

MacLachlan, Ian

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# **ECONOMIC DEVELOPMENT AND INDUSTRIAL EMPLOYMENT: A THOUSAND POINTS OF LIGHT?**

**Ian MacLachlan**

The underlying philosophy of economic development planning has experienced a sea of change over the past two decades. The 'smoke stack chasing' dogma of municipal boosterism has been replaced by a new orthodoxy. The attraction of external sources of capital to establish a small number of large scale establishments is now downplayed while the growth potential of many small indigenous enterprises ('a thousand points of light') has become the centrepiece of local economic development policy. The planning literature advocates focusing local economic development on small business and entrepreneurship (e.g. Stankovic, 1987; Teitz, 1987) and public agencies are exploring locally based economic development policy mechanisms (e.g. Economic Council of Canada, 1990; Alberta Municipal Affairs, 1990). While the decentralization of economic development planning and the tailoring of policies to suit local conditions is to be applauded, this new approach implicitly assumes that small scale enterprises are the key to employment growth and economic development.

This paper challenges this new orthodoxy. It disputes some of the empirical analysis on small firm job creation and argues that small enterprises are responsible for a relatively modest share of employment and employment growth at the national, provincial, and municipal levels. While the importance of small business should not be gainsaid, the traditional large firm sector is still a vital component in municipal economic growth and decline.

The shortcomings of data on small enterprises are discussed to encourage a more skeptical interpretation of research findings on employment creation. Economic development strategy should include the attraction of new large enterprises and the needs of existing large employers must be addressed if the community economic base is to be sustained.

## **EMPLOYMENT ACCOUNTING AND FIRM SIZE**

The economic performance of regions is measured in terms of employment. Employment drives migration and population growth and the availability of meaningful employment is vital to the social well-being of communities. While jobs are constantly being created and eliminated, it is the net effect of this 'churning' that determines the fate of communities. In recent years there has been growing interest in job accounting as a means of understanding the dynamics of employment change. The most influential attempt to account for the creation and elimination of jobs has been the seminal research of David Birch using data gathered by Dun and Bradstreet in the United States. Birch (1987) made three significant findings based on establishment job accounting in the U.S. over the period 1981-1985:

1. There was enormous employment turnover as a result of the creation and elimination of employment. Between 1981 and 1985 the total number of new jobs amounted to 35 percent of the employment base while job losses constituted 30 percent of the employment base. The net effect of this frenetic activity was a 5 percent increase in the 1981 employment base. Birch portrays a vivid image of a swirling economic maelstrom in which employment is constantly created and eliminated with net growth of about one percent annually.
2. The level of job loss was relatively constant throughout the business cycle and there was little variance between growing and declining centres. However, the level of job creation was highly variable. Thus it is fluctuations in the creation of new employment that accounts for growth or shrinkage in local labour markets.
3. Of the net increase in jobs between 1981 and 1985, 82.0% were created by firms employing less than twenty workers (Birch, 1987, p.16).

### **Accounting for Job Creation in Canada**

A database created from a Canadian DMI file was developed by Birch and his staff at MIT's "Program on Neighbourhood and Regional Change" using the same basic assumptions and methods previously employed in the U.S. (Regional Industrial Expansion, 1986). Table 1 summarizes some of the most significant components of employment change over seven years from 1976 to 1984. First, the level of job turnover (losses plus gains) was immense relative to the base level of employment. In the small firm sector there were more jobs created and eliminated than actually existed in the base year. Some 87 percent of the net employment increase in Canada between 1976 and 1984 was in establishments employing fewer than 20 people. Thus the findings are consistent with Birch's (1987) American research.

These results have been seized by policy makers and interest groups representing small business as justification for fiscal support and policy programs to foster growth and development of small businesses. As well, they have been used to argue that since it is the rate of job creation which determines overall regional employment growth (Baldwin and Gorecki, 1990) there is little reason to take much interest in employment losses. In this view, a certain level of job loss is inevitable if jobs are to be created; indeed the exit of unprofitable enterprise is healthy as it will concentrate the factors of production in those sectors or regions that will realize the highest returns. In Lester Thurow's words (1980, 21), "At the heart of capitalism and competitive markets lies the doctrine of failure". Following this sort of reasoning, economic policies at all levels of government have come to emphasize employment generation rather than employment contraction and the small business sector has taken pride of place.

