
SELF-EMPLOYMENT AND SMALL BUSINESSES

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New Zealand Planning Council

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FOREWORD

This is the second of three volumes being concurrently released by the Planning Council as the initial publications of a series dealing with employment-related issues. It seeks to give perspective on the job-creation potential of small and autonomous business activity and on policy implications for this area. The findings of some of the international literature on this subject are discussed, together with their relevance to the New Zealand situation.

The authors, Maire Dwyer, Robert Sowman, and Dennis Rose, were members of the Planning Council secretariat (as Mr Rose continues to be), when this work was undertaken. They represent a blending of disciplinary backgrounds and experience encompassing economics, the social sciences and regional planning.

Their analysis provides a useful discussion on the role of small business in the New Zealand economy and enhances understanding of some significant aspects of structural change. It does not reinforce simplistic assumptions about the poten-

tial of small business and autonomous activity of varying kinds to provide dramatic answers to current unemployment problems, but it nevertheless points to areas of possible policy response which could improve the capacity of small-scale economic activity to operate effectively and by so doing, improve its employment-creation and employment-retention potential.

The Planning Council expresses its appreciation of the authors' work, which represents a valuable contribution to the council's broadly-based commitment to employment-related policy analysis.

The views expressed in this paper are those of the authors and are not necessarily shared by the Planning Council.



I. G. Douglas
Chairman

INTRODUCTION

Background

All the employment related work within the Planning Council is concerned in some way with the problem of persistent unemployment its causes, implications and possible solutions.

This paper on the role of sole operators, small businesses and other small-scale production modes in employment was initiated because in recent years increases in the demand for labour by major corporate employers, in both private and public sectors, have fallen well short of the total increase in the number of people seeking work. Its objective is to provide a better understanding of the role of small businesses in production; the generation of income or livelihood for the self-employed; and the generation of employment opportunities for others. As well as assessing the importance of this sector in the economy, interest is focused on factors affecting its growth and the extent to which the constraints stem from technical and production conditions, or are more "institutional" in nature, such as legal and financial constraints.

Essentially, this paper has focused on small businesses, formal self-employment and the generation of full-time paid employment in the formal economy. These are the visible structures. Yet, at its most basic, work or employment is a means of survival, the generation of livelihood. It is worth noting that the predominance of full-time wage and salaried employment is a relatively recent phenomenon (not even 200 years in industrialised countries and not the norm nowadays in some third world countries) and that changes in the labour market may see it again become atypical in the future. Amongst others, the International Labour Organisation (ILO) notes the growth of part-time employment, an increase in temporary employment and sub-contracting, and an increase in clandestine or hidden employment in recent years.

The institutionalisation of wage employment through the growth of full-time paid work, unionised labour, corporate employment, specialised training and career structures has led to the "non-employed" aspects of livelihood being neglected. This includes not only unpaid domestic production and the exchanges that enable those outside the formal, monetised economy to survive, but also the role of part-time employment, "home" work and subsistence lifestyles. Despite their marginal nature in income terms, these forms of work

provide occupations and livelihood. Labour force participation decisions are probably more affected by changes occurring within these informal and less visible work structures, than by wage rates or the supply of employment opportunities. The extent to which the formal economy (including the generation of self-employment and small businesses) depends on and reacts to changes in the informal sector is not known.

Issues relating to central government's intervention in the economy have, by and large, been side-stepped. We are conscious of four areas which deserve attention but can no more than flag these at this time.

First, we have not been able to form a clear judgement on the implications on the on going processes of industrial concentration for policy towards small business. While it is frequently argued (with obvious merit) that government should be concerned with promoting efficiency in business rather than promoting business of particular size, account needs to be taken of entry inhibiting behaviour by large firms. Commercial practices such as these have been widely studied and are commonly subject to statutory review with the objective of promoting the public interest through greater competition. A case could certainly be made for reviewing the workings of the Commerce Act to assess its impact upon the continuing evolution of new entrepreneurial activity.

Secondly, there is the question of subsidising the small business sector as an aspect of employment policy. While the subsidisation of such activity may well, in some cases, give a better return than expenditure on other employment programmes, a question clearly arises about possible distortions. Do we help employment by subsidising resources into competition with unsubsidised but marginal private enterprises? If we wish to subsidise entrepreneurial activity, is it better to focus the subsidy directly on the unemployed or to use it to encourage more successful and experienced wage and salary earners into their own businesses, thus vacating positions which could be taken up by others, including the unemployed? Thirdly, there is a more philosophical issue related to the role of minimum standards on matters such as conditions of employment, wage rates, safety regulations and sick pay. When society legislates such standards, it creates boundary conditions which will impact to greater or lesser extent on

productive decisions, and thus may conflict with other objectives. Resolution of conflicts between competing objectives is properly the subject of considerable attention. We do not enter that field here rather than to note that the basic standards which society has evolved over the years are fundamentally important and to suggest that it is most unlikely that an expansion of marginal self-employment secured through an under-cutting of prevailing standards would yield an overall gain to society.

Finally, some comment is required on venture capital. Owner's equity is of course one of the defining characteristics of self-employment the possession of sufficient capital is a necessary precondition of setting up on one's own. The successful small venture which wishes to expand has a similar need to expand its equity either by ploughing back its profits or by broadening its ownership base. We have not been able to devote sufficient attention to this matter and suggest it might usefully be the subject of a further study.

The Discussion

The initial sections of this paper define the self-employed and small business sector and attempt to measure the contributions of this sector to the economy in terms of the numbers of people who opt for this form of employment, as well as the numbers employed within small businesses in the different industrial groups.

Common characteristics of self-employment are drawn together and the identification of trends in self-employment leads on to a discussion of factors impacting on this sector, such as economic conditions, technical change, regulations and controls, access to finance and public sector policy.

The contribution of small firms to the economy with respect to job generation, innovation and efficiency is then discussed.

THE SIGNIFICANCE OF THE SELF-EMPLOYED AND THEIR SMALL BUSINESSES

Defining the Self-Employed and their Businesses

This paper focuses on employment in the formal economy and outside the major corporate structures. This includes not only the self-employed, operating on their own or in partnerships or co-operatives, but also their employees.

The majority of businesses operated by the self-employed are small in scale and simple in structure. There are several characteristics which are widely accepted as defining a small firm. As stated in the Bolton Report¹, a small firm is one which:

- has a small share of the market
- is managed by its owners
- is not part of a larger enterprise

The Development Finance Corporation's Small Business Agency translates these characteristics into likely maximums of employees, defining small businesses as those which employ fewer than 50 in the manufacturing sector, 25 in the wholesale and retail sector and 10 in the service sector. In terms of turnover, the limits are set as \$1 million in wholesale, \$250,000 in retail and \$100,000 in the service sector². These size definitions are small by international standards but appropriate in the New Zealand context where most businesses are small³.

This definition effectively excludes activity in the informal economy, although this can be considered a form of self-employment in that it generates or contributes to people's livelihoods. This includes activity (full or part-time) which generates an income, that is the black economy, as well as activity which enables sustenance through barter or self-sufficiency. Estimates of the extent of hidden production are notoriously unreliable and no extensive attempts have been made to do so in New Zealand⁴. Regardless of the measurement

problems, and our lack of knowledge about the informal economy, it is a fact that some people earn their livelihood (all or part) through informal or hidden production, others substitute their own production for purchases. Similarly, unpaid domestic work is excluded. This cannot really be considered a form of self-employment as, although this productivity does secure the workers' livelihood, typically through an informal exchange with an employed partner, it is not possible for home-makers to maintain an independent livelihood from this form of unpaid, productive activity.

Measurement

Any measurement of the small business sector, and its significance as an employer, can only be approximate. The self-employed are a self-defined category and there is no easy way to determine their degree of autonomy. Some may be working on a regular basis for the corporate sector on longer-term contracts and their conditions of work may be indistinguishable from those of wage and salary earners. Outworkers generally face set rates of payment and limited control over the quantity of their work, yet they may perceive themselves as self-employed. Members of cooperatives, who are in fact owner-workers, may identify themselves as wage and salary earners.

Most business statistics relate to establishments, a business entity located in a particular place, rather than to firms, some of which consist of many separate establishments (such as branches of a bank or retail chain). It has been estimated

1 *Small Firms*, Report of the Committee of Inquiry on Small Firms, chaired by J.F. Bolton, HMSO, London 1971

2 Small Business Agency, Annual Report, Wellington, 1979

3 Devlin M.H., *The Small Business Sector in New Zealand: An Introductory Perspective*, Development Finance Corporation, 1984. Devlin estimates 92% of New Zealand firms employ fewer than 20 people.

4 Further discussion of measurement difficulties can be found in Carter, M., *The Hidden Economy: What are the Issues?*, Discussion paper No. 84, ANU Centre for Economic Policy research, Canberra, Australia, December 1984. Some indication of the extent of informal economic activity in New Zealand can be gained from a sample survey of Christchurch households where three-quarters of the households carried out their own interior decorating and minor maintenance tasks, one third undertook major car repairs and one quarter their own hairdressing — documented in Cant, G. and Pawson, E., "Redefining Work: The Role of Informal Household Activities", in *Canterbury at the Crossroads*, NZ Geographical Society, 1983

that between 5-8 percent of small firms are subsidiaries⁵.

The Small Business Sector as an Employer

The business censuses, undertaken by the Department of Statistics and covering most industries, provide the most comprehensive and reliable source of data on employment within different sized establishments. From these censuses, Devlin calculated the proportion of employment within the various industrial sectors and estimated that small firms (as defined by the Development Finance Corporation) employ almost half the private sector workforce⁶.

Building from the same data source as Devlin, estimates of employment within different sized establishments have been developed for 1981 to enable comparison with population census measures of self-employment and numbers engaged. Limitations on the comparison include some inconsistencies in industrial sector coverage (the business census classifies firms on the basis of their major activity whereas the population census classifies individuals according to the particular industry they work in), the omission of one person businesses from the census of manufacturing and the likelihood of some undercounting of very small enterprises in other censuses, and the assumption that there had been no change in the proportions of people engaged in the variously sized establishments between the dates of the population and business census. As mentioned, an additional handicap is the lack of separated data on the public and private sector for employment within establishments defined by size. The method used for devising the estimates and more extensive information from the business census and the 1981 population census are available from the New Zealand Planning Council (file POP/EM/1/9). Tables 1 and 2 summarise the results.

Small business employment clearly predominates in some areas. Within those industrial groups that are mainly in the private sector, small businesses provide a high proportion of employment in the trade and service sectors—retail, restaurants and hotels, agricultural services, real estate, personal and household services. Larger businesses are the norm within manufacturing, where most of the workforce (62 percent) are employed in enterprises with more than 50 employees.

The contribution of small firms to private sector employment is less clear in those sectors with a mix of private and public production. In most

cases, however, public sector employment is in larger establishments. In the transport, storage and communications sector, the railways, Air New Zealand and the Post Office are major employers in large establishments. Similarly, high schools and universities are major employers in division 93, social and related community services.

The sectors not covered by the business census data include farming and fishing⁷. In the agricultural sector, where self-employment is particularly high, over 53 percent of the labour force in agricultural and livestock production and 62 percent of those engaged in fishing are self-employed. A total of approximately 65,000 are self-employed.

The major industrial division 4, electricity, gas and water, has a very small private sector (6 percent of the labour force) and division 91, central government administration and defence, is entirely in the public sector. Within the finance sector, the two industries omitted financial institutions and insurance have low numbers of self-employed (1,000) and appear concentrated in larger establishments. The minor industrial groupings, not covered in the census of services, include research and scientific institutions, and museums, libraries and gardens where most activity is in the public sector, but there is also some small-scale private sector activity. Also excluded are theatrical producers and independent artists which together comprise nearly 2,000 people, all in small units and most of whom are self-employed. The other exclusions are miscellaneous groups in division 9 which include approximately 600 self-employed (1981 census).

