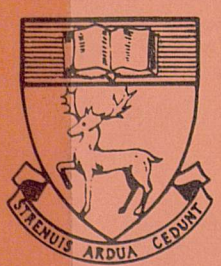
Department of Geography
University of Southampton

New Manufacturing Firms in South Hampshire : Survey Results

C. M. Mason

No. 13

Discussion Papers



ISSN 0140-9875

New Manufacturing Firms in South Hampshire : Survey Results

C. M. Mason

No. 13

June 1982

The Editor
Discussion Papers,
Department of Geography,
The University,
Southampton,
SO9 5NH

Price 75p

NEW MANUFACTURING FIRMS IN SOUTH HAMPSHIRE:

SURVEY RESULTS

C M MASON

June 1982

Department of Geography
University of Southampton
Southampton SO9 5NH

PREFACE. This is the second in a series of occasional papers aimed at disseminating preliminary results from a programme of research into the South Hampshire economy. The previous paper (Discussion Paper No 7) looked at foreign-owned manufacturing enterprises. The focus of this paper is at the opposite end of the ownership spectrum; its concern is with recently started manufacturing firms. The research was again funded by the Social Science Research Council (Grant No HR 6796). Their support is gratefully acknowledged. Colin Taylor again provided valuable research assistance. Last, but by no means least, sincere thanks must go to the founders of the firms who all gave generously of their valuable time to take part in the survey.

SUMMARY. There are strong grounds for believing that new firm formation, and particularly the numbers of high technology enterprises, will exhibit considerable spatial variations within the United Kingdom. Recent research has certainly indicated that the rate of new manufacturing firm formation is low in both inner city areas and in assisted regions. Furthermore, very few of the firms which have been started in these areas display innovative characteristics. This study looks at the other side of the coin by investigating new manufacturing firm formation in South Hampshire, an area which has many of the social, economic and environmental characteristics which are thought to be conducive both to new firm formation and specifically to the creation of high technology enterprises. Aggregate data tentatively confirms that South Hampshire has enjoyed a relatively high rate of new manufacturing firm formation during the 1970s, although their contribution to employment has been very modest. Interviews with 52 firms started during or after 1976 reveals few significant differences with new manufacturing businesses in declining industrial areas: the majority are very small, technologically unsophisticated, geared to performing subcontract work, serve a localized market area and are run by founders who are cautious and conservative in outlook and hold limited ambitions for their businesses. However, a small proportion of new enterprises in South Hampshire are dynamic, technologically innovative and growth-oriented.

"The reality is that ... new firms are by no means homogeneous in their attributes and only closer examination of such firms in particular spatial contexts will bring us nearer to a conception of the truth" (Lloyd and Dicken, 1982a).

1. SMALL FIRMS: THE NATIONAL CONTEXT

The small firm sector in Britain has been in relative decline since the mid-1930s (Bolton, 1971; Bannock, 1976). However, within the last five or six years there has been a marked revival of political interest in the potential role which small businesses can play in solving Britain's current industrial and unemployment problems. One of the reasons for this reappraisal has been a growing concern about the economic and political implications of the increasing level of concentration, both in aggregate and in individual industries (Prais, 1976; Hannah and Kay, 1977; Hart and Clarke, 1980). It is argued that small firms are essential in any economy because they enhance competition and, on account of their individualistic nature and the lack of unionization amongst their workforce, they pose few threats to political authority - in marked contrast to big business (Johnson, 1978). And because small firms lack market power, they cannot contribute to inflation (Bannock, 1981a). The renewed interest in small firms also stems from the widespread disillusionment with the economic performance of large corporate organizations. In particular, mergers and acquisitions - the main factor in the growth of concentration - have created few of the anticipated advantages (Meeks, 1977). Furthermore, it is suggested that any technical and managerial economies derived from large scale production are more than offset by certain adverse consequences of large size, notably on worker motivation and on industrial relations (Johnson, 1978). In addition, small firms are believed to play a major role in invention and innovation (Bannock, 1981a). Finally, small firms are thought to be a major source of job creation and are thus seen as making a valuable contribution to the reduction of unemployment, particularly in inner city areas and assisted regions. The work of Birch (1979), who showed that in the United States small firms with less than 20 employees created 66% of all net new jobs, has provided valuable support for this claim. However, Storey (1980) and Fothergill and Gudgin (1979) have both emphasised the need for caution in applying these results to the United Kingdom, firstly because of confusion

over the correct interpretation of the figures, and secondly because the data cover both manufacturing and services, with services dominating in the job generation process.

Although there is relatively little empirical evidence to support many of these claims, both the present government and its immediate predecessor have nevertheless taken a considerable number of steps to help the small firm sector and to encourage more people to go into business on their own account. Many of the measures have been designed to increase the flow of funds into the small firm sector. Examples include the removal of restrictions on private companies from buying back their own shares, the Loan Guarantee Scheme in which the Government underwrites 80% of loans up to £75,000 made by banks to small firms, to encourage them to lend outside their normal commercial criteria, and the Business Start-Up Scheme which allows private investors to obtain tax relief on share capital subscribed in new companies. Other measures have included improvements in the 'climate of enterprise', for example through reductions in marginal rates of personal taxation and changes in Capital Transfer Tax, the removal of many of the administrative and legislative burdens on small businesses, an expansion of the Small Firms Counselling Service, and the provision of tax incentives to relieve the shortage of small industrial premises. In addition, many local authorities are now also actively involved in helping the small firm sector, for example by providing loan finance, establishing advisory services, undertaking nursery unit construction and rehabilitating old industrial premises.