The federal government adopted a National Policy on Entrepreneurship in August 1988 that describes small business as the "motor that drives Canada's record economic growth" (Industry, Science and Technology Canada, 1988). Alberta's 'Communities on the Grow' manual states, "small business accounts for 80 percent of employment creation or new jobs." (Alberta Economic Development and Trade, no date). This economic development guide goes on to declare that the most effective way to create jobs is to encourage small business. The economic

development plan adopted by the Lethbridge and District Community Futures Program Society (1989) echoes this assertion: "Small business is the engine of growth in the North American economy, creating in excess of 80 percent of all new jobs." This claim is used to justify the Community Futures' emphasis on diversification through small business.

**Table 1**  
**Employment Gains and Losses by Firm Size - Canada 1976-1984**

	Employment Size Group (thousands, percents in brackets)		
	1-19	20+	Total
Employment gains	1 093 (38.9)	1 716 (61.1)	2 809 (100.0)
Employment losses	718 (30.2)	1 661 (69.8)	2 379 (100.0)
Net change	375 (87.3)	55 (12.7)	430 (100.0)
Turnover (gains + losses)	1 811 (34.9)	3 377 (65.1)	5 188 (100.0)
Base Employment 1976	1 492 (27.9)	3 858 (72.1)	5 350 (100.0)

Source: Raw data from "A Study of Job Creation in Canada" Statistical Analysis, Department of Regional Industrial Expansion (1986).

### **An Evaluation of Employment Creation Data**

The 'thousand points of light' concept has become perpetuated at all levels of government based on the idea that small business is responsible for the lion's share of jobs and job creation. However, this conventional wisdom is based on questionable data which are often misinterpreted.

The creation of employment is an important goal of regional development policy but the available data do not warrant the emphasis currently given to the small business sector. The development of locally based entrepreneurship is politically attractive but the reality is that communities depend on external trade and external investment. And many of these linkages with the outside are dominated by the large firm sector.

The figures used in Table 1, those used most often to describe the importance of small firms in job creation are derived from information collected by Dun and Bradstreet known as the "Duns Market Identifiers" (DMI) file. The DMI file is based on credit records which were never intended as the basis for conclusions about aggregate employment change. The file is not a census or a representative sample of establishments; for example, the branches of multilocal firms are under-represented as their credit worthiness is effectively the same as the parent firm. Clerical errors, inconsistent reporting by some 1,700 Dun and Bradstreet agents, changes in coverage, and failure to do comprehensive annual updates detract from the reliability of these records for longitudinal employment accounting. Even more serious is the tendency to identify changes in ownership, legal status, or organization of continuing establishments as the creation of entirely new firms. Schwartz (1987) examined a sample of 514 American establishments which the DMI file identified as newly created since 1979. He found that only 35.2 percent were truly new businesses; 44.8 percent were actually short distance moves of continuing firms and 23 percent had undergone some form of ownership change or organizational restructuring.

The Department of Regional Industrial Expansion (no date) conducted a similar survey on the Canadian database. Of a sample of 216 firms identified as births (newly formed business establishments), only 76 (35 percent) were actually new. The proportion of true births ranged

from 82 percent in the less than 20 employee category to a dismal 11 percent for firms employing more than 500 employees. Most of the 65 percent identified as 'false births' had merely undergone some form of name, organization, or location change. Thus there is a bias in the DMI file which tends to inflate the importance of small firms and the overall level of employment turnover.

The second problem is the misleading or incorrect way that the findings of employment accounting are reported. Employment is constantly expanding and contracting as jobs are added to and subtracted from the employment base. The difference between employment gains and employment losses is net employment. It is an accounting abstraction. Yet it is only in terms of this accounting abstraction that small business really shines as an employment creator. Unfortunately many of the agencies that cite these data to substantiate their emphasis on small business policy have neglected to use the word 'net'. The assertion that small business creates over 80 percent of all jobs is an urban myth.

Returning to Table 1, the disaggregation of net change into two gross components: gains (births plus expansions) and losses (deaths plus contractions) conveys quite a different picture. The large enterprise group accounts for some 61 percent of all the jobs created and 70 percent of all the jobs lost. The most influential determinant of net employment change is the number of jobs lost by the large establishment group. The small firm sector is responsible for a minority of the gross job creation and a minority of the employment base.