The 1981 estimates derived from business census data suggest that combined employment in small scale manufacturing (enterprises with fewer than 50 persons engaged), wholesale and retail trade (fewer than 20 persons) and service and other groups (fewer than 10 persons) totalled nearly 375,000 persons.

Without becoming too concerned about the accuracy of what can only be "guesstimates" it seems that the omissions of the self-employed in the manufacturing sector, on farms and fishing, in insurance and finance and the community social service sector, totalling approximately 74,400 people, as well as those employed in small businesses in these sectors, would more than outweigh any overstatement of employment in small businesses (in the business censuses) due to the inclusion of employment in the public sector. The extent of employment within establishments that

5 Devlin, M.H., op.cit.

6 Devlin, M.H., op.cit.

7 The Census of Fishing did not include any information on the size (by numbers engaged) of establishments.

Table 1

SELF-EMPLOYMENT AND EMPLOYMENT IN SMALL BUSINESSES.

POPULATION CENSUS 1981

<i>Industrial Sector</i>	<i>Self-Employed No Employees</i>	<i>Self-Employed Has Employees</i>	<i>Private Sector</i>	<i>Public Sector</i>	<i>Total Actively Engaged (Full & Part-Time)</i>
1. <i>Agriculture Hunting etc.</i>	41,166	29,448	141,477	7,734	149,322
112 <i>Agricultural Services</i>	3,168	1,542	14,376	273	14,661
12 <i>Forestry & Logging</i>	507	399	4,872	5,181	10,095
2. <i>Mining and Quarrying</i>	105	84	3,333	1,290	4,635
3. <i>Manufacturing</i>	6,123	4,758	302,811	9,552	312,417
4. <i>Electricity, Gas & Water</i>	12	12	938	14,172	15,105
5. <i>Building & Construction</i>	15,180	6,462	70,724	15,015	85,773
6. <i>Wholesale, Retail etc.</i>	10,206	18,132	241,692	4,674	246,395
61 <i>Wholesale</i>	1,020	876	67,026	1,881	68,925
62 <i>Retail</i>	6,843	11,643	130,059	756	130,833
63 <i>Restaurants & Hotels</i>	2,343	5,613	44,598	2,037	46,644
7. <i>Transport, Storage, Communication</i>	3,513	1,644	36,516	72,495	109,059
8. <i>Finance, Insurance etc.</i>	4,503	7,020	81,069	14,832	95,958
83 <i>Real Estate, Business</i>	3,873	6,639	48,876	2,136	51,030
9. <i>Community, Social, Personal Services</i>	8,673	9,084	109,938	234,147	346,140
92 <i>Sanitary & Similar</i>	705	522	8,157	3,156	11,328
93* <i>Social & Related Community</i>	1,506	3,738	39,711	136,143	175,944
94* <i>Recreational & Cultural</i>	333	416	3,711	4,692	10,115
95 <i>Personal and Household</i>	4,665	4,032	39,000	165	39,183
<i>Not adequately defined</i>	3,651	1,743	13,065	330	22,416
<i>Total (all major groups)</i>	93,132	78,381	1,001,550	374,241	1,387,224
<i>Total — Industrial Groups covered by business censuses</i>	49,884	48,368	813,779	254,772	1,070,635

Table 2

SELF-EMPLOYMENT AND EMPLOYMENT IN SMALL BUSINESSES.

ESTIMATES FROM 1981 BUSINESS CENSUS

<i>Industrial Sector</i>	<i>One only</i>	<i>2-5</i>	<i>6-9</i>	<i>10-19</i>	<i>20-49</i>	<i>50+</i>	<i>Ancillaries</i>	<i>Total Actively Engaged</i>
1. <i>Agriculture Hunting etc.</i>								
112 <i>Agricultural Services</i>	1,090	2,949	1,290	1,922	2,536	3,401	112	13,301
12 <i>Forestry & Logging</i>	192	743	736	969	1,992	3,569	193	8,393
2. <i>Mining and Quarrying</i>	—	619	554	756	—	2,040*	341	4,225
3. <i>Manufacturing</i>	—	6,061**	18,882	26,471	48,697	185,295	13,607	299,013
4. <i>Electricity, Gas & Water</i>								
5. <i>Building & Construction</i>	2,639	15,859	6,988	8,854	12,389	25,548		72,277
6. <i>Wholesale, Retail etc.</i>								
61 <i>Wholesale</i>	559	8,401	8,904	15,615	21,652	22,117	5,851	83,099
62 <i>Retail</i>	3,359	54,730	24,055	19,714	18,392	17,491	3,224	140,605
63 <i>Restaurants & Hotels</i>	564	14,339	8,142	9,683	13,717	12,840	612	59,897
7. <i>Transport, Storage, Communication</i>	3,495	5,616	4,570	5,785	8,219	69,501	5,603	102,788
8. <i>Finance, Insurance etc.</i>								
83 <i>Real Estate, Business</i>	1,246	9,077	7,079	9,787	9,324	8,559		45,072
9. <i>Community, Social, Personal Services</i>								
Sanitary & Similar	447	1,785	778	1,003	2,565	9,212		15,790
93* <i>Social & Related Community</i>	1,937	14,721	6,937	12,828	26,894	97,602	1,420	162,339
94* <i>Recreational & Cultural</i>	490	1,786	1,705	2,045	2,350	5,977		14,353
95 <i>Personal and Household</i>	1,458	12,818	5,700	3,297	1,690	896		25,859
<i>Not adequately defined</i>								
<i>Total (all major groups)</i>								
<i>Total — Industrial Groups covered by business censuses</i>	17,426	149,194	96,320	118,729	170,417	464,048	30,963	1,047,011

* Numbers employed in enterprises employing more than 20 people.

** Numbers employed in enterprises employing less than 5 people.

are not independent firms is uncertain, however, because although it has been estimated that between 5 and 8 percent are subsidiaries, there are no indications as to how large (in employment terms) these subsidiaries are.

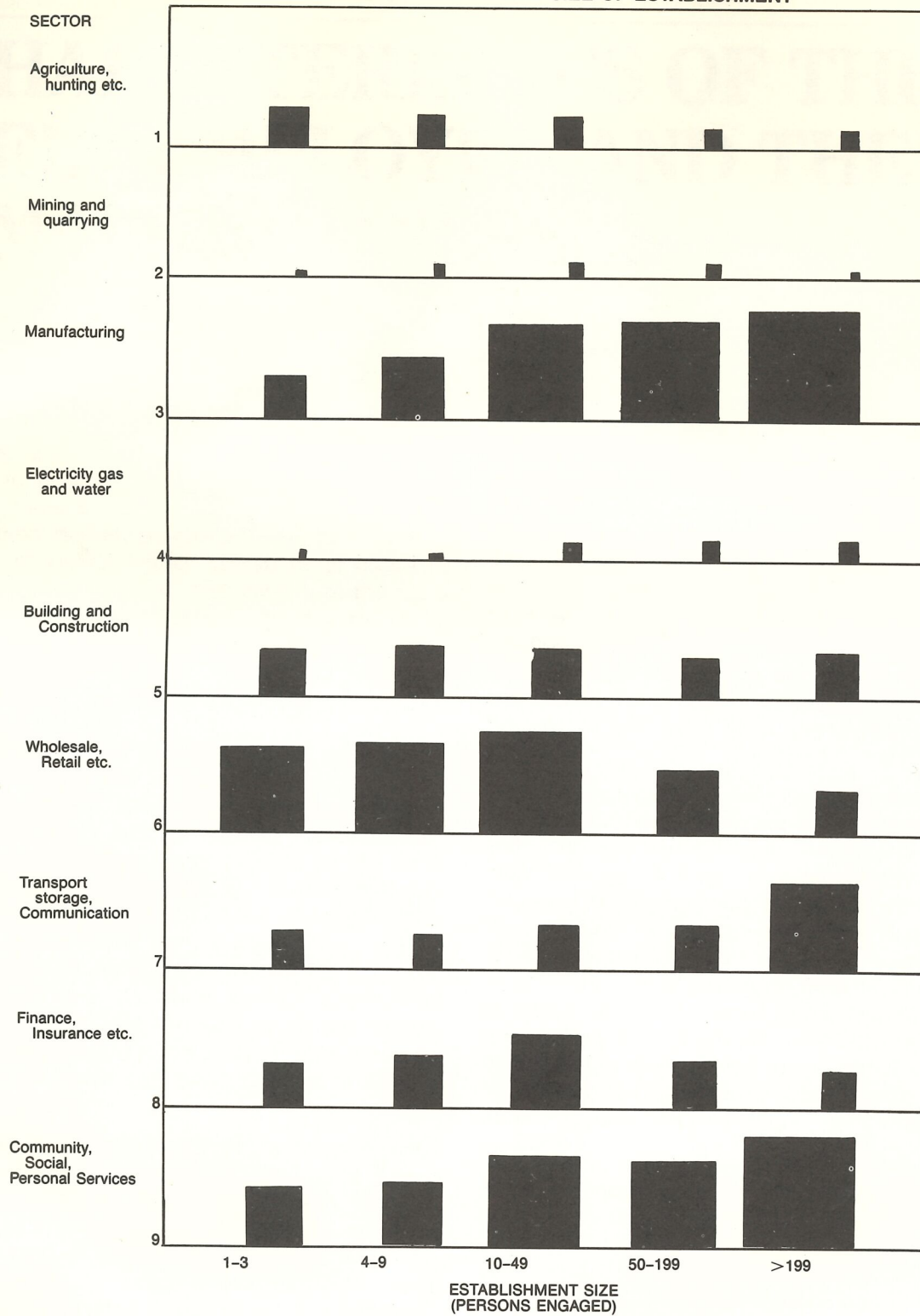
While the data sets for the population census and business censuses are quite different, the overall total for the actively engaged in the 1981 business census estimates is only 23,631 fewer than the equivalent figure derived from the population census. As is to be expected, those industries with a high proportion of self-employed, tend to have a high proportion of the labour force engaged in small businesses. Self-employment is high in agriculture, trade and services. High concentrations have been noted in particular industries- farming, painting and paper hanging, bricklaying and blocklaying, milk-vending, unlicensed restaurants, take-away food shops, unlicensed motels, taxi services, private dancing, music and driving schools, private medical and dental practice, writing and composing, footwear and watch repairs, barber shops⁸. Certain forms of production are naturally small and are most efficient at this level. Aspects of farming, many of the construction and other skilled trades, retail outlets and artistic or craft occupations are such "natural" one or two-person businesses, reflected in the high proportions of self-employed in these occupations. Natural smallness is not static. Changes in technology, marketing, management and cost structures all effect the efficiency of small

production units. The local grocer is giving way to the larger supermarket, the advent of cartoned milk threatens milk deliverers, developments in computer technology have witnessed a similar growth in small software and marketing companies. However, small businesses exist in all sectors and play an important role as a seed bed and part of the life cycle of firms. These points concern the role of self-employment and small business in the economy and will be returned to later.

In commenting on an earlier draft of this report, the Department of Statistics supplied a special analysis of the contents of the department's Business Directory. The directory provides an on-going record of the key characteristics of business, professional and public sector units engaged in the production of goods and services. The record is progressively updated but, at any point in time, its contents are of varying age. Although the record aims to be comprehensive, there are some areas where coverage is less than complete. Farms operated by individuals or partnerships are excluded. Coverage of sole operators is thought to be thin, particularly in activities without an obvious "shop front". Coverage of government services is not complete. Directory figures for the number of establishments and number of persons engaged by size of establishment and NZSIC section are printed in Appendix 1. The directory data are broadly comparable with those contained in Tables 1 and 2. They are summarised in Chart 1.

