaps two), one personal computer, several handheld calculators/computers and a ton of ni-cad batteries.

From 1960 to 1980, the typical staff has decreased by approximately 30% and the capital investment (in 1960 dollars) has tripled. Along with the new technology have come new techniques for data collection/handling. Productivity has soared. Calculations can be done in one hour compared with one day. Field time has been halved (taking into account crew size reduction). I believe that the typical office of 1980 can adequately process twice as much survey work as the similar office of 1960.

The end result of this process is one of the unfortunate contradictions of our economic system - declining profit margins. As the entire industry embraces the new technology, the productivity of the industry as a whole increases. Once the initial capital cost is extracted, supply and demand forces the cost of the survey product down. Less labour time goes into the product and it is on the basis of labour that we charge our fees. On the one hand we have increased capital costs and on the other, we have a decrease in the cost of the final product. The result - decreased profit margins.

To maintain actual profit dollars, each business tries to expand its share of the market. As long as demand kept pace with productivity, actual dollar profits were maintained or even improved over old levels. But with the decline of demand for survey work in the late seventies and the recession of the early eighties, our industry has come face to face with the painful reality of declining profits - both margins and actual dollar values, much of which has been the result of the rapid and generalized automation of our industry. What we see now is a struggle to maintain work volumes. For those who cannot, increased productivity over the general level is the only way to maintain profits. This will mean the infusion of yet more technology and so the cycle begins once again.

This very process has been going on in the capitalist economic system for well in excess of 200 years. Statistics are available that show how profit margins (in the general economy) have shrunk from in excess of 20% in late 1800s to below 10% in the post war era. It is partly this process of declining profit margins which leads to concentration of capital and industry monopolies. In our own industry however,

it is a relatively recent post war phenomenon.

Our economic system is somewhat like the proverbial snowball. My concern is that it may reach a size and speed that will bowl us over if we do not act quickly and effectively. I don't suggest we stand in the way of technology. Such an attitude would be regressive at best and at worst suicidal. What is required is understanding the process of automation, so that we can gain by it rather than lose. Perhaps we need to examine the old one plus one and one-half charge out relationship. We need to expand the role of the surveyor into related work areas. We need to more effectively become part of government programs like Polaris. We need to take on new responsibilities and offer new services.

2.

Back in the dark ages (1950s and 60s) some enlightened souls in our Association convinced us that it was time to make a 180 degree turn, stop the erosion in the standard of survey work and in fact improve upon the old. As part of that process, the Erindale, Ryerson and community college programs came into being. Some 20% of our profession now has some post secondary education in surveying. I have no A.C.S.T.T.O. figures, but their percentage may be higher. With the expected approval of the new Surveyor's Act, we will have reached a certain milestone in this process. There is still much to be done but it is also time to take a look at the economic impact of these new standards.

In the long haul, I am convinced that the new standards may be a big part of our economic salvation. We not only benefit the public with a badly needed improved standard of survey but we also increase the amount of work that goes into each survey. However, in the short run, we have put ourselves in a situation where our fee structure does not reflect the new standards. We have voted for the standards with our hands but not with our fees!

A very real danger exists for a surveyor to ignore all or part of the new standards to gain a competitive advantage, particularly in this economic climate and the generalized struggle to maintain survey volumes. If these individuals are allowed to persist, then the market place will quickly decide who will survive. I believe that at least some of the grumbling in the woodwork about excessive or explicit standards and "Big Brother (Sister)" looking over our shoulder is nothing more than a thinly veiled rationale for those who would "use" the standards as a competitive weapon to gain a larger share of the market place. I sincerely hope that

we don't let things slide at this eleventh hour. I believe that we must universally enforce the standards up to and including conducting spot checks throughout the Province. Standards for the Reference Plan were only adopted into general practice because the Ministry of Consumer & Commercial Relations gave us no choice. The Ministry introduced and continues an effective plan checking process. I do not suggest anything as elaborate but until our profession has lived with these new standards for some time, we will have to exercise some caution.

3.