It is too early to evaluate the effects of this support for the small firm sector. However, the available data, despite their many shortcomings, indicate that the long-term decline of the small firm sector in the United Kingdom may have already been halted and even reversed. Both the absolute number and the proportion of employees in small manufacturing enterprises have risen between 1973 and 1978 (Bannock, 1981b), although the extent to which this is a function of the 'bad' performance of large firms rather than the 'good' performance of small firms is difficult to determine. In addition, new company registrations and additions to the Register of Business Names have both increased steadily between 1974 and 1980 after a

fall in 1973-74, suggesting an improvement in the rate of new business start-ups, although this has been accompanied by a sharp rise in company liquidations in 1980 (Bannock, 1981b). It seems probable that most of the new businesses have been created in the service sector. Indeed, the Department of Industry has recently estimated that the manufacturing sector accounted for only 9.2% of all new businesses stared during 1980 (Ganguly, 1982).

By no means all parts of the country have benefitted from this seemingly favourable trend in business start-ups. In particular, new firms appear to have had little positive impact in the declining parts of the space-economy. Rates of new manufacturing firm formation remain low in inner city areas (Nicholson et al, 1981; Cameron, 1980; Lloyd and Dicken, 1981). Furthermore, evidence from Greater Manchester and Merseyside indicates that the majority of new manufacturing enterprises are conservative and cautious in outlook, relatively unsophisticated, operating in fairly limited and finite market niches and making an extremely modest contribution to job creation (Lloyd, 1980). The rate of new manufacturing firm formation in the Northern Region has also been judged to be low, and only a very small proportion of the businesses which have been started are innovative. In addition, most are geared to local markets and hence dependent on the general economic state of the region (Johnson and Cathcart, 1979a; Storey, 1981a).

There are grounds for believing that the characteristics of new manufacturing firms and the rate of new firm formation might be more favourable in the shire counties of southern England. Studies of the founders of new firms have shown that there is a much higher probability that a man who starts his own business will have previously worked in a small rather than a large company (Johnson and Cathcart, 1979b; Gudgin et al, 1979). Given that the proportion of small firms is much greater in the South East, South West and East Anglia than in other regions, then this is likely to be reflected in their substantially higher rates of new firm formation. Furthermore, successful new firms are more likely to be run by well-educated founders, and by founders with previous managerial experience. Both types appear to have greater accessibility to outside finance and tend to start their

firms in newer industries with greater growth potential. The South East contains the highest proportion of population with degrees or equivalent qualifications and also has a higher proportion of its population in managerial, professional and technical occupations than any other region (Gudgin et al, 1979; Storey, 1980).

We might therefore anticipate that there will be urban and regional variations in both the rate of new firm formation and in numbers of successful new enterprises. In particular, those parts of the South East outside Greater London plus the adjacent regions of East Anglia and the South West might be expected to contain a large proportion of new manufacturing firms, many of them displaying dynamic and innovative characteristics. However, the lack of empirical evidence prevents any informed comment on this possibility. It is to this information gap that the following study of new manufacturing firms in South Hampshire - part of the buoyant Outer South East - is addressed.

2. SOUTH HAMPSHIRE: BACKGROUND CONDITIONS FOR NEW FIRM FORMATION

The study area of South Hampshire, which contains the cities of Portsmouth and Southampton, their respective commuting hinterlands and parts of mid and south-west Hampshire, areas which are much more rural in character, is the largest urban-industrial complex in the South East Region outside Greater London (Figure 1). In 1978 it contained 11.8% of all manufacturing jobs in the ROSE area. South Hampshire is one of the few areas in the United Kingdom to have enjoyed an expansion in its manufacturing sector throughout the 1960s and 1970s. Its manufacturing workforce increased by 14.6% between 1961 and 1971 while contracting nationally by 2.2%, and grew by a further 4.1% between 1971 and 1978 while declining nationally over the same period by 9.8%. Electrical engineering (order 9) accounts for approximately one-quarter of manufacturing jobs in South Hampshire, with electronics (mlhs 364-367) on its own accounting for one in every five employees (Figure 2).

Until the Second World War both Portsmouth and Southampton were single industry towns. Portsmouth was dominated by the Royal Naval Dockyards (Riley and Smith, 1981) and Southampton functioned