### **Employment Change in Alberta**

The data displayed in Table 2 were compiled from data provided by Alberta's Ministry of Economic Development and Trade. While this data source is more comprehensive than the DMI file, it also has serious liabilities. These figures were developed by Statistics Canada using a longitudinal database constructed from annual payroll information as reported to Revenue Canada through the T4 system. Employment is estimated through a surrogate 'average labour unit' (ALU) which is calculated by dividing total payroll by industry and province specific averages. The ALU is a very rough approximation of employment which assumes that the earnings of workers in

**Table 2**  
**Employment Gains and Losses by Firm Size - Alberta 1978-1988**

	<b>Employment Size Group</b> (thousands, row percents in brackets)		
	<b>1-19</b>	<b>20+</b>	<b>Total</b>
<b><u>Continuing Firms</u></b>			
Employment gains	72.9 (28.1)	186.5 (71.9)	259.4 (100.0)
Employment losses	-22.2 (21.2)	-82.5 (78.8)	-104.7 (100.0)
Net change	50.7 (32.8)	103.9 (67.2)	154.6 (100.0)
<b><u>Birth of New Firms</u></b>			
	228.2 (65.0)	122.9 (35.0)	351.1 (100.0)
<b><u>Death of Firms</u></b>			
	-88.5 (38.8)	-139.7 (61.2)	-228.2 (100.0)
Net Change	190.4 (68.6)	87.2 (31.4)	277.6 (100.0)
Base Employment 1978	174.0 (20.3)	685.2 (79.7)	859.2 (100.0)
Base Employment 1988	364.4 (32.1)	772.4 (67.9)	1 136.8 (100.0)

Source: Raw data from Alberta Economic Development and Trade, Small Business and Industry Division. Tabulation from "Employment Dynamics".

continuing employment, those newly hired, and those who are terminated are distributed in the same proportions as they were for the firm size range, industry, and province as a whole in 1978. Thus the ALU measure may be biased in total and in some of its sub-totals and may vary over time (Statistics Canada, 1988, 14).

Taken at face value, the distribution of employment (average labour units) suggests that Alberta relies less on the small firm sector than does Canada as a whole. Table 2 suggests the following conclusions:

1. The small firm sector accounted for 68.6 percent of the net employment increase in Alberta between 1978 and 1988, considerably less than the 87 percent claimed for Canada using Dun and Bradstreet data. The most influential source of the net growth in Alberta's small firm sector was the nearly one quarter million jobs created by the birth of new establishments (those which existed in 1988 but were not apparent in 1978). Perhaps more significant is the growth in the relative size of the small firm sector. In 1978 small firms accounted for 20.3 percent of total employment; by 1988 this had increased to 32 percent.
2. However, the large establishment sector still makes up 68 percent of the province's total employment. The bulk of employment gains stem from the expansion of existing large establishments (186,500 or 72 percent) while the bulk of the losses (139,700 or 79 percent) arise because of the shutdown and disappearance of large establishments.

### **Lethbridge Manufacturing Employment**

Since there are no published employment accounts for sub-provincial areas, a longitudinal database was constructed for Lethbridge manufacturing firms using nine approximately biennial editions of Scott's Industrial Directory spanning 1968-1989. As a source of regional employment data, Scott's also has shortcomings. Some firms are not contacted or do not respond to requests for biennial updates and in such cases the information from the previous edition is simply repeated in the next edition. The coverage is sometimes inconsistent. (For example dental labs were included in the directory as manufacturers of dental appliances in 1968 but were dropped in later

editions as they had been reclassified as dental services). However, the advantage of working with a small data set is that records can be verified individually using street directories, archival documents and direct contact with extant firms.

Verification shows that the apparent death of one establishment and the birth of another may simply be the transformation of a continuing enterprise. The employment flux that appears to result from a high level of entry and exit is simply due to changes such as: incorporation status and street address. Thus much of what passes for the turbulent creation and elimination of employment is simply an artifact of data collection methods. In their Yellow Pages survey of Edmonton businesses, Wong, Shragge and Rasmussen (1988) removed spurious entries and exits created when business names were recorded differently and the size of firm and employment turnover was reduced considerably.

The Scott's database started out with 354 firm entries which existed at some time between 1968 and 1989. After the database had been carefully edited, matching up separate entries which recorded essentially the same firm, the number of entries decreased to 261 and level of apparent employment turnover decreased dramatically. Since these data cover a twenty year period and include only manufacturers, they cannot be directly compared with Tables 1 and 2. The manufacturing sector tends to have larger establishment sizes than the services sector, thus the sample is biased in favour of large firms.