8 Easton, B., *Income Distribution in New Zealand*, New Zealand Institute of Economic Research, Research Paper 28, 1983

Chart 1
NUMBERS EMPLOYED BY SECTOR AND SIZE OF ESTABLISHMENT



Source: Communication from Department of Statistics.

CHARACTERISTICS OF THE SELF-EMPLOYED AND THEIR SMALL BUSINESSES

The Viability of Small Enterprises

Certain forms of self employment and small business are well rewarded in terms of income and/or lifestyle, and can be seen as a preferred option in employment. Farmers, self-employed professionals, artists and well-financed entrepreneurs come to mind. These kinds of self-employment, which could be likened to the primary sector of the labour market, are characterised by high ownership of capital (either human or physical) or land, and some control over entry into the occupation or business (these can be inherent or institutional) which consequently influences their ability to generate high incomes, participate in capital gains and enjoy a chosen lifestyle.

At the other end of the spectrum are those whose involvement in the non-corporate sector represents a lack of choice and opportunity, either because of their lack of skills or non-availability for wage or salaried employment or the non-availability of employment opportunities. Examples are unemployed who form a scrub-cutting group, house-bound women who knit jerseys for sale, rural communities which develop a tree nursery to raise cash, etc. These forms of employment are characterised by low skill or capital requirements, and no control over entry into the occupation and hence over wage rates or availability of employment.

In between these extremes are a range of small business opportunities which offer more than a marginal existence but often not more than the dream of high income or stability. As new businesses, such — ventures in the trade, retail and service sectors, for example — are particularly fragile, demanding long hours of work for little income from their owners. The high closure of small businesses in their first year reflects their fragility. Many, however, become established and in areas where small scale constitutes a natural mode of production, continue to provide an adequate income. A few develop into larger firms.

Records demonstrate the high average incomes of many self-employed, with professional training⁹.

For farmers and other self-employed whose livelihood is dependent on the ownership of valuable assets, the flow of annual earnings may not be so dramatic, although there is the possibility of capital gains. There is little more than anecdotal evidence concerning the income levels of the marginally self-employed. Home-based crafts, particularly sewing and knitting, child-minding and other "home" work are typically lowly paid. The survival of many of the newly created work-cooperatives and worktrusts is dependent on members working for a low hourly rate¹⁰. A recent Crafts Council survey of its member craft producers, which covered people who earned at least \$2,000 per annum from their craft, found that only 10 percent earned more than the average weekly wage.

It is not always easy to distinguish between forms of self-employment that will always be marginal and where growth represents a lack of choice for individuals and a form of under employment or disguised unemployment, and those which have the potential to develop into viable businesses. The acquisition of skills or capital assets is of central importance. The form of self-employment identified here as preferred bears this out, and it follows that the opportunity to enter this section of self-employment is very much conditioned by the financial circumstances or life chances (inheritance, acquisition of education) of the individual concerned.

While businesses can be viable as very small enterprises, access to capital is a key requirement for those self-employed who wish to expand their operations. The acquisition of land, premises and equipment, the purchase of stock and the hiring of labour all presuppose access to capital. Although some part will be financed by borrowing, the limits of such borrowing, while usually determined with reference to the owner's own equity, may often be modified by a belief that small business is "high risk". It is worth noting that many of the preferred forms of self-employment have less difficulty with expansion. Self-employed professionals provide services to their clients and

9 NZ Public Service Association, *Economic Information*, Vol. VIII, 1984

10 New Zealand Federation of Voluntary Welfare Organisations (Inc), *Dialogue*, May 1984

do not generally require a large build-up of capital assets to develop their business. Those self-employed who already own physical or capital resources have a secure equity base from which to borrow.

It is a fact that small enterprises are frequently short-lived. In a recent New Zealand study of two manufacturing industries, approximately one third of the firms did not survive the four-year period surveyed¹¹. These figures related to established firms. It is probable that the closure rate for new firms would be significantly higher. Not all short-lived business ventures are failures — some represent change of ownership, amalgamation or replacement by a larger enterprise reflecting a normal part of business growth. In some cases the sale of a business reflects a deliberate decision to move on, following a period of long working hours and reduced leisure, but high income and earnings. Others do represent failure, the personal cost of which can be enormous.

We know little of the reasons for small firm failure — ostensibly they are financial, however this frequently masks the role of other factors — the lack of training, management skills and problems with marketing, all of which in turn can often be attributed to a lack of time or money.

The Small Business Agency stresses the lack of planning and management skills in small business failure, and a recent monitoring of cooperatives assisted by SCOPE¹² revealed that this is so. Of the 171 small cooperatives it assisted in 1982/83, 21 have folded. For the 17 giving reasons for failure, management issues were relevant to nine groups, financial viability to four, markets to three and training to two.

Managerial deficiency is a major problem for small firms. Their financial resources are usually limited and the high cost of consultancy services usually preclude the employment of experts to give management advice.

The vulnerability of small firms also relates to their structure and the inbuilt reliance on the input of one or two key individuals, and frequently family members. Business failure often results from illness or the loss of family support.

Many small firms are also dependent on a narrow range of industry or customer types.

11 Lawrence, S.R., *An Investigation into the Role of the Small Firms in Maintaining and Creating Employment in New Zealand Manufacturing Industry*, Development Finance Corporation, March 1984

12 Small Cooperative Enterprises Scheme operated by the Department of Internal Affairs to assist groups of unemployed to start their own cooperative business

The "domino" effect of a substantial decline in performance of a few large firms in one industry can be devastating on the survival of their small suppliers.

Incomes

Despite the marginality of some forms of self-employment and many new firms, the incomes of self-employed persons are higher, on average, than those of wage and salary earners, as the following figures, derived from the 1981 Census, show:

Self-employed — employer	\$19,310
Self-employed — on own	\$12,945
Full-time wage and salary earner	\$11,170
All Full-time workers	\$11,380
Part-time wage and salary earner	\$ 3,070

These figures are derived as weighted means ignoring those reporting net losses. The figures refer to gross income before tax from sources such as wages and salaries and to net income before tax from own business.

In interpreting differences between these groups it is important to recall that incomes from self-employment usually include some element of a return on capital as well as income earned directly by the proprietor's own labour.

As can be seen from Chart 2, approximately 10 percent of employers with employees earn more than \$40,000 p.a. (1981) with 50 percent of these earning more than \$60,000. Contrasting with this is nearly 48 percent of the self-employed without employees earning less than \$2,000, although this group is also far better represented at higher income levels (\$20,000+) than wage and salary earners.

Hours of Work

It is commonly recognised that the self-employed frequently work long hours. Calculating a mean from the 1981 census, for example, produces the following:

	<i>Hours Worked per week by Full-time Labour Force</i>
Self-employed as an employer	55.2
Self-employed on own	51.2
Wage or salary earner	43.0

This disguises the variability in hours worked, which are apparent in Chart 3. Whereas wage and salary earners show a high concentration in the 40 hours-plus range, the pattern for self-

CHART 2

Employment incomes by employment status

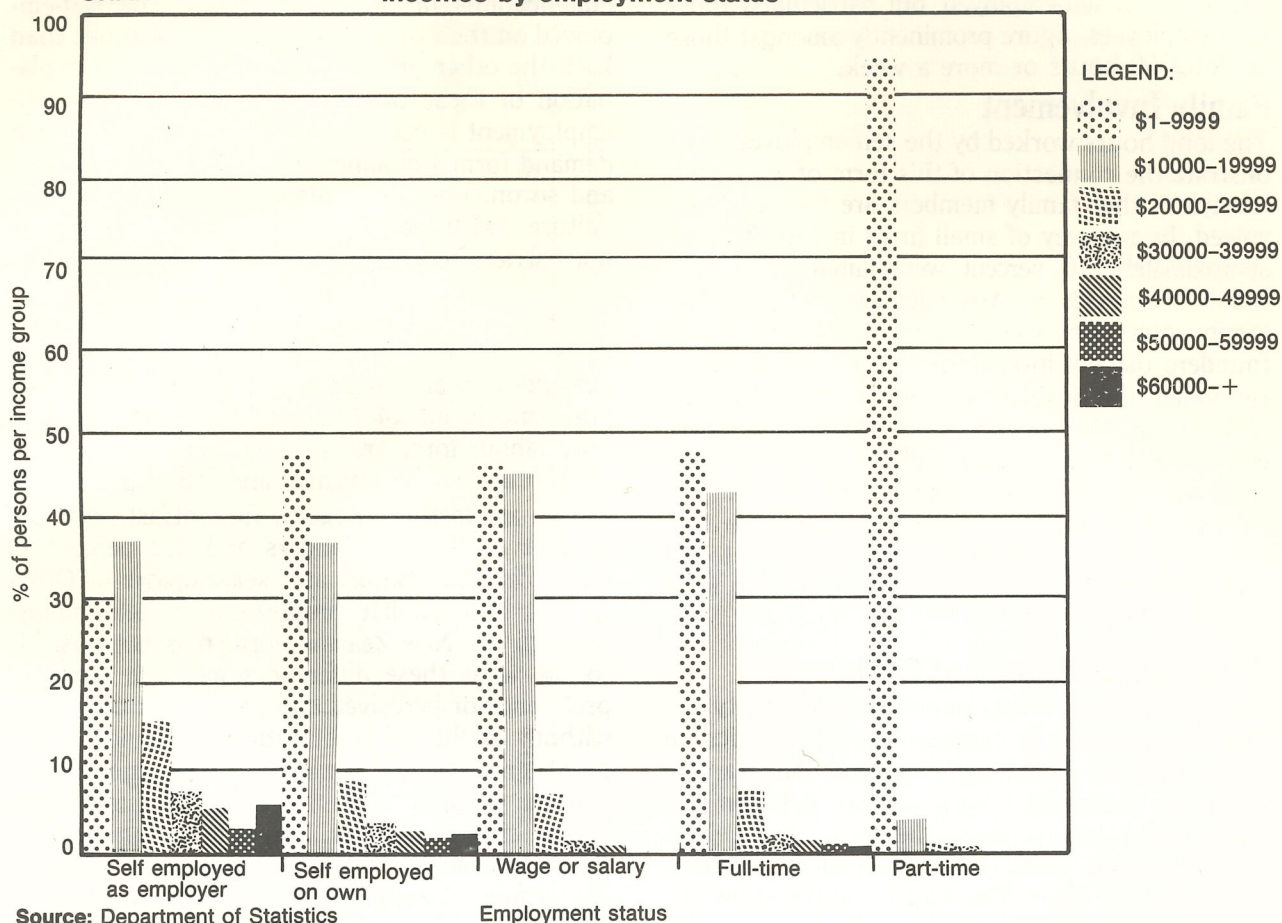
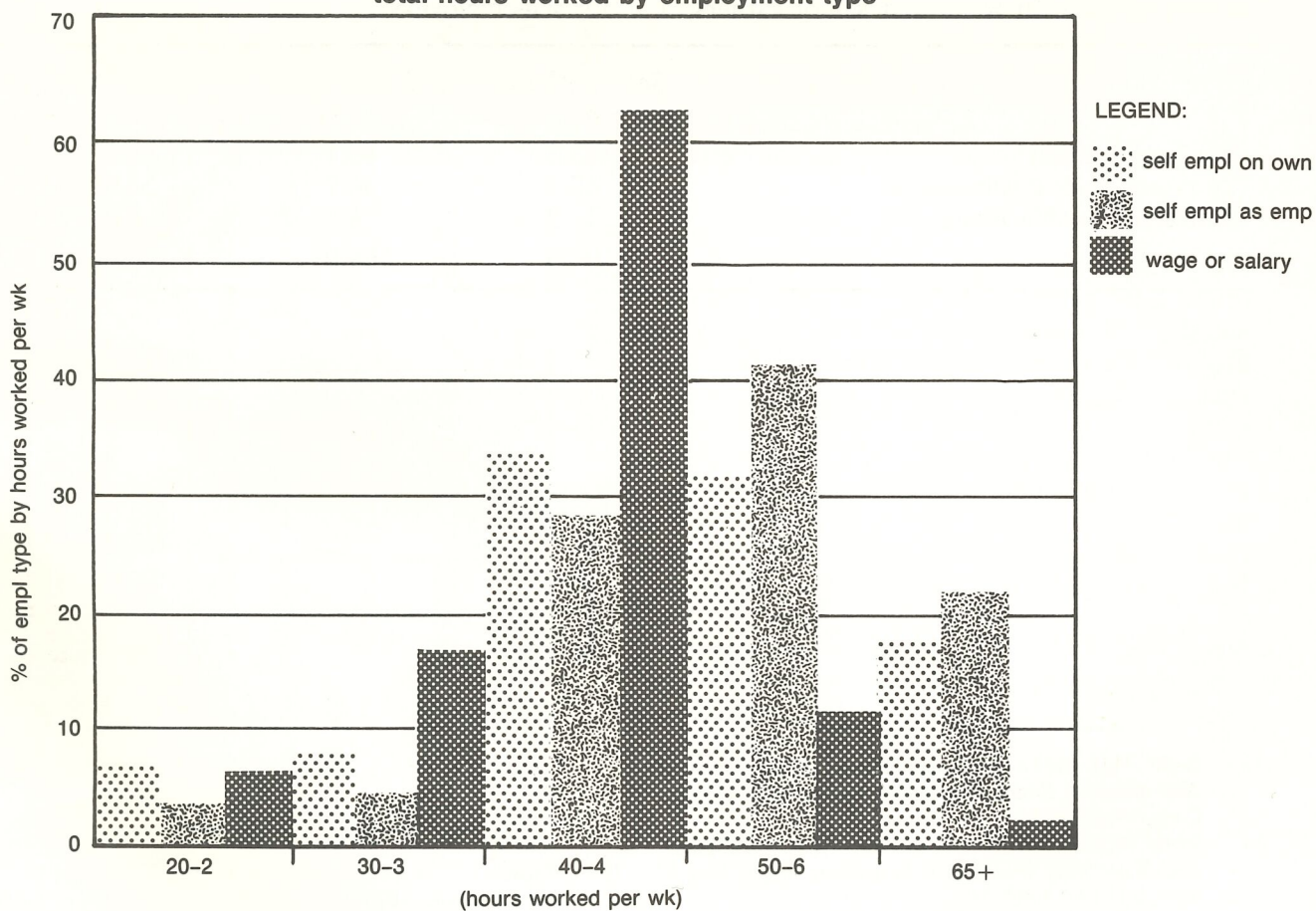


