

Small Business Data Sources in Australia*

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Melbourne Institute Working Paper No. 5/97

March 1997

ISSN 1328-4991

ISBN 0 85833 172 1

*This paper is work in progress and is not to be cited without the authors' imprimatur. The paper is the result of work being undertaken under the banner of the IBIS Collaborative Program in Enterprise Dynamics, a research program bringing together the resources of the Melbourne Institute and IBIS Business Information Pty Ltd and funded by the Victorian Department of State Development and the ARC Collaborative Research Grants Program. In addition to the Program participants, the authors are indebted to Vera Ha for her contribution to an earlier draft of this paper. The information in the paper was current at the time of submission.

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1. Introduction

Over the past decade in Australia, small firms have been the focus of increasing research effort. Underlying this enhanced effort has been an increase in the contribution of small businesses to aggregate economic activity.¹ The Australian Bureau of Statistics estimates that small businesses presently account for about 97 per cent. of all private sector businesses, and about 51 per cent. of private sector employment in Australia.²

Certain characteristics of small businesses mean that they demand special research treatment. For example, small businesses are relatively more volatile, experiencing relatively high “birth” and “death” rates.³ Further, small businesses may face particular problems with regard to obtaining appropriate finance and management resources. It has also been widely said that small firms bear disproportionately the costs imposed by government regulations.

In Australia an important early study of the performance and difficulties of small businesses was completed by the Wiltshire Committee in 1971 for the Federal Government. Since the Wiltshire committee report, small enterprise research in Australia has grown rapidly. At times this research effort has been impeded by a dearth of small business data sources.⁴ Acknowledging the considerable scope for improvement in small business data sources, both governments and private firms have worked to increase the quantum of small business data available for researchers.⁵

The aim of this paper is to document extant quantitative small business data sources. The motivation is to provide a guide to small business researchers. The paper is part of a suite of projects which aim to study enterprise dynamics in Australia. The projects are coordinated under the banner of the IBIS Collaborative Research Centre. The Centre is a joint initiative of the Melbourne Institute of Applied Economic and Social Research, IBIS Business Information

1 This has occurred not only in Australia, but in most other industrialised countries as well: Johnson et al, 1994.

2 Australian Bureau of Statistics, cat. no. 1321.0 Small Business in Australia 1995 (May 1996).

3 Intuitively, there are at least two potential causes for this phenomenon. First, firms which are small in equilibrium may be more volatile, perhaps due to being more risky. Second, firms which are medium-sized or large in equilibrium may pass through small phases at the start and end of their lives. Firms tend to start small, and deaths frequently involve a gradual decline in size, so that previously medium-sized firms become “small” before “dying.”

4 The 1990 House of Representatives Standing Committee on Industry, Science and Technology stressed the dearth of small business data sources and pointed out the strong need for better research. Citing a severe lack of data on small business finance, the Committee recommended that the Reserve Bank or the ABS collect and publish statistics on bank lending to small business to address and analyse many of the problems faced by this sector (page 192).

5 The 1994-95 Commonwealth budget allocated \$7.25 million to the expansion of research into the growth and performance of small and medium sized firms (ABS, 1995).

and the Victorian Department of State Development, and has been funded by contributions from its members and by a grant from the Australian Research Council.

The paper is arranged as follows. Section 2 discusses definitions of small business. The development of small business research in Australia is then broadly outlined in Section 3. The main Australian small business data sources are described in Section 4 and in the subsequent Sections. Finally, Section 9 makes some concluding remarks.

2. Defining “small business”

In any work relating to small business, a first step is to define what is meant by “small.” A number of different quantitative variables may be used to classify firms by size. These include number of employees, sales revenue, total assets and net assets. Forsaith et al (1994) observed that with heterogeneous firms these variables are not interchangeable, so that a different basis for the definition of “small” will put firms in different size categories. Obviously, differences in factor proportions, for example, will mean that a size ranking of firms by total assets will differ to a ranking by employment, with firms that are relatively large and relatively capital intensive having relatively small labour forces. For such reasons, the choice of the basis for size definitions is important. Policy implications of research will be sensitive to the chosen basis.