Table 3 shows the key role of large establishments in Lethbridge's manufacturing sector. They create more employment through birth and expansion and they eliminate more jobs through closure and contraction than does the small firm sector. Of the net increase of 1,156 manufacturing jobs over a twenty year period, the large establishment sector accounted for 69 percent. In 1988 Lethbridge's secondary sector was dominated by large establishments which made up 85 percent total manufacturing employment.

## **IMPLICATIONS FOR COMMUNITY PLANNING**

The serious distortions and biases in national employment databases points to the need for local data collection to provide a credible information base for economic development planning. Second, the

**Table 3**  
**Employment Gains and Losses by Firm Size -**  
**Lethbridge Manufacturing 1968-1988**

	<b>Employment Size Group</b> (row percents in brackets)		
	<b>1-19</b>	<b>20+</b>	<b>Total</b>
<b><u>Continuing Firms</u></b>			
Employment gains	140 ( 5.0)	2646 (95.0)	2786 (100.0)
Employment losses	-155 (11.6)	-1183 (88.4)	-1338 (100.0)
Net change	-15 (32.8)	1463 (67.2)	1448 (100.0)
<b><u>Birth of New Firms</u></b>			
	696 (17.9)	3185 (82.1)	3881 (100.0)
<b><u>Death of Firms</u></b>			
	-327 ( 7.8)	-3846 (92.2)	-4173 (100.0)
Net Change	354 (30.6)	802 (69.4)	1156 (100.0)
Base Employment 1968	267 ( 8.9)	2718 (91.1)	2985 (100.0)
Base Employment 1988	621 (15.0)	3520 (85.0)	4141 (100.0)

role accorded to small business is often overstated in the contemporary trend towards community based economic development. Notwithstanding the many successful firms that have grown from humble beginnings to become global competitors, the vast majority of newly established firms stay small or disappear altogether. And small business is responsible for a minority of employment. Communities still rely heavily on traditional large establishments which are often controlled by enterprises outside the community.

Thus community planners should not become so concerned with self-sufficiency and home-grown entrepreneurship that they slip into a 'grass-roots mercantilism' mentality. Alberta's communities are inextricably bound up in a network of external markets and ownership links to distant centres of control. In Lethbridge, the effect of world prices on agricultural commodities and plant closure decisions made in central Canada by firms such as Molson Breweries and Canada Packers provide vivid illustrations of the negative effects of this external dependence. Yet the community based approach to economic development with its emphasis on 'a thousand points of light' has limited potential to create the employment needed for community survival and growth.

Local economic development strategy needs to acknowledge the importance of large employers. It must continue to provide an environment which attracts new sources of externally based employment and which encourages the expansion of existing firms. Thus traditional concerns of local economic development should not be abandoned while communities experiment with entrepreneurial economic development strategies.

Communities need to stay in touch with the logistical requirements of large establishments and provide modern municipal infrastructure. Reich (1991) reports that a one dollar increase in public infrastructure adds as much to productivity as a four dollar increase in private sector investment. There are very few Alberta communities that do not boast an Industrial Park but most are only partially occupied. Yet many economic development departments have not surveyed the current occupants of their park to see how well their needs are served or what facilities could be planned to enhance opportunities for growth and

expansion in the large firm sector. It is not enough to set aside a district and zone it for industrial use. It is necessary to take the pulse of existing businesses and to provide a level of service that will convince enterprise to reinvest in expansionary times and to persevere when market conditions become adverse.

Economic development agencies need to maintain a wide range of information so that they can provide assistance to existing firms which contemplate reinvestment and expansion. Local information includes an inventory of serviced industrial land, business opportunities, capabilities of existing business, and sources of venture capital. There are a wide array of employment and industrial policy programs operated at the provincial and federal levels to assist in financing, market development, employment expansion, workforce retraining, and technological innovation. Yet surveys continue to reveal that both large and small firms are unaware of these programs. Thus an important mandate for local economic development is to advise and inform both large and small business establishments of the array of programs which are potentially of benefit.

There is no silver bullet for the problem of enhancing, diversifying, and expanding the community economic base. Local economic development planning is constrained to a narrow range of policy instruments and typically has limited resources. Large scale plant closures and layoffs result from recessionary conditions and corporate rationalization decisions which are far outside the realm of community planning. And many entrepreneurs start new businesses without any assistance from the public sector. Yet there is still an important role for local economic development planning to facilitate the expansion of a vibrant small business sector and to enhance the opportunities for expansion of existing large employers. Local economic development strategies should address the needs of both small and large employers in the community.

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