CHART 3

Employment total hours worked by employment type



employed persons is much more dispersed. Both categories of self-employed, but particularly those with employees, figure prominently amongst those working 50 hours or more a week.

Family Involvement

The long hours worked by the self-employed demonstrate the connection of this form of work with lifestyle. Other family members are frequently involved. In a survey of small firms in New Zealand approximately, 70 percent were family concerns¹³. Small businesses in Australia are also typically family enterprises according to research there and founders usually intend that after their death or retirement the business will be continued by their children or other members of the family¹⁴. There is a correlation between a high proportion of self-employed and a high proportion of relatives assisting unpaid within industries. This is particularly so in the agricultural sector where up to 20 percent of the women engaged are unpaid relatives.

Education and Place of Birth

The educational achievements and ethnicity (as much as this can be represented by statistics on place of birth) of the self-employed make an interesting comparison with similar data on the wage and salary earners, the bulk of the New Zealand labour force. The causes of these differences are not clear. The figures below show the educational qualifications for self-employed persons and wage and salary earners.

In comparison with wage and salary earners, a

higher proportion of employers have university qualifications or no qualifications. The self-employed on their own have fewer qualifications than both the other groups. Contributing to an explanation of these differences is the fact that self-employment is common in some industries which demand formal qualifications — dentists, lawyers and so on, however it also predominates in agriculture and trade where formal qualifications are not barriers to entry.

Table 3, derived from the 1981 census, shows marked differences in the involvement of New Zealand-born and migrant populations in self-employment. While 14.1 percent of the New Zealand born labour force are self-employed, 21.7 percent of continental Europeans and 16.1 percent of Asians are in this category. In contrast, only 2.6 percent of Pacific Islanders and 4.2 percent of New Zealand Maori are self-employed. Other groups have similar proportions in self-employment to the New Zealand-born. It is not possible to say what these differences mean in terms of preference or perceived choices or lack of choices without additional information. Historically, migrant groups have commonly experienced hardship or tension, a restricted social status and severe civil disabilities. Boswell¹⁵ suggests that this may account for the prominence of religious and ethnic minority groups amongst business entrepreneurs. Conversely, severe economic disadvantage may discourage other groups from opting for self-employment.

	<i>Self-employed has Employees</i>	<i>Self-employed on own</i>	<i>Wage and Salary Earner</i>
No qualifications	43.8	49.1	39.2
Non-university qualifications	45.1	46.7	54.8
University qualifications	11.2	4.1	5.9
	100.0	100.0	100.0

13 Devlin, M.H. and Le Heron, R.B., *Report on the Survey of New Zealand Small Businesses*, Development Finance Corporation, 1977

14 Johns, B.L. Dunlop, W.C., & Sheehan, W.J., *Small Business in Australia, Problems and Prospects*, Sydney, George Allen & Unwin, 1983

15 Boswell, J., *The Rise and Decline of Small Firms*, George Allen & Unwin, 1973

Table 3
BIRTHPLACE BY EMPLOYMENT STATUS OF FULL-TIME LABOUR FORCE

	New Zealand			Australia		Pacific Islands		UK & Ireland		Continental Europe		North America		Asia		Other	
	All NZ Born	Maori		Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Self-Employed as an Employer	67,029	1,572	6.5	1,572	1.8	682	3.8	423	1.4	5,214	4.1	2,268	9.2	216	4.2	933	7.6
Self-Employed on own	78,426	2,178	7.6	2,178	2.4	1,158	6.5	354	1.2	8,157	6.4	3,069	12.5	381	7.4	1,038	8.5
Wage or Salary Earner	887,727	85,245	85.5	85,245	95.6	15,888	89.1	29,907	97.4	113,685	89.2	19,098	77.7	4,554	87.9	10,164	83.0
Relative Assisting	5,496	222	0.5	222	2.5	114	0.6	30	9.8	438	0.3	159	0.6	30	0.6	114	0.9
																27	0.5

Source: *Census of Population and Dwellings 1981 Vol. 7 Birthplaces and Ethnic Origin*, Table 11 and 31, Department of Statistics

TRENDS IN SELF-EMPLOYMENT AND SMALL BUSINESS

Changes in Self-Employment

The correlation between the proportion of people self-employed in an industry and the proportion employed in small enterprises enables a discussion of trends in self-employment as an indication of trends in small business.

In comparison with the labour force, self-employment has grown very slowly in the last 50 years and in some sectors, notably in agriculture, there has been an absolute decline in the numbers self-employed.

	<i>Self-employed</i>	<i>Total Full-Time Labour Force</i>
1926	121,515	545,593
1951	148,431	740,496
1966	143,255	1,026,039
1971	140,204	1,118,835
1981	171,513	1,332,342

Over the 55-year period since 1926, the total number of self-employed has only increased by 50,000 or 40 percent. The change in the total full-time labour force, on the other hand, represented a further 786,749 or an increase of 144 percent (see also Appendix II).

As a consequence, the percentage of self-employed to total labour force has experienced a downward trend for the last half century or more, with the greatest shift occurring in the 20 years between 1951 to 1971.

	<i>Self-employed as a Percentage of Labour Force</i>
1926	22.3
1951	20.1
1966	14.0
1971	12.5
1981	12.9

As can be seen from Chart 4, the more rapid growth in self-employment seems to indicate a levelling out of the proportion of self-employed to around 12-13 percent of the full-time labour force.

Chart 5, depicting tax return data for the different industrial sectors, clearly illustrates this decline in agricultural self-employment and suggests a fluctuating, though generally static, position within some industry divisions (transport and communication, manufacturing) but identifies steadily increasing self-employment in the financial, insurance and business division, wholesale, and to a lesser extent in building construction.

Factors Impacting on the Self-Employed and Small Business Sector

The trends in self-employment result from a range of factors including technical change and economic conditions as well as institutional factors, in particular the policies of the public sector and private financial institutions.

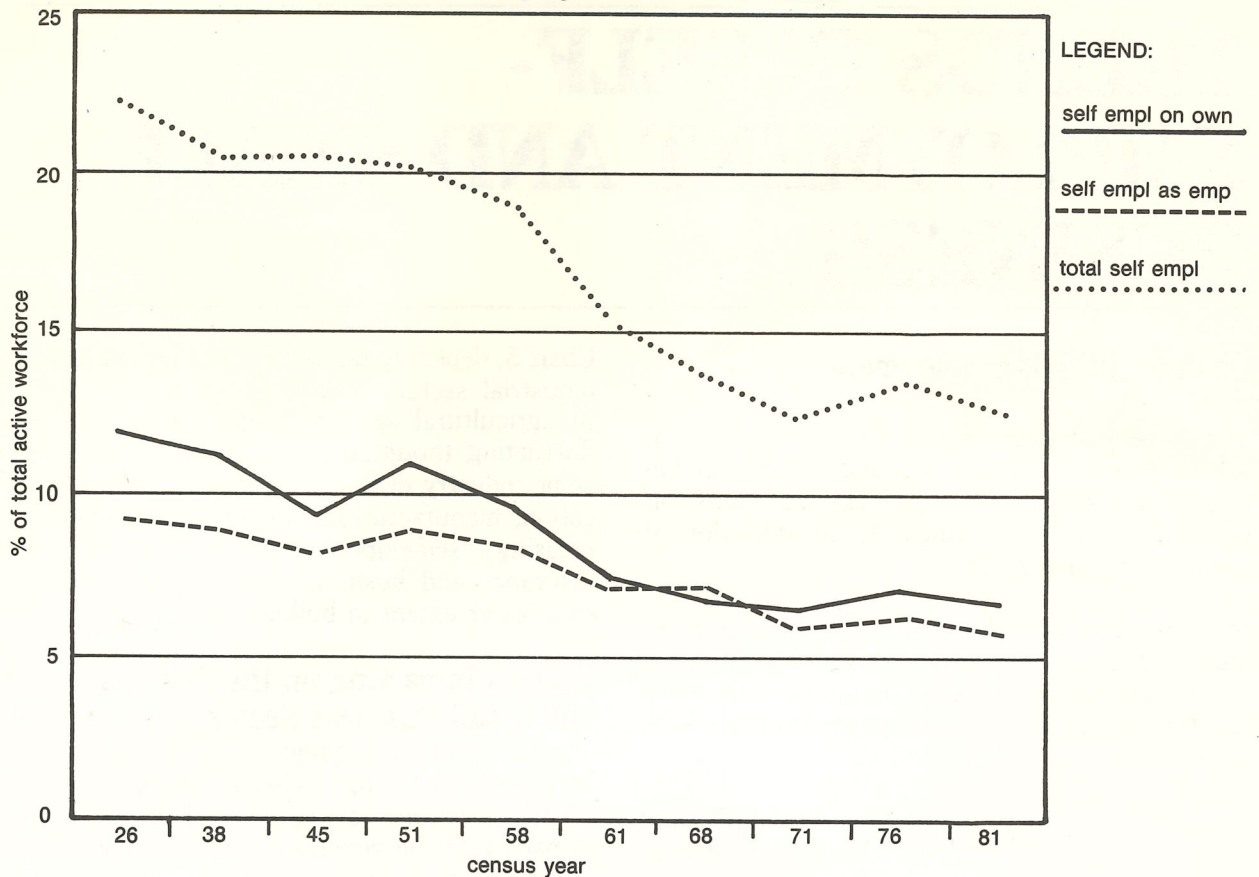
Technical Change

Technological change has often been regarded not only as the driving force behind industrialisation and growth, but also as the reason for the decline in self-employment and small business over time. The discussion on the decline of self-employment in the 1966 census, for example, stresses this link. This view has been supported by theories developed around economies of scale and mass production that relate not only to technology but to economies of marketing and distribution as well. The sharp decline in self-employment in agriculture, where there has traditionally been a high concentration of family farms and sole operators, exhibits the influence of mechanisation and the consequent amalgamation of smaller units and growth of company-run enterprises.