Further, there may be cross-country differences in the applicability of particular size classification delimits. A “large” company in a country of a million people is very likely to be judged relatively small in Germany or the United States. In the latter country, manufacturing businesses with fewer than 250 employees are regarded as small; contrast this to the Australian Bureau of Statistics’ classification of manufacturing businesses as “small” if they have fewer than 100 employees.⁶ International differences in accounting standards may also be important if an accounting-based measure such as total assets is used as a basis for classification. Accordingly, definitions and research cannot necessarily be readily transplanted from one country to another. (For this reason it is important that Australian small business policy makers can draw on relevant and first-class *Australian* small business research.)

Underlying this discussion of variables used to classify firms is a concern that the chosen variables capture meaningfully the difference in “philosophy” between small, medium and large firms. The attributes that are emphasised in the literature as exemplifying a small business philosophy are independence, a degree of intimacy with customers and suppliers, close links

⁶ For more discussion see Meredith (1988) page 8.

between ownership and management and personal control of day-to-day operations. A business may be regarded as small if it has the following characteristics⁷:

- it is independently owned and operated;
- it is closely controlled by owner-managers, who contribute most if not all the operating capital; and
- the principal decision-making functions rest with the owner-managers.

A definition of “small” which has regard only to discrete numbers such as value of assets or number of employees will only approximately capture this philosophy. Whatever cut-off point is chosen, there will always be larger firms that are organised so as to have a “small business spirit,” and conversely there will be small firms which lack this spirit. Nevertheless, for the sake of expedience, some choices must be made.

The ABS defines “small” as non-manufacturing industries with fewer than 20 employees and manufacturing industries with fewer than 100 employees (ABS, 1993a). However, in the discussion that follows, we will adopt as a definition of “small business” firms with 20 or fewer persons employed, irrespective of the industry to which the firm belongs.⁸ In this we follow Bickerdyke and Christian (1994) and Johnson et al (1995). (For more discussion see Appendix A.1 of BIE (1992).)

It is frequently acknowledged that particular standards of measurement should be applied to farms as distinct from other businesses. Reasons for this include the fact that, as was indicated above, a size cut-off based on employment may not be appropriate for relatively capital intensive businesses. Accordingly, specific measures of “small” have been applied to farms, such as the area of crops sown, the size of the livestock turn-off and the estimated value of agricultural operations.

At this stage the job of defining “small business” is not quite finished. In addition to defining “small,” we must also set out what is meant by “business.” In defining the boundaries of a business, we may have regard to the legal entity, the economic entity or the ultimate owners.

⁷ ABS, *Small Business in Australia 1995*. This same definition was used by the House of Representatives Standing Committee on Industry, Science and Technology (1990) page xiii.

⁸ The ABS also publishes data relating to “very small businesses”, defined as firms with fewer than five employees. In 1994/95 the ABS estimated that there were 666,900 very small businesses in Australia, comprising 85 per cent. of all small non-agricultural businesses and 82 per cent. of all private non-agricultural businesses. Such firms employed 31 per cent. of small non-agricultural business employees (ABS *Small Business in Australia 1995*, page 57).

Alternatively, we may consider an element within a larger firm, such as a division, a plant or even an operational unit within a plant such as a single workshop. In what follows we will apply a “common sense” definition of the limits of a business analogous to what is usually meant in discussions of small business: a legal entity. Having defined the boundaries of businesses, we add finally that we follow the ABS in defining a business enterprise as an enterprise whose primary activity is the production of goods or services for sale to the general public, at a price intended to cover at least the costs of production.⁹