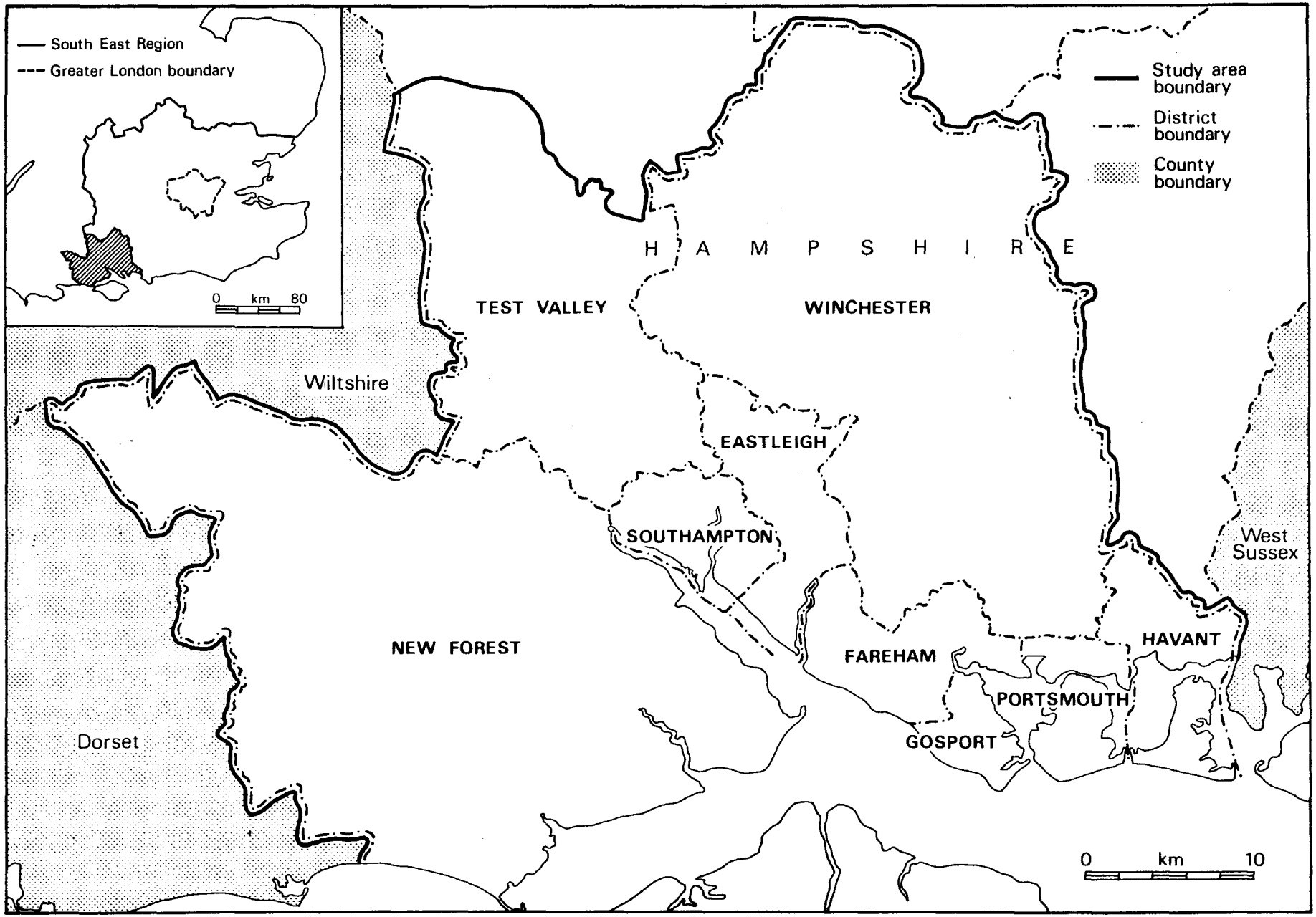


Figure 1 The South Hampshire Study Area