There is now some suggestion that this trend has worked itself through. The levelling out and slight increase in the proportion of self-employed in the non-agricultural sectors noted here, has been more marked in Britain. Bollard¹⁶, in his study of the economies of small-scale enterprises there, notes several contributing factors, including consumer demand for product variety, diseconomies of some

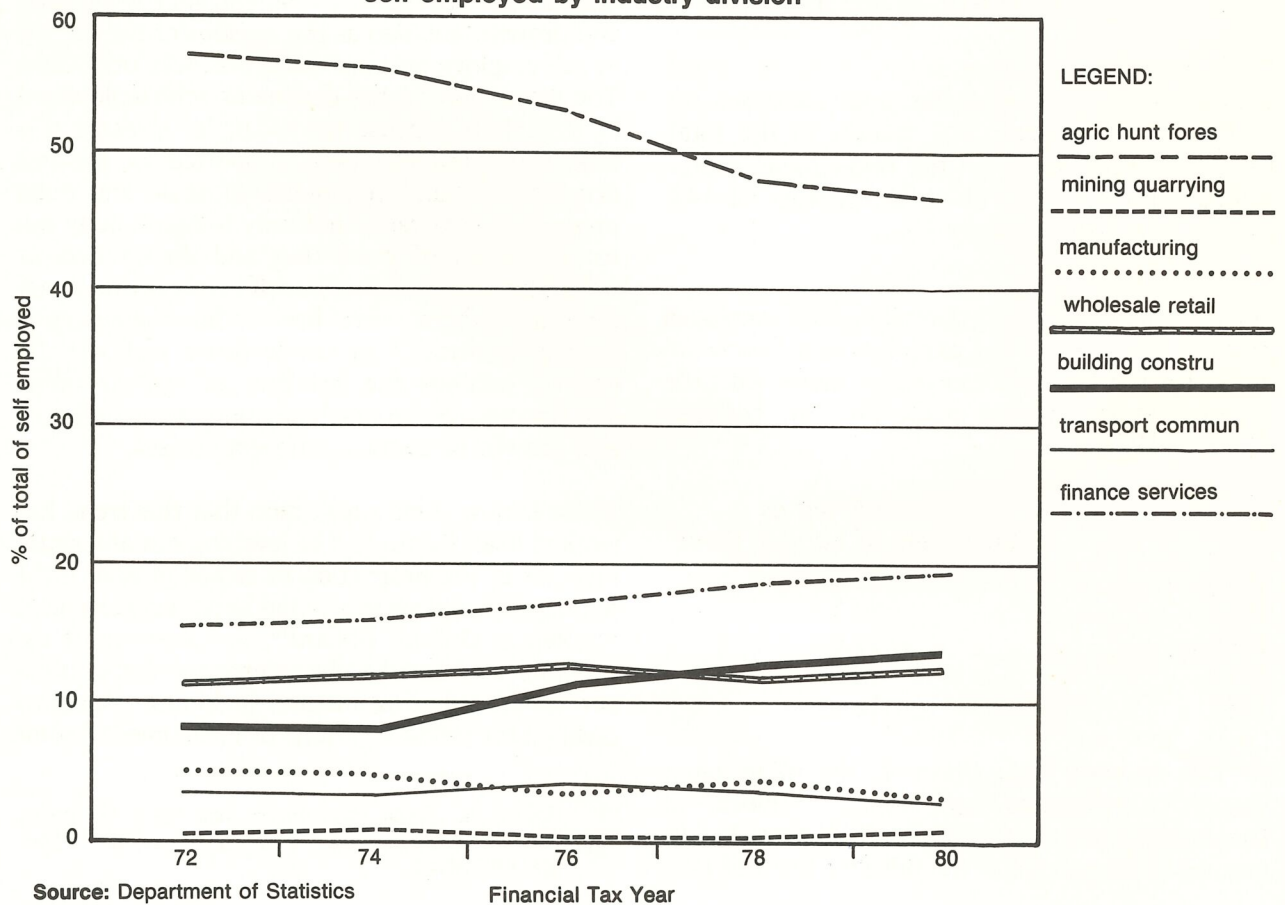
16 Bollard, A., *Small Beginnings: New Roles for British Businesses*, Intermediate Technology Productions, London, 1983

CHART 4 **Employment**
% of self employed of total workforce



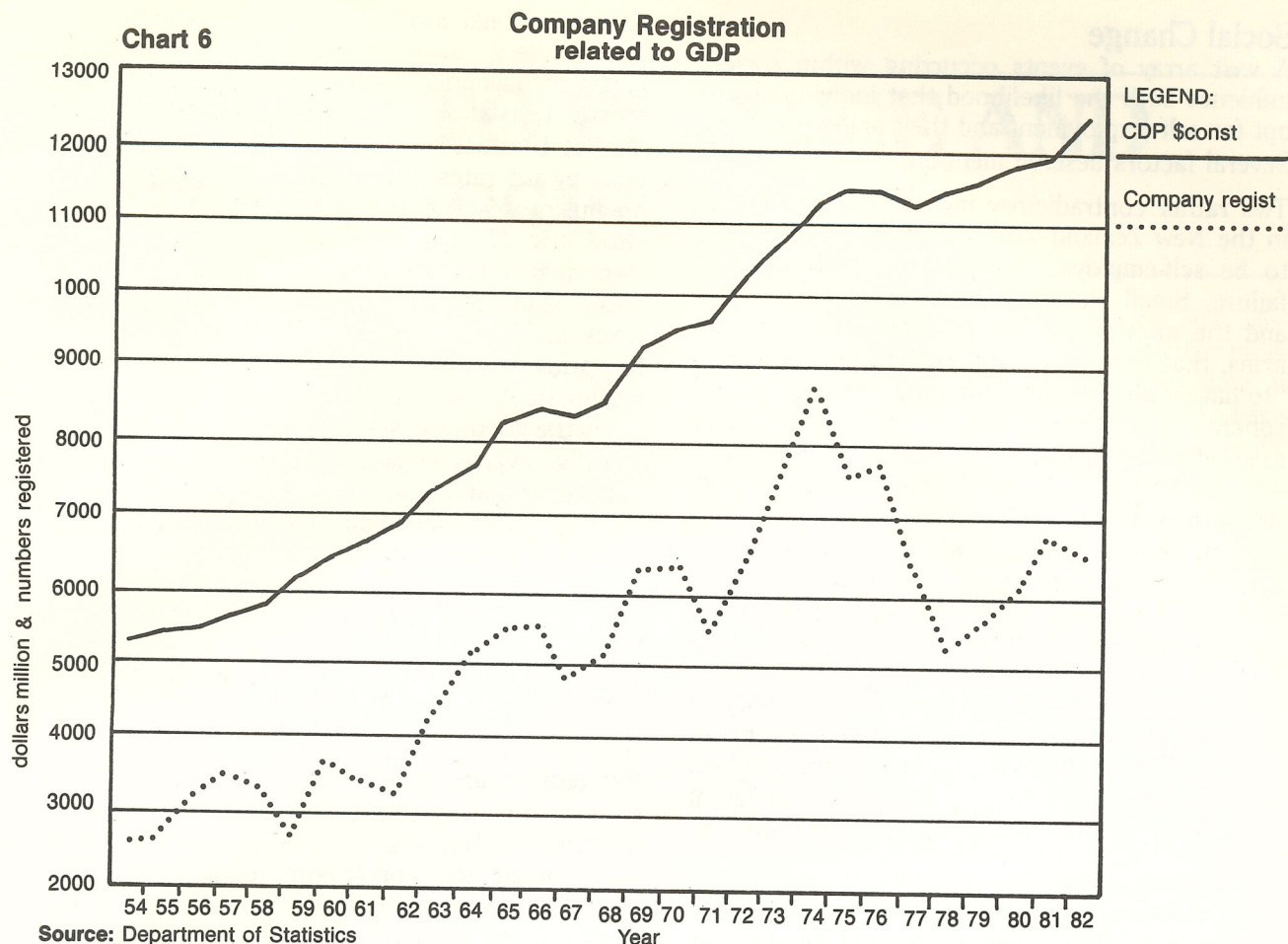
Source: Department of Statistics

CHART 5 **Employment**
self employed by industry division



Source: Department of Statistics

Financial Tax Year



large-scale production, the reaction against the vulnerability of "one-product" towns and the development of new technologies, which make small-scale competitiveness possible.

Economic Conditions

Clearly the fortunes of small firms are influenced by the course of the economy as a whole. They are affected by adversity and their growth is encouraged in periods of prosperity. The interesting policy questions arise, however, around judgements on whether small firms have a capacity for a more flexible response than do large firms and thus might play a more than proportionate role in difficult times like the present.

Company registrations enable some assessment of the relationship between overall economic conditions and entrepreneurial activity. The trend of new company registrations (Chart 6) is broadly the same as that of GDP but is subject to much more marked cyclical fluctuations. This suggests that new start-ups could usefully be seen as comprising two elements:

- a base load of registrations related to the absolute size of GDP. A large part of this would reflect normal life-cycle phenomena in a sector characterised by high attrition (effectively replacement starts). Another part

would constitute net expansion in line with total activity.

- a volatile expectational element related to the overall rate of change in economic activity. Thus we would expect registrations to surge in periods of boom and to fall when times are depressed.

The evidence of company registrations is suggestive of a cyclical rather than a counter-cyclical pattern of new business starts. Thus we can note, for example, that in the seven years to 1975, the GDP growth rate was 3.5 percent per annum and new company registrations averaged 7,000. In the ensuing seven years, the GDP growth rate fell to 1.2 percent per annum and new company registrations to an average of 6,000.

It has also been argued that self-employment can run contrary to economic conditions and increase in times of unemployment simply because individuals are forced to create their own livelihood. At the same time, the pressures on existing enterprises to rationalise their activities and shed their marginally profitable concerns by closing them down or contracting them out as well as the increase in firm closures in depressed conditions, create a number of gaps in production which provide opportunities for small firms and would-be entrepreneurs.

Social Change

A vast array of events occurring within society influence both the likelihood that individuals will opt for self-employment and their ability to do so. Several factors deserve mention.

Two rather contradictory mythologies are strong in the New Zealand workforce. One is the desire to be self-employed. Despite the high risks of failure, Small Business Agency personnel note, and the number of new business start-ups confirms, that there is no shortage of people willing "to have a go". At the same time, there is forceful adherence to the notion of permanent wage or salaried employment. This attachment to permanent, full-time, paid work has understandably strengthened as unemployment continues to rise and attests to the benefits which accrue to people who obtain their livelihood in this way. Without knowing something about the motives of people who become self-employed and whether they reject the notion of permanent employment, have never worried about it, or have no possibility of obtaining the kind of permanent employment they want, it is impossible to judge the extent to which we are dealing with distinct groups with different aspirations of whether one desire outweighs the other.