3. Small Business Research: Background and Issues

Since almost all farms are small by the definitions adopted above, the agricultural extension services operated by all State governments and the Federal government almost since the last world war constitute the most long-lived and comprehensive government support for small business research. With the exception of agriculture, until relatively recently, governments have been little involved with the promotion of the economic health of businesses of a particular size cohort. However, over the last twenty years governments have extended their concern to the welfare of small firms in all industries. This interest was initially crystallised by the report of the Wiltshire committee, about the same time as a similar study in the United Kingdom.¹⁰ The interest in the operation of small businesses has focused on the problems such firms face and the type of assistance they require, and has resulted in increasing support by local, State and Federal governments for small business research.¹¹

The growing research interest in small businesses has led to the identification of a number of specific problems faced by this sector. In the main, these problems relate to compliance with regulations, finance barriers, management skills and poor information resources. It has been suggested that small businesses may have difficulty negotiating contracts and dealing with intellectual property rights. The relatively risky nature of small business may make raising funds for expansion more difficult. Small firms may lack adequate management skills, in particular those concerning human resources and finance. They may suffer from a lack of information, such as performance indicators. Johns et al (1989) survey papers documenting these problems to 1989. A research agenda was suggested by Dunlop, Moir and Williams (1992).

9 Australian Bureau of Statistics, cat. no. 8114.0.

10 HMSO, 1971. Similarly, in the United States, the public awareness of issues particularly related to business size also grew, though perhaps dating from ten years earlier (Meredith, 1988 page 19). Gomulka (1992) notes the global increase in interest in issues concerning small business.

11 For instance as reported in DITARD, 1993.

A significant body of research has been concerned with understanding the importance of small business growth and its role in the growth of the economy. It has been observed that from the early 1970s, the share of employment contributed by small business increased gradually in most industrialised countries.¹² Researchers have attempted to explain this phenomenon from many perspectives, including the impact of information technologies and of growing international competition.¹³

Small business researchers have observed that the small business sector has been characterised by high turnover and a large amount of (so-called) business failure (see for instance Borland and Home, 1994, Berryman, 1993, Watson and Everett, 1992, and a comprehensive study of the UK experience in Storey et al, 1991). A possible explanation for this high rate of small business failure is that small businesses lack sufficient information about their intended markets and about the capital resources and management skills required to succeed. Other studies of the causes of business failure have suggested that training has a direct impact on the performance of small business.¹⁴ It has been identified that many small firms have assigned training a low priority, perhaps because of a perceived lack of high quality training programs and a lack of knowledge of what training is required.¹⁵ With this in mind, increasing efforts have recently been made to establish business management training facilities for small business owners, with programs in entrepreneurship and small business management being offered by universities and colleges of advanced education.

Since the early 1970s, activity in small business research in Australia has increased greatly. Research topics have included the birth, growth and failure of small firms, employment, innovation, training, finance, strategic planning and benchmarking. Perhaps partly as a consequence of research findings in the last decade, a range of programs have been devised to assist small business. The focus on small business accelerated with evidence that in the early 1990's recession small businesses may have displayed a particular resilience, possibly cushioning the impact of the downturn by maintaining employment at a time when large firms were shedding staff (Johnson et al, 1995). The contribution of small business to economic growth has in fact been the subject of considerable controversy, both in Australia and overseas. In Australia, a number of researchers have questioned whether the contribution of small business to employment growth has been exaggerated, suggesting, for example, that the

12 Stanworth and Gray, 1991, Table 1.1.

13 See for instance Williams (1990), Bickerdyke and Christian (1994), Burgess (1992) and Johnson et al (1994).

14 See for instance Berryman (1993).

15 Williams, 1991.

observed increase in small business employment may have been in part due to the forced down-sizing of large and medium-sized firms or to technological change and enhanced labour productivity. Looking at establishment-level employment in the manufacturing industry, Borland and Home (1994) find that for the period 1984 to 1985 the share of total job creation and job destruction decreases weakly with establishment size, but that establishments with greater than 500 employees account for the largest share of employment growth, suggesting that “claims regarding the role of small business in employment creation must be scrutinised carefully” (page 127). Bakker et al. (1994) also find evidence that the contribution of small business may have been exaggerated (page 40). Such studies are helpful in preventing small business researchers from getting carried away regarding the importance of this area, but should not be interpreted as suggesting that small business is unimportant: the reality is far from it.