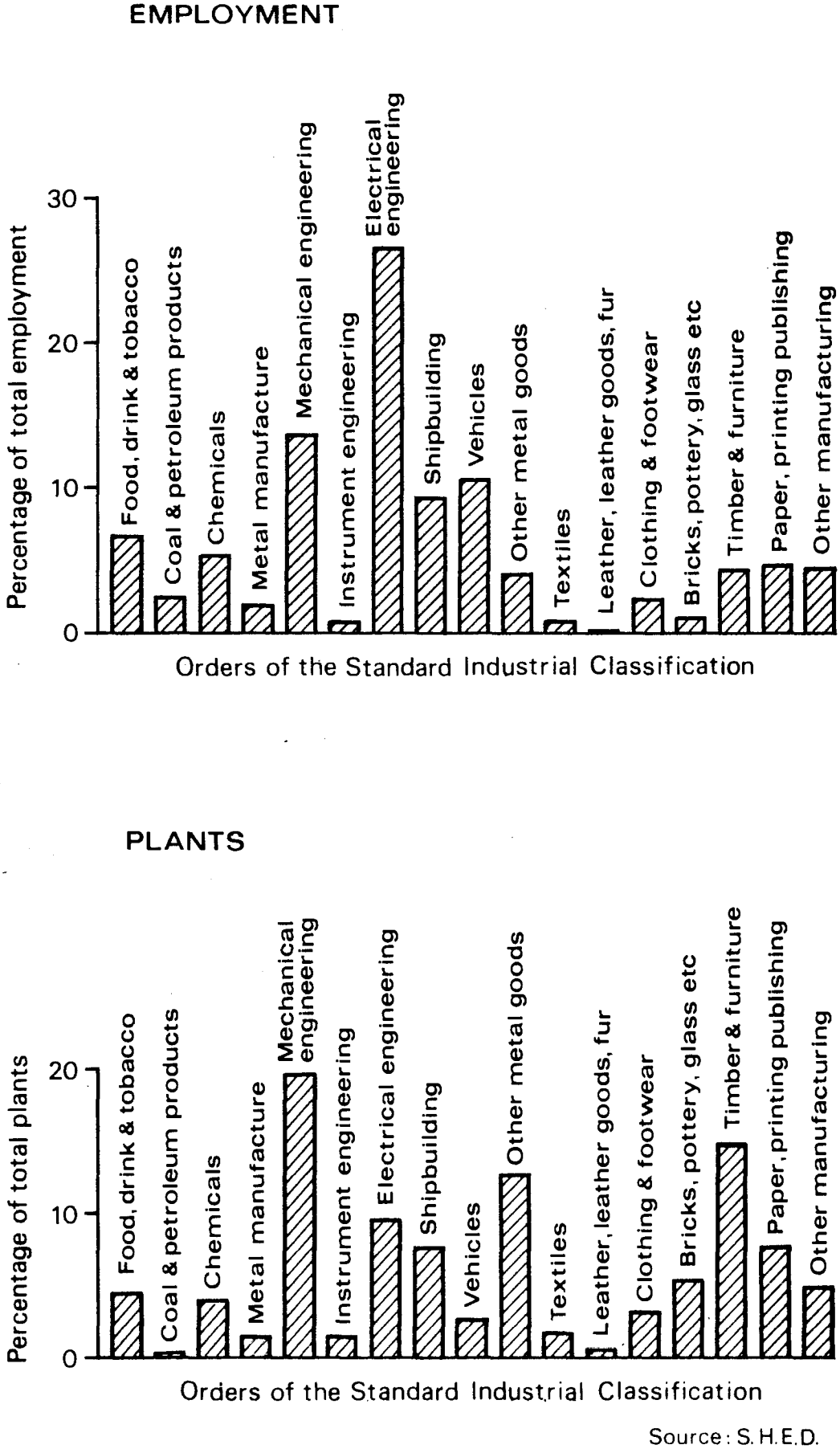
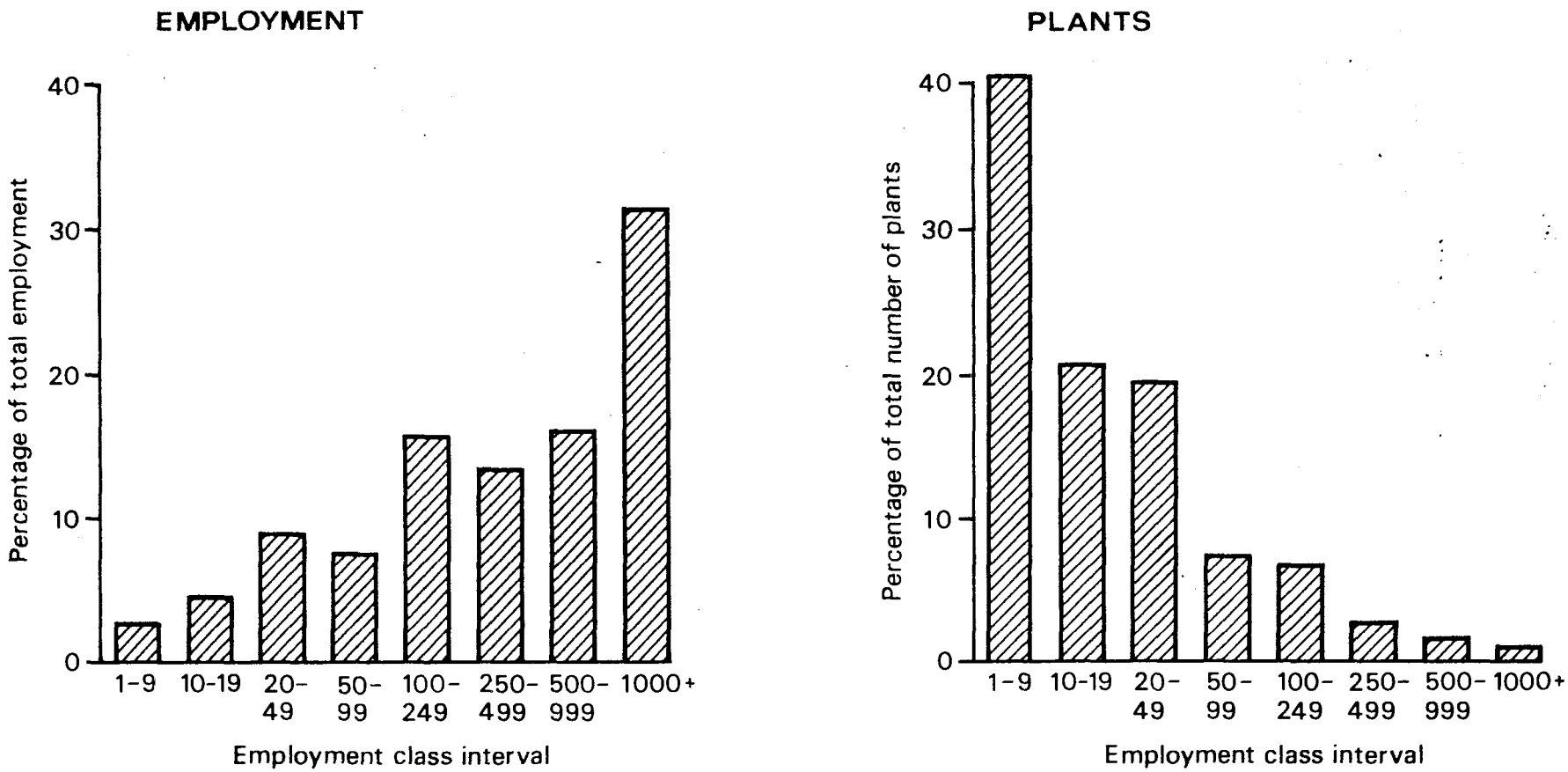