The challenges thrown at post-war industrial society in the 1970s also stimulated the development of diverse lifestyles. A significant number of lifestyles which began at that time still remain. The notion of working cooperatively also gained strength from many of the changes commencing in the 1970s, particularly amongst disadvantaged groups or those wishing or needing to work more flexible hours. The stimulus for many of these came from finance available from public schemes. For women, cooperatives have become a vehicle for working by feminist principles; for Maori people, the concurrent renaissance of their culture and confidence in their tradition of cooperation, has resulted in a steady increase in marae-based work cooperatives.

Changes in consumer preferences have enabled many of these new groups of self-employed to flourish. The rejection of processed and uniform food, entertainment, clothes and crockery has enabled the survival of organic food cooperatives, small theatre groups and craft markets.

Regulations and Controls

The range of regulations and controls is immense. The state is an important actor, both as a producer in state-owned enterprises, a law-maker and enforcer, a tax leveller and revenue spender, all of which, directly or indirectly, affect business activity¹⁷. The regulations, controls and other government policies which affect our trading partners also have implications for the New Zealand scene.

At the national level, the degree of openness of markets (e.g. to import competition), arrangements such as price discrimination, collective price-fixing, legislation which places constraints on market transactions (barriers to entry, licensing etc.), award rates and other union policy impact on businesses and the "competitiveness" of the small firm. On a day-to-day basis, central government legislation affecting businesses include licences, standards (employment, health and so on), taxes and incentives. For the small firms, even the administrative costs of complying with tax requirements such as PAYE (and now prospectively the goods and services tax) can be onerous. Locally, bylaws concerning building and health regulations and planning ordinances governing zoning, traffic management and development are enforced by local authorities.

Employers and workers have also generated a variety of regulations and controls covering wages, standards of product or service, entry into the industry and access to training.

Regulations and controls have particular effects on new business activity. At a very basic level, the use of a house as a workplace by a fledging firm, unable to support the rental of separate premises, could contravene regulations covering health, noise, fire or zoning. Regulations restricting entry are also pertinent to new firms.

Even accepting that the overall cost-effectiveness of the current mix of regulations and controls lies beyond the scope of the paper, we are not even in a position to say whether their cost impacts disproportionately on small firms. However, specific policies can have this effect. The system of import licensing, now being phased out, which effectively guaranteed a secure business and monopolistic positions in the selling of imports for those fortunate enough to have the licences, worked against small, new firms. Similarly, recent controls on the fishing industry to prevent over fishing have hit small businesses particularly hard. It has also been suggested that even when not overlooked, many small firms are disadvantaged by a pre-judgement that "small is inefficient".

On the other hand, there are a range of regulations which appear to favour small businesses. For example, not only must pharmacists operate chemist shops, but they are unable to own more than one such enterprise. Entry to a range of occupations is conditioned by licensing requirements.

17 The Economic Monitoring Group of the NZ Planning Council discusses the issue of regulations in a forthcoming report.

ACCESS TO FINANCE AND OTHER ASSISTANCE

Difficulties Faced by Small Firms

When businesses are first established, the equity capital put in by the proprietor is likely to be the most important source of funds¹⁸. Lal's 1975 survey¹⁹ of the Palmerston North area indicated that 36 percent financed all their initial capital requirements from this source.

Trading bank loan was the next most utilised source. Family sources and credit from suppliers assumed some importance. Mortgage and building society loans provided some initial finance but little use was made of insurance companies and other financial institutions. The personal assets of the proprietor represent an important element in the security offered for a loan.

It is during the first few years after establishment that a growing small firm is likely to have the greatest need for external finance, and the most difficulty in obtaining it. Lending institutions are reluctant to provide debt finance to a small firm with limited collateral which can point to only a brief period of successful operation. The cost of assessing and processing loans can also disadvantage those seeking relatively small amounts of finance.

Small firms may lack information about sources of funds, the skill and experience to prepare submissions for finance, or may fail to persevere when a first application is rejected. Some small firms are unsuccessful in raising finance because the directors are not prepared to give personal guarantees or use their personal assets as collateral. Finally, of course, there are those small business proprietors who are unwilling to accept outside equity capital, or who are prejudiced against entering into debt commitments.

Private Sector Finance and Assistance

Private sector financial institutions do not, in general, regard size of firms as an important lending

or investment criterion. For reasons just discussed, small, new firms may have particular problems in obtaining loans, however no data is collected on the proportion of loans going to firms of different sizes. The lending and investment policies of private financial institutions are outlined briefly.

Trading Banks

Trading banks prefer land and buildings as security. This often leads small business proprietors to mortgage their private residences to obtain a loan for the firm.

Since banks place considerable emphasis on security, bank finance may not always be allocated to those small business projects offering the highest prospective rates of return. Small businesses are further disadvantaged by the disproportionately high administrative costs on small loans. Although trading bank finance is widely used by small firms for long-term purposes, the trading banks are not equipped to play a major role as suppliers of development finance. Small firms that have excellent prospects for success but little collateral, are best handled on an individual basis by specialist financial institutions capable of assessing the risks involved, providing technical and managerial advice where appropriate, and supplying a suitable mix of equity and loan capital.

Non-Banks

Finance companies (non-banks) invest in a wide range of short and medium-term loans for personal, commercial and industrial purposes. These loans are frequently on a hire purchase or term loan basis, involving periodic repayments of principal and interest over the term of the loan.

Financial services provided by stock and station agents to the farming sector, particularly the sheep farming industry, include the operation of current accounts, provision of fixed term deposits at interest, and the making of secured and unsecured loans.

There has recently been growth in the number of private companies interested in financing new ventures with significant capital requirements. By its nature, much of this investment is high risk so that operators in the venture capital market will be concerned to ensure that a high proportion of

18 Bird, R.G. and Juttner, D.J.P., *The Financing of Small Business in the Manufacturing Sector*, Macquarie University, School of Economic and Social Studies, Research Paper No. 69

19 Lal, M., *Financing Small Business: A Research Report*, Department of Business Studies Faculty of Business, Massey University, Occasional Paper No. 23, 1977

ventures pay off. It is an open question whether growth in this area is constrained more by the range of projects available than by the availability of capital, but the area is of such importance as to warrant further research.

Insurance Companies and Other Savings Institutions

Small business proprietors are major investors in the enterprises they own. For the public at large, however, there is virtually no opportunity or incentive to invest in small enterprises. Even the major financial intermediaries that mobilise private savings — the life insurance companies, superannuation funds and savings banks — commit a negligible proportion of their investible funds to the small business sector.

The primary function of insurance companies is to provide security and earnings for their policy holders and this responsibility is reflected in their investment policies. This, coupled with the main investment objective of maximising the rate of return of its life fund, is reflected in the range of investments held by insurance companies.

Though life insurance companies play an important part in mobilising savings, only a minute part of their funds is used to provide finance for small firms.

SCORE and CELT

Two non-profit organisations also provide assistance or loans to small businesses. The Service Corps of Retired Executives (SCORE) operates through the Chamber of Commerce, advising small businesses on their needs for viable operation, sources of funds and so on. They operate on a non-profit basis, with selective charging policies, and are often employed by government departments, particularly the Department of Maori Affairs, to prepare profiles on firms applying for assistance.

The Cooperative Enterprise Loan Trust (CELT) provides both advice and loans to small cooperative or non-profit enterprises. They accept deposits into their banking facility which are then made available as loans. They often work closely with cooperatives in the start-up phase and have on going programmes of support and education.

Both these organisations are small, although nation-wide. Their voluntary basis and limited scope for generating income restricts their ability to provide assistance.

Public Sector Finance and Assistance

Several public sector schemes and agencies with a variety of objectives, provide assistance to industry. Support for industrial development in-

cludes schemes to assist specific "desirable" industries, to attract industries to certain areas, to assist small businesses and to stimulate employment creation or training.

Business advice is available from a range of advisory units within government which offer services to the various sectors. The Small Business Agency of the Development Finance Corporation is involved specifically in assisting small businesses. It provides a limited amount of free counselling and support to any small business as well as running training and management courses and publishing material geared to meet the needs of small operators. The Otago Business Development Centre, which is partially funded by government, also carries out a large proportion of its work for small businesses.

Financial assistance to industry is provided by government through the tax system and through an array of schemes which offer loans (which may be suspensory or at subsidised rates), and occasionally grants to qualifying businesses.

Tax rebates and exemptions are an important form of assistance to industry, and for the most part do not specify firm size as part of the qualifying criteria. The key exception to this is the Export Programme Suspensory Loan Scheme, which provides suspensory loans for market development to firms that have previously had export sales of \$250,000 per annum. Firms of any size qualify for alternative assistance through export market development tax incentives.

Personal tax concessions also affect small businesses. There are tax concessions available to those who are saving to buy a farm, and until recently fishing vessels, but not for any other form of small business investment. Tax rebates given to individuals who take out life insurance policies favour a type of saving that channels resources into institutions which tend to opt for very secure investments and rarely make loans to the small business sector.

The Rural Banking and Finance Corporation is another source of assistance for agricultural activity. It does not channel its funds specifically to small concerns but some of its programmes, such as share-milker assistance, achieve this end. It lends for farm settlement, farm development, share-milker assistance, refinancing of existing debt and seasonal assistance, as well as providing funds under climatic relief schemes. In addition, the corporation provides finance to the fishing industry, rural industries and agricultural contractors.

The Development Finance Corporation, operating in consultation with other agencies including the

Small Business Agency, and the Departments of Trade and Industry, and Labour, is the main vehicle for public sector assistance in the form of loans and loan guarantees. Its Act specifically charges the DFC with the responsibility of giving "particular attention to the needs of small and medium-sized businesses".

Important schemes are:

The Loan Guarantee Scheme (administered by the Small Business Agency) — guarantees the repayment of bank loans of up to \$200,000 (and generally more than \$5000) for small firms in specific industries (manufacturing, processing, tourism and technology development).

Venture Capital Fund — the Development Finance Corporation can provide equity to businesses with high growth potential, thereby providing an improved capital base. Share holdings can be up to 49 percent of business.

Small Enterprise Suspensory Loans (administered for Trade and Industry by DFC) — interest-free loans of up to \$20,000 or 50 percent of the value of buildings, plant or equipment being purchased are available to small businesses in designated regional development areas. Where specified conditions are met, the loan converts to a grant after five years.

*Private Sector Employment Incentives Scheme*²⁰ (for the Department of Labour) small businesses and other employers are eligible to receive a weekly wage subsidy of \$75.00 for every new permanent job created.

In the year to March 1984, DFC approved loans assistance totalling \$101.3 million through its Small Business Development Division. A further \$5.3 million was approved for investment in 80 projects through the Small Business Venture Capital Fund (DFC now continuing the service through another scheme) and \$52.2 million to support 16,000 jobs under the Department of Labour's Job Creation Suspensory Loan Scheme for small businesses.

Several programmes offer grants to groups setting up businesses or creating employment opportunities.

The Small Cooperative Enterprises Scheme (SCOPE) of the Department of Internal Affairs provides assistance and grants to groups of unemployed who want to develop small scale cooperative business ventures.

The Department of Labour's Community Employ-

ment Initiatives Fund (CEIF) provides grants to community groups working to develop employment opportunities. Grants have been given to small businesses (all of which have been trusts, cooperatives or incorporated societies) as well as groups working to assist the unemployed through generating work opportunities.