There is evidence also that small businesses have been important contributors to export growth. The Australian Manufacturing Council (1993) estimated that, in addition to 700 small and medium firms which had already had strong export growth, there were another 6,000 firms in the manufacturing sector alone with potential to emulate their success.

Dunlop, Moir and William (1992) in their paper noted problems existing in small business research. They concluded that:

- Compared to other nations, Australia lacked serious, committed and competent small business researchers.
- Australian small business research was largely descriptive; it required more conceptual rigour and theoretical underpinning, employing wider sources of data than just ABS data.
- There had been little effort to build research from existing and/or modified theoretical models, or to engage in appropriate model building.
- Small business research lacked a national research focus and direction and as a result was fragmented.
- Much small business research had developed from the special interests of specific researchers and so was of limited policy relevance.
- There was a need to attract people from different professions and from different fields of study to broaden and enrich small business research.

- There was a lack of comparative studies (notably between Australia and overseas) and there were few longitudinal studies showing developments over time.

These observations are an important challenge for small business researchers and provide helpful guidelines for future small business research programs.

4. Small Business Research Data Sources

The 1990 Beddall Committee raised the need for more and better small business research, and stressed the importance of reliable and comprehensive data about small businesses in this research. The committee emphasised deficiencies in existing databases, concerns which have been echoed by later writers such as Dunlop et al (1993). In this section we describe briefly some of the key small business data sources that exist today.

Yellow Pages

The Yellow Pages market research department conducts a quarterly survey of small business. It currently surveys a minimum of 1,200 firms per quarter. The survey takes in all six states and the two mainland territories and covers both metropolitan and non-metropolitan areas. The inclusion criterion for firms in the survey is that they have fewer than twenty full time employees (including the proprietor if he or she is working in the business). Firms may therefore have a large number of part-time employees and still satisfy the inclusion criterion (this is so for reasons of simplicity). The average number of full time employees of the firms in the database is approximately 4.5. Firms in the survey sample are initially selected randomly from the electronic white pages. The sample is weighted by industry and location according to the ABS business register weights. The database is a panel. The rate of attrition from the sample is about 15 per cent. per quarter (variously due to firm liquidations, management changes, firms being too busy to complete the questionnaire etc.) Firms lost in this way are replaced with like firms (ie. like in size, industry, state, metro/non-metro). This practice goes some way to preventing the sample from being biased toward mature firms. The survey has been conducted for the past three years.

The core variable gathered for the database are as follows: sales, employment, operating expenses, profits, capital expenditure and wages. Yellow Pages also gathers: firms' perception of the economy "now" and a year into the future; price information (whether the firm has increased, reduced or maintained prices and whether this is likely to change); and attitudes to the government. Summary tables are produced with information organised by state, industry,

male/female proprietor, family/non-family business, and whether the firm aspires to grow significantly, moderately or not at all.

The Financial Management Research Centre

The Financial Management Research Centre (FMRC) at the University of New England conducts an Australia-wide survey of around five thousand small firms per year. The FMRC obtains information partly from accountants and partly from individual businesses via a survey mail-out. The FMRC database fields include profitability, personnel structure, profit and loss information and balance sheet information. In addition, FMRC collects information specific to particular industries to facilitate construction of industry-specific productivity measures. Information on the database is aggregated into industry averages; raw, firm-level data is destroyed. The FMRC database covers about seventy industries. FMRC also publishes financial profiles of Australian small businesses by industry, as well as performance indicators for small business.