Figure 2 Manufacturing Activity in South Hampshire in 1979, by Industry Type

primarily as an ocean-going passenger port, with little in the way of a manufacturing sector other than a shipbuilding and ship-repair industry associated with its port activities and a railway engineering works at nearby Eastleigh (Ford, 1934). The expansion and diversification of South Hampshire's manufacturing sector since 1945 has largely been a product of the in-movement of firms, particularly from London and the Outer Metropolitan Area, although firms with overseas origins have also been significant (Riley and Smith, 1981; Mason, 1981a, 1982a). Indigeneous growth, in contrast, has played only a modest role. None of the 14 largest manufacturing firms in South Hampshire in 1979 (measured by size of workforce) were locally-owned, and only two locally-owned manufacturing enterprises appear in the latest Times 1000 list (1980-81). However, this does understate the role of entrepreneurial activity in South Hampshire because many of its independently-owned firms have been acquired by the corporate sector, usually while still quite small, thereby losing both their independence and identity within the larger organization. Indeed, two of the six largest independent, locally-owned manufacturing firms in South Hampshire in 1979 were acquired by London-based enterprises during the following year (Mason, 1981b).

In view of these developments it is not surprising to note that South Hampshire's manufacturing sector is dominated by large, externally-owned establishments. Just 16 plants, each with 1000 or more employees, and comprising just 1% of the plant population, account for 31% of manufacturing jobs in the area (Figure 3). There is evidence that employees in small firms are more likely to start a business of their own than those working in large firms (Gudgin et al, 1979; Johnson and Cathcart, 1979b). The effect of South Hampshire's 'top heavy' plant size structure might therefore be to depress its rate of new firm formation. However, this potentially adverse situation is at least partly offset by the fact that small establishments (mostly single-plant firms) are very significant in South Hampshire: 81% of its plants have less than 50 employees while two out of every five have fewer than 10 employees (Figure 3).

Almost three-quarters of manufacturing employees in South Hampshire in 1979 worked in plants which were owned by companies whose headquarters were outside the sub-region, and in many cases outside



Source : S.H.E.D.

Figure 3 Manufacturing Industry in South Hampshire in 1979, by Size of Plant

the United Kingdom (Mason, 1982a). From a peripheral region perspective, a 'branch plant economy' is regarded as being inimical to the development of new firms. The lack of white collar and skilled manual workers in such establishments means that there are relatively few employees with the expertise to set up a new enterprise in order to exploit an idea or market opportunity. The mature technology which they generally use is also unlikely to provide a stimulus for new firm development (Thwaites, 1978). However, branch plants in South Hampshire seem less likely to have such a detrimental impact on new firm formation. A number of establishments have on-site R and D facilities, others are either a divisional or the UK subsidiary headquarters, and many are engaged in the manufacture of products which are at a relatively early stage in their 'life cycle'. Employees are therefore more likely to be engaged in problem solving rather than routine tasks, and as a result might be able to identify opportunities which they can exploit on their own account (Thwaites, 1978).

South Hampshire is perceived to be a very attractive place in which to live (Gould and White, 1968), and as a result it has received a large in-migration of economically active population throughout the past three decades to take-up the plentiful supply of jobs on offer. It has been suggested that population in-migration is associated with a high birth rate of new firms (Goddard, 1978). However, any link is likely to be indirect since few entrepreneurs actually move their place of residence in order to establish a new business (Gudgin, 1978, but see Cross, 1981). To a large degree, population migration is selective, with young and middle class groups having the greatest propensity to migrate (Short, 1978). The middle class contains within its ranks a large proportion of potential entrepreneurs. Thus, South Hampshire, along with the rest of Outer South East England, might be expected to have a high rate of new firm formation because of its relative concentration of potential entrepreneurs who have been attracted by the amenity-rich residential environment (Keeble, 1978).

3. NEW MANUFACTURING FIRMS IN SOUTH HAMPSHIRE: AGGREGATE EVIDENCE

South Hampshire has many attributes which are considered conducive to new firm formation. The South Hampshire Establishment Databank

Table 1. New Manufacturing Firm Formation: selected empirical findings

area (time period)	no. of jobs in new firms	employment in new firms as % of total jobs in all plant openings	employment in new firms as % of total end-year employment	new firms per 1000 manufacturing employees in end-year
South Hampshire[1] (1971-79)	3636	41.0	3.5	3.20
Cleveland[2] (1965-76)	1901	12.4	1.8	1.27
East Midlands[3] (1968-75)	55,600	41.8	4.2	2.95
Greater Manchester[4] (1966-75)	12,675	44.4	3.5	-
Merseyside[4] (1966-75)	6261	26.3	3.7	-
Scotland[5] (1968-77)	12,194	22.5	2.2	1.04

Sources:
1. SHED
2. Robinson and Storey (1981)
3. Fothergill and Gudgin (1979) and Gudgin et al (1979)
4. Lloyd and Dicken (1982b)
5. Cross (1981). Gudgin has criticized this estimate of the number of new manufacturing firms in Scotland as being too low. (Review of Cross (1981) in Environment and Planning A, 14 (1982), 136-137).