Another post war aspect of the market place is consumerism. As a social process it has come with mixed blessings. The average consumer today is better educated and better informed. As a result, the professions are much less a mystery. Consumers ask questions, check answers and do an enormous amount of comparison shopping. They (we) have become an aggressive breed, squeezing every dollar, demanding and getting discounts. Consumer organizations have become powerful government lobbies demanding and getting consumer protection legislation such as anti-combine and trust legislation, "fair play" advertising restrictions, safety regulations and regulations against plan-

ned obsolescence. Unfortunately for the professional, one of the fundamental principles of consumerism is "shop for the best price". How many survey jobs do you now obtain that were not the result of a lowest price estimate? My office is constantly pressured by solicitors, real estate agents, developers, builders and the general public to give discounts. The end result has been a serious erosion of the professional relationship. We no longer have clients, we have customers! They ignore our advice and are suspicious of the need for more or different survey work. Our product is misused, altered, the copyright violated at will - and to top it all off, we are sued at the drop of a hat.

At its best, consumerism is constructive, making people informed and able to avoid the charlatans and con artists who give little or no value for your money. At its worst, it gives the competitive advantage to those who cheapen their product in a way not readily perceived by the consumer. In our industry this can easily be done by cutting corners on the standards, but worse yet is the "partial estimate" technique of getting work. Because some consumers believe they know what they need, they get costs for specific work. If you don't say too much and provide estimates only as requested, you have a much

better chance of obtaining work than if you explain everything involved. Clients are often left doing price comparisons on apples and oranges. Generally, they will take the apparently cheaper cost because consumerism is always suspicious of those who appear to be "overselling" their services. Thus this new consumerism tends to erode professional ethics. You can literally talk yourself right out of a job!

To help combat this process, we not only need to strictly enforce our standards and ethics but we urgently need to continue our educational and promotional campaigns in the legal profession, lending institutions, real estate, the general public - anyone who will listen! Perhaps we should contact some of the consumer associations - send speakers to their meetings - write articles for their magazines. We need to demonstrate that our Association with its rules, ethics, standards, lay members, discipline hearings, liability insurance, fees, conciliation service, etc. is dedicated to the protection of the consumer. But we need a fundamental element of trust - a professional relationship - to properly serve their needs.

The foregoing is only a beginning. It is incomplete, not only in what it discusses but more so in the many items not dis-

cussed. But the bottom line is bottoming out! At least in the short term, all three factors I have cited lead to declining profit margins. I believe that we are at a threshold. Unless we intervene in the process, the laws of economics will dramatically change the professions. The June 26, 1984 Globe and Mail (Business Section page B1) published a lengthy article entitled "Costs competition forcing lawyers to accept modern business methods". There were several points of interest:

- (a) It has been legal to advertise your law firm in the United States since 1977 and British Columbia, Alberta and Manitoba now allow it.
- (b) The median earnings of Canada's 37,000 lawyers did not keep pace with inflation from 1979 to 1981.
- (c) Lawyers are paying more attention to the business side of law - larger firms have or are considering non-legal business managers and sophisticated computer systems.

The end result may well be large multi-discipline organizations, owned or in consortium with large retail stores like

Eaton's or Simpsons. The consumer will shop for legal counsel, a property survey, insurance and Christmas toys, all under one roof. Profit margins will dictate ethics and advertising will be a way of life. Professional associations will lose control of their membership and the public will be "protected" by 90 day money-back guarantees! *Caveat emptor* will reign supreme. Not a likely scenario? Perhaps not - I may be too optimistic!

My observation is that this form of marketing is now the most successful. Consumers like it. Simpson's and Eaton's will sell identical survey "products" - this makes price comparisons easy and with a little luck, there may be February sales! Once the "snowball" gets rolling, nothing will stand in the way, certainly not our 700 member Association. We will practice business first and our profession second (if at all). The beginnings of this process can be seen in the American legal profession and to a lesser extent in Canada. According to a recent Globe and Mail report, only 250 lawyers attended their annual Ontario convention (out of 17,500 lawyers). Their members are becoming more alienated from their Association. Promotion and predatory competition for clients is becoming a way of life. Unless we actively study this process and intervene in it, we will follow suit. ●

ARTICLES FROM PERIODICALS

The Canadian Surveyor. The Canadian Institute of Surveying. Volume 38, No. 2 Summer, 1984.

"The Turbulent Transfer Model Applied to Geodolite Measurements." C. S. Fraser. pp 79-90.

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