The FMRC data are generated in three steps. First, financial surveys of Australian industry and professional sectors are carried out. The results obtained are then processed into averages; the averages are subsequently broken out into size classifications based on turnover. The sample is not necessarily typical of small business in general. The sample size for each sector varies, but is checked to ensure that it is sufficient to produce robust results. Statistical variance tests are applied to ensure the end results are not biased, with extreme results eliminated. The survey gathers data on profitability, productivity, employment and business risk. About 70 surveys are conducted for industry and professional sectors each year. The centre publishes results of its financial survey work in a series titled *Small Business Profiles*. The results report financial performance by business size, location, type and profitability levels.

The FMRC produces business benchmarks that are designed primarily to enable individual businesses to compare their performance with others operating in the same sector, supplementing internal performance analysis.

The Australian Bureau of Statistics (ABS)

The Australian Bureau of Statistics (ABS) is a very important source of Australian small business data. The ABS collects data specifically on small enterprises and as part of its normal data gathering exercise for business in general.

The key ABS small business publication is *Small Business in Australia*. This publication provides statistics on the size and structure of the small business sector, its employment, performance and contribution to economic activity. These statistics are gathered from a variety of ABS and other sources (including household surveys, surveys of employment and earnings, the Business Register etc.).

The ABS is involved in the Business Longitudinal Survey project (see Bureau of Industry Economics/Department of Industry, Science and Technology, below). In addition, the ABS maintains the ABS Business Register. This is a large database of Australian firms compiled from censuses and other ABS data gathering. The Register is updated biannually, and so may have some element of overstatement due to missed “deaths”; it is estimated to be 85% to 90% accurate. The Register has been maintained since 1986. The Business Register carries information on the structure of each business, its address and contact details, its industry classification and historical employment data.

Productivity Commission¹⁶

Until its subsumation within the Productivity Commission, the Bureau of Industry Economics small business research unit produced an annual Small Business Review in which its research interests and results were presented and suggestions were made for further research. It also produced a biannual Industry Brief on economic trends in the small business sector.

The 1994-95 Commonwealth budget allocated \$7.25 million to the expansion of research into the growth and performance of small and medium sized firms (SMEs). A large proportion of these funds has been directed to developing a database for small and medium firms—the SME Research Database (ABS, 1995). The ABS and the Productivity Commission collaborated on the design of the database, and the ABS collects the data. The core of the database will be the Business Longitudinal Survey (BLS), which will collect data on the growth and performance of firms. The database will focus on factors affecting the growth and decay of SMEs. Information on growth and decay will be collected in the BLS as well as from supplementary data collection. Another focus of the database is the employment generation capacity of SMEs.

The project will also make use of existing ABS data including employment data, innovation data and data on manufacturing firms, to provide an additional longitudinal database in a

¹⁶ The Productivity Commission was formed from the amalgamation of the Bureau of Industry Economics, Department of Industry, Science and Technology, the Industry Commission and EPAC. The BIE maintained an active research program on small business and this work continues within the Productivity Commission.

relatively short time, without waiting for the BLS to grow over time (the first observations in the BLS are for the 1994-95 financial year). It is planned that the survey will cover about 13,000 business units.

Australian bureau of agriculture & resource economics (ABARE) along with the State Departments of Agriculture

ABARE gathers and generates much information for farms and small businesses in the primary industries. In addition, the State governments through their departments of agriculture in cooperation with ABARE and CSIRO have for many years provided extensive research and management advice to farmers. Over the last decade or so the scope of the advice has been broadened to include other small rural-based businesses and also businesses in the fishing and forestry industries.

Australian Chamber of Commerce and Industry (ACCI)

The ACCI's quarterly National Survey of Business Expectations provides information on business expectations, sales, exports and wages growth, profitability, overtime, employment, investment and other firm-level indicators. The survey brings together the results of eleven smaller surveys conducted by the ACCI's member organisations, including the Employers' Federation of New South Wales, Queensland Chamber of Commerce and Industry and Victorian Employers' Chamber of Commerce and Industry. In aggregate, there are over 5,000 firms in the survey's target sample, including firms from each State and across a variety of industries. The February quarter survey summarised the responses of 3,124 respondents, with approximately half of these described as small businesses. The survey publication disaggregates the firm responses by size into four size categories: one to 19 employees; 20 to 99 employees; 100 to 999 employees; and greater than 1,000 employees.