(SHED) (Mason, 1981b) identifies 333 new manufacturing firms as having been started in the period 1971 to 1979 and surviving (as independent companies) to mid-1979, providing 3636 jobs in that year. This was equivalent to 21.5% of the 1979 plant population in South Hampshire but because of their small size (61% had less than 10 employees) new firms accounted for only 3.5% of the area's total manufacturing employment. Comparing the level of new firm formation with that of other areas is problematical because of the difference between studies in data sources, time periods and time spans and the lack of a base year stock for South Hampshire to calculate start-up rates. However, it is possible to tentatively conclude that the rate of new firm formation has been higher in South Hampshire than in a number of peripheral areas (Table 1). Moreover, it compares favourably with the East Midlands which is claimed to have been one of the most successful regions in the United Kingdom for new firm formation in the post-war period (Gudgin, 1978).

There is evidence that new firms are generally started in industries in which their founder previously worked and are located within commuting distance of his home (Gudgin, 1978). In view of the dominant position of the electronics industry in South Hampshire it might have been expected that a large number of new electronics firms will have been formed. However, the electronics industry accounted for just 11% of new enterprises in South Hampshire. New manufacturing firms have been much more significant in the mechanical engineering (21%), metal goods (18%) and timber and furniture (13%) industries which each have the advantages of a significant small firm sector to 'spin-off' new enterprises, and low barriers to entry (Figure 4).

The distribution of new manufacturing firms within South Hampshire has clearly favoured locations outside the two cities. Numerically, most new firms have been established in the New Forest district, particularly in the towns of Totton, New Milton and Ringwood (Figure 5; Table 2a). The contribution made by new firms to total manufacturing employment has been most significant in suburban and rural local authority areas, notably in Fareham, Winchester, Havant and, if the Fawley petro-chemical complex is excluded (the Waterside Parishes), in the New Forest. The rate of new firm formation (expressed as the number of new businesses per thousand manufacturing employees in 1971

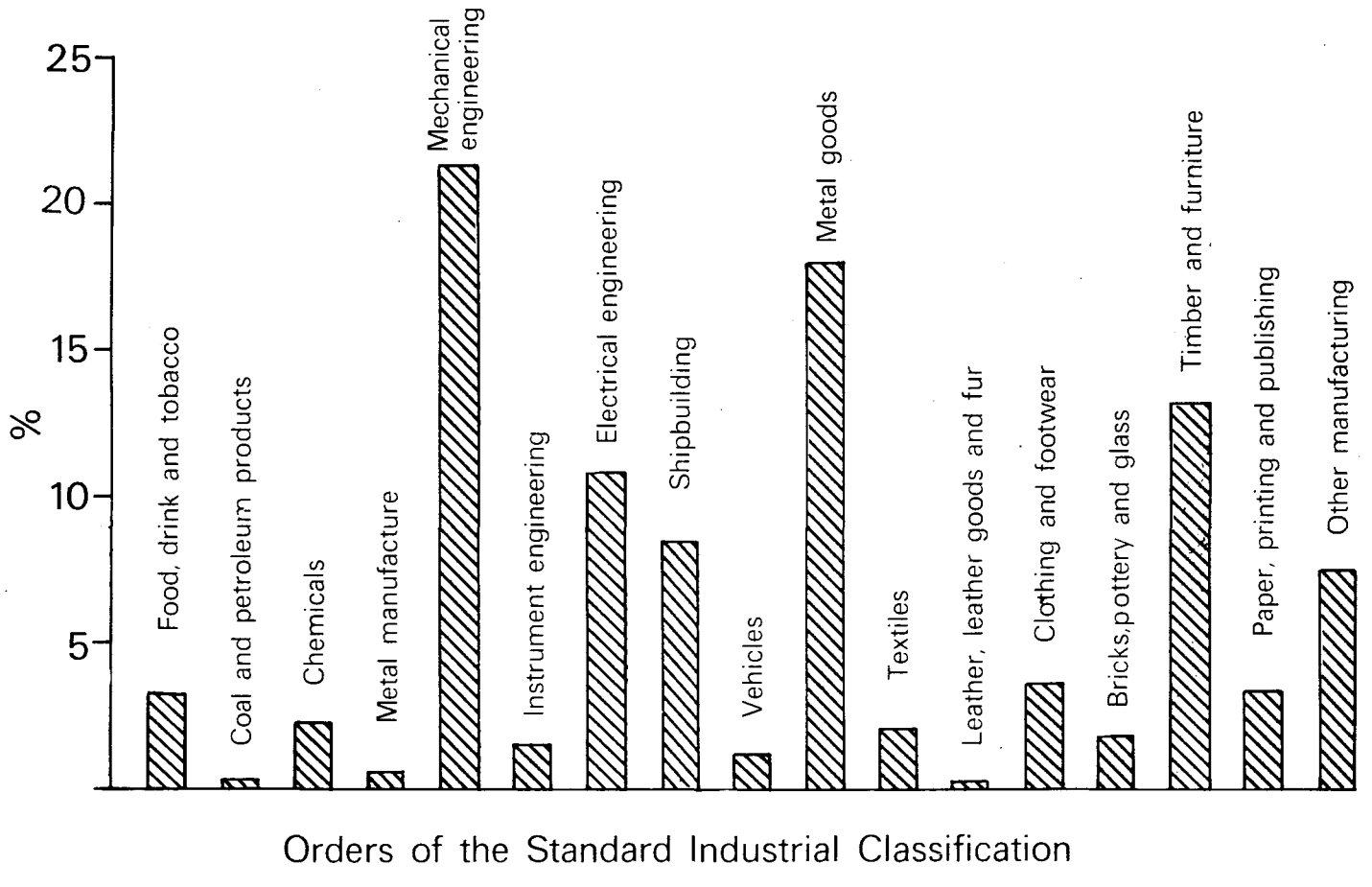


Figure 4 New Manufacturing Firms in South Hampshire 1971-79: Industrial Distribution