The Department of Maori Affairs provides assistance through the Maori Trustee to cooperative or marae-based business initiatives, and loans to land-based cooperatives are available from the Board of Maori Affairs.

Some other schemes, such as Arts Council grants and the Department of Internal Affairs Youth Initiatives Fund, also enable certain people, including many involved in cultural activity, to establish themselves as self-employed.

There are a range of other programmes, generally operated by the Department of Labour, and available to firms regardless of size to encourage businesses to become more involved in training or retraining and no information is available on the extent of pick up of these schemes by small firms. With the exception of schemes offering assistance to employers with apprentices (e.g. subsidies to allow attendance at block courses and taking on woman apprentices), few are well taken up by the private sector, suggesting that they are more opportunities to perform "good works" than viable incentives. Some of these programmes such as the Young Persons Training Programme (YPTP) and the School Leavers Training and Employment Preparation Programme (STEPS) are available to the private, public and non-profit sectors and are most often picked up in the latter sectors. The Maori Trade Training Scheme (Department of Maori Affairs) attaches its subsidy to the trainee during training rather than the eventual employing agency.

In the area of training, it is pertinent to note that most of the self-employed who offer professional services, doctors, lawyers and so on, have their acquisition of "human" capital heavily subsidised by the state education system. This is true, to a lesser extent, of other groups such as the building trades.

While the assortment of schemes that assist the self-employed and small firms have a range of objectives and can in no way be considered part of an integrated approach to small firm support, there are nevertheless some principles which are being adhered to, either consciously or unconsciously.

1. All small firms can get some counselling support or advice from the public sector.

20 Formerly the Job Creation Suspensory Loan Scheme

2. No financial assistance is given to a small firm, merely because they are small. They must meet some other objective — either employment creation or the development of a business in a designated regional development area or industrial sector.
3. Assistance is generally available to firms that are already established or with a sound financial base. The Small Business Agency does not favour giving loan guarantees for amounts of less than \$5,000, for example.
4. Unemployed people wishing to start their own business without much or any financial resource qualify for assistance only if they are part of a group.

THE CONTRIBUTION OF SMALL FIRMS

The preceding sections have demonstrated the importance of small firms as employers in the New Zealand economy, and their particularly strong role in some industrial sectors. It is also evident that this is a very dynamic sector of the economy with large numbers of start-ups and closures, and one which is particularly vulnerable to external impacts such as the availability of finance or the appearance of a competitor.

Many claims have been made concerning the strategic role of small businesses in the economy. Particularly important is their role in job creation as well as their ability to be innovative, adaptive and preserve efficiency through competition.

Job Generation

In recent years, much attention has been paid to the role of small businesses in job generation. Two, seemingly contrary, perceptions are evident. First, in some sectors, particularly manufacturing and finance, employment is strongly concentrated in larger firms and on most accounts, increasingly so. Secondly, it is widely argued that small firms contribute by far the greater part of net additions to total employment.

A tendency towards concentration of employment is evident in post-war data for New Zealand manufacturing, as can be seen from Table 4. Between 1949/50 and 1978/79, the proportion of the manufacturing workforce engaged in establishments of 20 or fewer persons fell from 31 to 19 percent whilst the proportion of persons in establishments of over 100 rose from 30 to 50 percent.

In a British study, Prais ²¹ reported the long-term growth of the share of the hundred largest enterprises (measured in terms of employment) in the net output of British manufacturing industry from some 16 percent in 1909 to 41 percent in 1970. Prais suggested that this measure probably understated the degree of concentration by leaving out of account the growing links between manufacturing and other sectors of the economy. Placing his findings in a wider historic context and on the basis of a simple statistical model of growth processes, Prais sketches the growth of concentration from the introduction of generally available limited liability for companies in the 1850s to the present, which is witnessing "an unprecedented rate of increase in concentration, to which no limit can be seen at present". Similar perceptions are widely held about the growth of concentration in the United States and, indeed, internationally through transnational corporations.

At the same time much attention has been paid, particularly in the United States, to the role of small business in job generation. In the classic US study, Birch ²² estimated that two-thirds of net new jobs created in the period from 1969-76 were accounted for by net employment gains in establishments employing 20 people or fewer. In New Zealand²³ Lawrence has used special tabulations of manufacturing census data to estimate the relative importance of large and small firms as employment generators in the chemical and furniture industries. His figures suggest that in the period from 1974/75 to 1978/79, small firms accounted for 92 percent of the net job gain in

Table 4

NEW ZEALAND MANUFACTURING INDUSTRIES Proportion Of Workforce in Factories According To Size

<i>Factories with persons engaged numbering</i>	<i>1949/50</i>	<i>1959/60</i>	<i>1969/70</i>	<i>1981/82</i>
20 or under	31.2	29.5	24.3	18.6
21-100	38.6	32.4	32.7	31.0
Over 100	30.2	38.1	42.9	50.4

Source: *Census of Manufacturing*, Department of Statistics

21 Prais, S.J., *The Evolution of Giant Firms in Britain*, Cambridge University Press for N.I.E.S.R., 1976

22 Birch, L., *The Job Generation Process*, Program on Neigh-

bourhood and Regional Change, Massachusetts Institute of Technology, 1979

23 Lawrence, S.R., op.cit.

Table 5
UNITED STATES EMPLOYMENT IN MANUFACTURING ESTABLISHMENTS (000)

<i>Establishment Size</i>	<i>Persons</i>			<i>Total</i>
	<i>Fewer than 20</i>	<i>20-99</i>	<i>More than 100</i>	
1954	1,196	2,835	11,615	15,646
change	-154	441	2,558	2,846
1967	1,042	3,276	14,173	18,492
change	164	214	-353	23
1977	1,206	3,490	13,820	18,515
Percent distribution in 1977	6.5	18.8	74.6	100.0

Source: Table 1387 Statistical Abstract of the United States 1982-83, and earlier issues.

chemical industries. In furniture-making, a net decline in employment in larger firms meant that the net increase in employment in small firms was actually larger than for the industry as a whole.

Micro-studies such as those of Birch and Lawrence have provided some important insights into economic behaviour. In particular they emphasize the volatile nature of entrepreneurial activity. Before reviewing these findings it is important to log two caveats. First, the methodology and data bases for studies of this type are still under development, and variations between studies suggest that we are still in a settling down period in interpretation of the results. Second, the general practice to date of focusing reportage on the percentage ratio of net job creation in small firms to net job creation in industry as a whole, raises some problems of interpretation, particularly if there is net job loss in the industry. In any event, the ratio is arguably biased upwards²⁴.

Probably the most striking feature of recent micro-studies is the volatility of business enterprise. Lawrence's study of two New Zealand industrial groupings, showed that of the 611 establishments in the chemical industry in 1975, 171 had closed

by 1979, whilst another 342 had opened. Only 56 percent of the 1979 establishments existed in 1975. In employment terms, the change was much less dramatic and these same surviving 1975 establishments accounted for 85 percent of 1979 employment. Of the surviving enterprises, 216 expanded and 179 contracted.

Job loss results both from closures and from contraction of surviving units. US studies²⁵ show significant annual levels of job loss and suggest that differences in net employment growth are largely the result of differences in the rates at which job losses are replaced. Rates of job loss are nearly the same in all areas but replacement and new job generation rates vary markedly across the country.

Net job generation has also varied markedly between sectors in the United States. During the 1970s, manufacturing employment increased only slowly whilst trade and private service sectors increased dramatically. More generally employment tended to increase more rapidly in those industries in which the average size of establishment was smaller. Over this period private sector employment in trade, finance, private services and

24 The "Birch ratio" is defined as
net employment increase in small firms
net employment increase in all firms

Clearly the denominator need not necessarily be larger than the numerator. Neither is the numerator or the denominator necessarily positive. In particular the denominator will be negative if the industry is declining and may be zero. In consequence the ratio can range between infinite negative and infinite positive values rather than between zero and one hundred as seems frequently to be implied. Furthermore the general practice of defining as small those firms which were small at the beginning of the period biases the increase upwards. If we adopt some kind of a life-cycle view of new firms being born, growing in size, maturing and declining, with an ever-present chance of death then we would expect the younger, and smaller, firms to show net employment growth.

The problems of interpreting and relying on a single ratio can be illustrated with reference to a hypothetical industry

comprised of two self-employed persons one of whom has an apprentice. The industry thus employs three people, one in a "small" firm and two in a large firm. Assume our apprentice changes masters. An over-eager research worker using the ratio above would conclude that small firms had contributed a net employment increase of one as compared with an industry-wide change of zero. Birch's ratio would rise to infinity.

Needless to say this example overstates the problem. The ratio is clearly an interesting one — the caution really needs to be to the effect that we should not lean too heavily on the ratio until we have had sufficient studies to calibrate its base level and to relate it to cyclical changes in the economy.

25 Greene, R., *Tracking Job Growth in Private Industry*, *Monthly Labour Review*, U.S. Department of Labour, September 1982

Table 6
NEW ZEALAND EMPLOYMENT IN MANUFACTURING ESTABLISHMENTS

<i>Establishment Size</i>	<i>Persons</i>			<i>Total</i>
	<i>Fewer than 20</i>	<i>21-100</i>	<i>More than 100</i>	
1974/75	45,309	87,670	148,238	- 281,217
change	5,988	1,262	-3,712	3,538
1978/79	51,297	88,932	144,526	284,755
change	1,056	-1,568	-2,334	-2,846
1981/82	52,353	87,364	142,192	281,909
Percent distribution in 1981/82	18.6	31.0	50.4	100.0

Source: Census of Manufacturing

construction industries accounted for 88 percent of the total increase in non-agricultural employment.

A size analysis of US manufacturing employment shows some significant changes in the post-war period (Table 5). In the period between the 1954 and 1967 censuses of manufacturing, employment grew in the sector as a whole, with growth being concentrated in the largest units. Between 1967 and 1977, manufacturing employment was stagnant, with growth in smaller scale factories being offset by declines in larger units. However, at the end of the period, three-quarters of manufacturing employment was still found in establishments having more than 100 employees.

The most recently available data for New Zealand manufacturing also show a pattern of expansion in smaller sized factories being largely offset by declines in large units (Table 6).

The original US study by Birch was based on a longitudinal analysis of individual establishment data maintained (for some five million establishments) by Dun and Bradstreet, a credit rating firm, over the period 1969-76. More recently Armington and Odle have used the same data source to analyse developments in the period from 1978-80 and to examine more fully the implications of the fact that many establishments are branches or subsidiaries of large firms.

Establishment size is often used as a proxy for firm size because it is more frequently available and is the same for many businesses. Indeed, 91 percent of businesses with employees have only a single location²⁶, so their firm size and establishment size are the same. However, the other 9

percent that are multi-location firms employ 62 percent of the private sector workforce and consequently have a substantial impact on aggregate measures²⁷.

Working on a firms rather than an establishments basis, Armington and Odle concluded that in the period 1978-80, firms with fewer than 100 employees employed 36 percent of the labour force and generated 39 percent of net new jobs. They went on to note that in 1978-80 expansion of existing businesses created nearly twice the number of jobs as start-ups of new businesses. Noting other studies, showing that the majority of new business establishments did not survive four years, they suggested that "these two factors" raise doubts about the political effectiveness of development policies focusing on attracting new business establishments and preventing business failures. Finally, Teitz²⁸ has analysed mandatory unemployment insurance records for 25,000 employers in California over the period 1975-79. Like Birch, he found that establishments with fewer than 20 employees accounted for the major part of net employment gains (56 percent). He found, however, that most of the new employment growth was concentrated in a small percentage of these firms. Again, like Birch, he found that young firms (in his study firms less than two years old) accounted for a much greater share of net employment growth than did older firms, and that the great majority of new jobs were in non-manufacturing industries.