IBIS Business Information Pty Ltd

The IBIS enterprise database records certain key information for every incorporated and unincorporated firm in Australia with revenue over \$20 million, except government departments and foreign companies trading in Australia that are not locally incorporated. The database also includes publicly listed and government business enterprises from New Zealand, and PNG companies listed on the ASX. The focus of the IBIS database is presently larger firms, however the database is being continually expanded and in the future may be a useful source of small business data. As it is, it still contains considerable data on medium-sized firms.

5. Other Government Involvement in Small Business Research

A number of Federal and State government departments undertake or encourage small business research and offer services to small business. The National Industry Extension Service (NIES) is a Commonwealth-State cooperative organisation which provides information, advice and referral services to firms. In recent years, NIES has increased its focus on the needs of small and medium sized enterprises. NIES enables firms to access a wide range of best practise expertise. The Australian Tax Office (ATO) collects small business information as part of its tax collecting role. The ATO publishes statistics related to taxation payments. Many State government departments undertake small business research and support services. Small Business Victoria, for example, supports small business through its business facilitator information services, referrals to private sector service providers and by interacting with other agencies and associations to facilitate business growth. It also produces publications which provide information on how to start and run a successful small business. Another government departments that gathers small business information is the Bureau of Transport and Communication Economics.

6. Private Sources of Small Business Data

Banks involved in lending to small business maintain large databases on their client firms and use their databases to establish performance benchmarks to assist credit appraisals. Firm databases maintained by banks will of course be non-representative of small business in aggregate to the extent that banks specialise in lending to particular lines of business. Credit firms such as Credit Reference Association of Australia and Dun & Bradstreet maintain massive databases on small business for largely the same reason as the banks; that is, to judge credit risk. Private accounting and consulting firms undertake research and provide support for small business. Surveys of small business opinion are conducted by many private firms and associations including Arthur Anderson, the Chambers of Commerce, The Australian Society of Certified Practising Accountants and The Institute of Chartered Accountants. Other professional associations such as Bar Councils and the AMA keep information on small partnerships, medical practitioners, lawyers, accountants etc. In recent years private information gathering bodies have emerged that also maintain large databases.

7. Small Business Literature Databases

In addition to the above statistical databases, literature and citation databases exist to assist small business researchers. For example, the small business research unit at The Flinders University of South Australia maintains three small enterprise literature databases comprising over 5,000 citations. The databases are assembled from continuous scanning of the international academic and professional literatures. The small enterprise theory, research and policy database concerns theory-building, research methodology and policy issues, with small business as a focus. It covers a wide range of disciplines including finance, management, sociology, psychology, geography, politics and economics.

8. Small business performance indicators

Performance indicators provide benchmarks against which small firms can gauge their own relative performance. Small Business performance indicators will be the focus of upcoming research work in the IBIS collaborative program in enterprise dynamics.

9. Concluding comments

The purpose of this paper has been to describe Australian small business data sources. While it was observed that considerable information on small business in Australia is available, unit record panel data is still not widely available to researchers. Such disaggregated panel data has enormous advantages for researchers. While aggregate data can be used to reach valuable research conclusions, unit record data present more opportunities for detailed research, such as into the growth and decay of firms, a phenomenon which is largely hidden when firms are aggregated. Panel data, by tracking the activities of individual firms over time, permits a more sophisticated type of analysis than that which is possible with cross-section data. Using panel data, researchers can investigate changes and, perhaps, *causes* of change in firms' performance. Specifically, researchers can investigate the causes of growth and failure in firms by capturing the entry, lifespan and exit of individual firms and investigating firms' experiences following their birth and preceding their death.

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