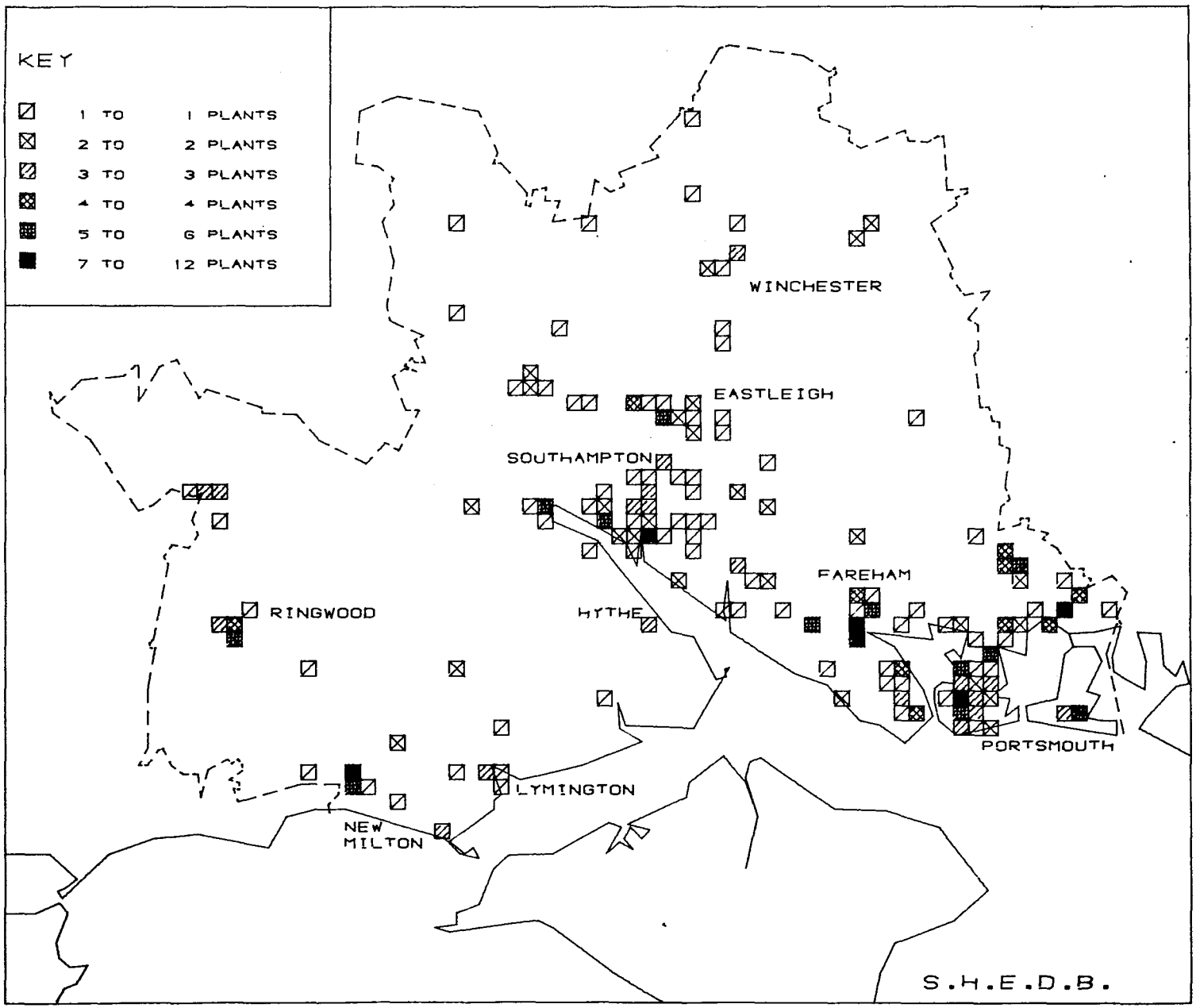


Fig. 5 New Manufacturing Firms in South Hampshire, 1971-1979

Table 2. New Manufacturing Firms in South Hampshire, 1971-79: spatial distribution

A: by Local Authority Area

local authority area	number of new firms (1979)	employment in new firms as % of total manufacturing employment in 1979
Portsmouth	58	3.1
Gosport	16	1.3
Fareham	43	7.4
Havant	46	6.0
Southampton	45	1.5
Romsey	12	5.0
Eastleigh	30	3.2
Winchester	20	7.0
New Forest	63	4.2
of which: Waterside Parishes	(4)	(0.6)
Rest of New Forest	(59)	(7.2)
South Hampshire	333	3.5

source: SHED.