Although there is considerable scope for argument about the details of the case, there is no doubt that small firms play an important part in the overall process of job generation. That re-

26 The comparable figure in New Zealand is 94 percent, and 88 percent of all enterprises are not part of a group (Communication from Department of Statistics)

27 Armington, C. and Odle, M., "Small Business — How Many Jobs", *The Brookings Review*, Winter 1982, p. 14

28 Teitz, Michael B. "Small Business and Employment Growth in California: 1981, quoted in Greene above

mains true even if their contribution to net employment growth is no more than proportional to their current provision of employment. Most of the longitudinal micro-studies to date suggest that their role is more important than that and indeed there are obvious reasons why this might be so. The small business sector is comprised of a multiplicity of units. Most are small because they are active in areas, particularly those in agriculture and service industries, where small scale is the natural mode. By and large, a proportionate increase in employment could be expected in these areas. In addition, some small businesses are small only because that is a stage in growing bigger. Small business does, in a proportion of cases, prove to be the seed bed from which larger undertakings grow. Taken together, the considerations suggest that normal life-cycle characteristics of firms mean that smaller firms will normally make a more than proportionate contribution to net job creation in the period ahead. In addition, as we have seen, they also play a basic role in replacing job losses arising from the normal attrition of firm declines and closures.

Innovation, Adaptability and Competitiveness

The contribution of the small firm sector to economic efficiency centres on a continuing supply of new firm start-ups and the somewhat elusive, but critical, skills of entrepreneurship — the development of new ideas and products, the identification and filling of gaps in the market and the shifting of production into profitable areas. While large firms also exhibit some of this behaviour, they are generally strongly committed to a particular line of production, employing a workforce with skills appropriate to existing products and can be expected to be less flexible in the market than a small entrepreneur looking out for opportunities to expand or to set up a business.

With regard to product innovation, there are some suggestions that although most innovation comes from large firms, small firm expenditure on research and development is more efficient. OECD statistics suggest that nearly half of industrial research and development expenditure is accounted for by 40 large firms. A survey in the United States estimated that small and medium-sized firms (fewer than 1,000 employees) were responsible for more than 40 percent of the major innovations there in the 1970s and that they produced four times as many innovations per employee in research and development than did larger

firms²⁹. Another study in the United States downplayed this apparently important role of small and medium-sized firms by analysing the innovations, and concluding that the major ones were products of firms with more than 10,000 employees and that the role of small firms in innovation is dwindling³⁰. More recently, an OECD study stresses the essential role of small firms in innovation, particularly in the diffusion of new processes and products, and a need for greater support to small and medium-sized firms to reach their potential³¹.

The location of innovation in New Zealand has not been analysed, however the importance of larger firms in innovation is likely to be less dramatic since there are so few by international standards, and a major part of the research and development undertaken occurs in the public sector. New Zealand manufacturing statistics for 1981/82 show that research expenditure per \$ of final sales rises from 1 cent in firms employing fewer than 10 people to 3 cents in firms employing 50 or more persons. It is obvious that in some sectors, particularly, for example agriculture, small businesses have played an important innovative role.

The adaptability of the small firm sector stems from the high turnover of firms and ideas which ensures a process of change enabling the pick-up of gaps in the market and risk-taking with new products and services. The fact that most large corporations began as small enterprises, highlights the seed bed role of this adaptive process. Even though large firms also move into new product areas there is a case to be made that it is the identification of new product areas and the continual competitive pressure emerging from the small firm sector which ensures the adaptability of larger firms.

This raises the question of impact on the economy of decreased competition as a result of industrial concentration. In his British study, Prais³² noted that firms tended to grow through amalgamation rather than by increasing the scale of production. Economies of scale were found to be less important than other factors, such as the availability of finance in the growth of firms. Moreover, he noted that Britain, with more industrial concentration and only one-fifth as much production undertaken by small firms as in France and Germany, had a slower rate of economic growth, and argued a link between the proliferation of small firms and economic efficiency. Unfortunately, there has been

29 *Innovation in Small and Medium Firms*, OECD Paris, 1982

30 *Ibid.*

31 US Office Management and Budget study cited in Chilton, K.W. and Hatfield, D.P., "The Entrepreneurial Role of Small Business", *Economic Impact*, No. 38, 1982

32 Prais, S.J., *op.cit.*

very little other testing of this observation. While there is an extensive literature on the economics of imperfect or monopolistic competition, there has been limited investigation into the actual di-

seconomies occurring due to industrial concentration or into the extent to which a small business sector operates as a check on monopolistic pricing and inefficient resource allocation.

CONCLUSION

Our discussion of the small business sector confirms its significant role in production and employment generation. In certain sectors, such as agriculture, retail trade and many services, it is the most important production mode.

As part of the business world, it is similarly exposed to cyclical and other changes in economic conditions and is affected by them in much the same way as are larger firms. However, to the extent that small new firms have fewer assets and less security, and hence are naturally disadvantaged in the raising of finance to meet contingencies, they may be more vulnerable in the face of adverse conditions.

Over recent years, in the United States and elsewhere, a strong case has been built around the job generation potential of small firms. The case is sometimes over-stated. New firm start-ups and growth within existing firms are the two sources of new jobs within the private sector. Looking at this alongside life-cycle effects, where most new firms are small and the "death" of a small firm causes less job loss than the death of an older and larger one, it can be expected that small firms will tend to contribute proportionally more to net employment growth than large firms. Changes in the structure of developed economies may have accentuated this image of employment growth in small firms, with the post-war growth of employment in large-scale manufacturing units giving way to growth in smaller firms in the service sector.

American research³³ has suggested that the attrition rate of businesses is such that new jobs equal to approximately 8 percent of the total number of existing jobs need to be created each year to maintain employment levels. Whatever the comparable figure in New Zealand might be, it is clear that continued job generation depends both upon new start-ups and the growth of existing firms.

There is, consequently, a need for continued policy attention to the factors which condition the drive to create new business centres. Economic stability and growth depend upon, among other things, the striving of a steady stream of persons whose personal characteristics and circumstances motivate and enable them to set out on their own

in business. We will not try and define those personal characteristics here, although it is certainly relevant for policy-workers to reflect on them, and on the extent to which they are shaped by official and community attitudes in, for example, regulatory, educational and other institutions.

More immediately, there are a number of factors which need to be kept in mind by those policy-makers whose actions condition, even if, in some instances, only by default, the environment for those who decide to set up on their own, in partnership, or as members of a cooperative. The more important areas for monitoring are:

- the availability of appropriate advice
- access to opportunities for specialised training
- access to capital
- ensuring that regulatory requirements are limited to those having a demonstrable net benefit
- the overall equity, simplicity and efficiency of the tax system.

In each of these areas the requirements of small businesses are in many respects not essentially different from those of their larger competitors, and, in such cases, will be similarly affected by public policies. On the other hand, there is a clear case, if not for positive discrimination, at least for special care in considering the needs of small enterprises and checking the terms of particular policies. There needs to be a positive pressure in the system which ensures that the needs of small businesses are adequately considered in the formation and administration of policy. On occasion, such consideration is likely to identify particular needs which justify the targeting of particular measures towards small businesses. The actual balance of policy has to be determined pragmatically, the only imperative is to ensure that the need for such action is regularly considered. Policy decisions also need to be informed by an awareness of life-cycle phenomena as they affect firms.

While new firm start-ups are obviously an important area for public monitoring and on occasion for assistance, the conclusions drawn from the discussion of job generation also suggest that the major contribution to employment generation

33 Greene, R., op.cit.

comes from the growth of a small proportion of existing, and predominantly small, firms. A key requirement at that point is the ability to expand the capital base of the enterprise either by plough-

back of profits or by drawing in venture capital by broadening the ownership and equity base. We judge this to be an important area for further research and policy analysis.

Appendix I

DATA FROM DEPARTMENT OF STATISTICS BUSINESS DIRECTORY

No. of persons engaged by NZSIC Major Group & Persons engaged

NZSIC MAJOR GROUP	0	1	2	3	4-5	PERSONS ENGAGED						50-99	100-199	>199	TOTAL
						6-7	8-9	10-19	20-49	50-99	100-199				
Agriculture, hunting etc.	0	4240	5800	3135	4004	2240	1218	4699	6218	2869	1733	4683	40839		
Mining and quarrying	0	102	172	204	324	347	210	718	812	478	1028	258	4653		
Manufacturing	0	2411	5424	5466	10042	13851	7187	27465	45542	41082	39386	96117	293973		
Electricity gas and water	0	42	92	90	109	186	116	846	1788	2546	1988	2447	10250		
Building and construction	0	4938	8604	8412	9649	5757	3832	9146	11619	7430	5404	14189	89980		
Wholesale, retail etc.	0	11064	26740	20412	30471	18495	12794	38064	46223	20877	11831	14017	250988		
Transport, storage, communication	0	4651	4364	2313	3569	2703	2262	6442	8515	5396	9549	58922	108616		
Finance, insurance etc.	0	4969	6576	4704	8564	6372	5520	18858	21101	9926	7915	10065	104570		
Community, social, personal services	0	8086	10908	11199	16020	10164	6744	24035	43408	29980	26262	95441	282247		
TOTAL	0	40503	68680	55935	82772	60115	39883	131273	185226	120584	105006	296139	1186116		

No of establishments by NZSIC Major Group & Persons engaged

NZSIC MAJOR GROUP	PERSONS ENGAGED											TOTAL	
	0	1	2	3	4-5	6-7	8-9	10-19	20-49	50-99	100-119		>119
Agriculture, hunting etc.	365	4240	2900	1045	920	354	146	369	216	45	13	10	10623
Mining and quarrying	116	102	86	68	74	54	25	57	28	7	7	1	625
Manufacturing	208	2411	2712	1822	2270	2181	852	2047	1529	603	299	220	17154
Electricity, gas and water	71	42	46	30	25	30	14	62	57	36	16	8	437
Building and construction	171	4938	4302	2804	2211	900	454	777	397	112	41	28	17135
Wholesale, retail etc.	2707	11064	13370	6804	6968	2899	1520	2921	1598	323	90	38	50302
Transport, storage, communication	340	4651	2182	771	808	420	268	487	291	80	67	89	10454
Finance, insurance etc.	3037	4969	3288	1568	1923	986	654	1419	722	149	61	18	18794
Community, social, personal services	1450	8086	5454	3733	3643	1587	802	1797	1487	438	197	152	28826
TOTAL	8465	40503	34340	18645	8892	9411	4735	9936	6325	1793	791	564	154350

Source: Communication from Department of Statistics.

Appendix II

THE SELF-EMPLOYED AS A PROPORTION OF THE LABOUR FORCE

	1926	1936	1945	1951	1956	1961	1966	1971	1976	1981
Total Full-Time Labour Force	545,592	644,448	735,384	740,496	816,852	895,363	1,026,039	1,118,835	1,272,333	1,332,342
Self-Employed with Employees	51,584	58,540	52,521	69,503	72,847	66,922	73,424	67,918	83,487	78,381
% of Labour Force	9.5	9.1	8.3	9.4	8.9	7.5	7.2	6.1	6.6	5.9
Self-Employed without Employees	69,931	73,696	61,233	78,918	80,095	67,907	69,831	72,286	91,511	93,132
% of Labour Force	12.8	11.4	9.6	10.7	9.8	7.6	6.8	6.5	7.2	7.0
All Self-Employed Persons	121,515	132,236	113,754	148,421	152,942	134,829	143,255	140,204	174,998	171,513
% of Labour Force	22.3	20.5	17.9	20.0	18.7	15.1	14.0	12.5	13.8	12.9

Source: Department of Statistics, Population Censuses



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