B: by Employment Office Area (EOA)

employment office area	no. of new firms (1979)*	no. of new firms per 1000 manufacturing employees in 1971**
Portsmouth+	59	1.7
Fareham+	46	6.6
Havant	46	4.1
Gosport	16	1.7
Southampton-Woolston	68	2.1
Eastleigh	18	1.6
Hythe	2	0.4
Romsey	15	6.3
Winchester+	16	3.4
Lymington	23	5.5
Ringwood	24	14.2
South Hampshire	333	2.7

* source: SHED

** source: unpublished Department of Employment statistics

+ a small part of the ECA falls outside the study area boundary

in each employment office area) reveals essentially the same spatial pattern. The cities of Portsmouth and Southampton, along with the heavily industrialized EOAs of Gosport, Eastleigh and Hythe, have the lowest rates of new firm formation; suburban areas such as Havant and Fareham have much higher rates, while the highest rates are found in rural areas, notably in Ringwood and Lymington (Table 2b).

4. NEW MANUFACTURING FIRMS IN SOUTH HAMPSHIRE: SURVEY RESULTS

A survey of new manufacturing firms in South Hampshire was undertaken in order to augment the limited range of information provided by the aggregate data. The main objectives were to investigate the backgrounds and motivations of the founders, the types of activities undertaken by new businesses, their financial characteristics and the potential problems which concern new firms at their formation and during their early development. Because these issues are best examined in recently formed enterprises the survey was restricted to firms which had started during or after 1976.

Survey Methodology

One of the main methodological difficulties encountered in such research is in actually finding new businesses. They tend to be very small, occupy obscure premises and are generally unregistered with official agencies. Often the firms themselves are unaware of the need to register with, for example, the Health and Safety Executive and local authorities. In addition, official data sources generally do not concern themselves with establishments employing less than 10 employees, thereby excluding the majority of new firms from their records. Consequently, as Lloyd (1980) points out, researchers and policy-makers are often effectively 'blind' to the existence of much of the new business sector.

The method of identifying new firms in South Hampshire was based on SHED. This provided information on all manufacturing establishments in the area in mid-1979, and was supplimented by a listing of all new plants opened at any time during 1979. By using business and telephone directories it was possible to identify and eliminate all establishments which either were not independent or were operating prior to 1976. The remaining plants were then contacted by telephone to verify that

(i) they had started during or after 1976, (ii) were engaged in manufacturing, and (iii) were independent companies. Establishments which did not appear in the 1980 telephone directory, and which could not be traced by British Telecom from their own records, were assumed to have gone out of business. The survey is therefore inevitably biased to the extent that it relates only to surviving new firms and cannot provide any information on why businesses fail within a short time of their formation. Finally, local authorities in South Hampshire were contacted in an attempt to confirm that the resultant list of new firms was comprehensive. However, only two were either willing or able to provide information about possible new businesses in their area.

SHED should, in theory, have included every manufacturing establishment in the sub-region in 1979. However, it is virtually impossible to construct an industrial databank which achieves a fully comprehensive coverage of the very smallest and newest plants. Consequently, although the aim was to interview the entire population of new enterprises in South Hampshire, the resulting list must inevitably be regarded as incomplete. Indeed, a number of additional new firms (including some which started in 1980) were identified from the business pages of the Southern Evening Echo. However, even if extensive additional searches had been undertaken it is unlikely that many more new firms would have been revealed. A total of 62 firms were confirmed as having started during or after 1976 and still operating in January 1981. Each firm was initially approached by letter to explain the nature and purpose of the research and was then contacted by telephone to request an interview. Fifty-two firms (84%) agreed to co-operate in the survey and were all interviewed during the first half of 1981. The typical interview lasted between 45 minutes and one hour.

Table 3. Location of Surveyed Firms

district	number of new firms	%
Southampton	13	25.0
Eastleigh	3	5.8
Winchester	1	1.9
Romsey (part of Test Valley)	2	3.8
New Forest	17	32.7
Portsmouth	4	7.7
Fareham	3	5.8
Havant	9	17.3
	52	

The location of the surveyed firms within South Hampshire (Table 3) is significantly different to that of new firms formed in the period 1971 to 1979 (Table 2a). Although it in no way invalidates the survey findings, more of the interviewed firms were located in Southampton and the New Forest than expected, while fewer than expected were drawn from Portsmouth and Fareham. It may be the case that recently established new firms display a different locational pattern to those which started earlier in the 1970s. However, a more plausible explanation for the discrepancies is that the use of the Southern Evening Echo to derive some of the surveyed firms will have introduced a bias in favour of the Southampton area, its place of publication.

Entrepreneurship and Motivation

In reporting the results of the survey perhaps the most obvious starting point is to discuss the characteristics of the entrepreneur himself, his background, business experience and motivations. The first feature of note is that firms with two or more founders were more common than those with a single founder. The 52 firms surveyed had a total of 96 founders: only 22 firms (42%) were started by one person whereas 20 were started by two partners, six had three founders and four firms each had four founders. Partners were generally either friends or had previously worked together, although three founders did undertake a search for a suitable partner prior to start-up. Group founding might be expected to bring certain advantages, notably the creation of a more balanced management team, providing mutual psychological support and, as a result of the pooling of financial resources, permitting greater initial investment in the firm. Indeed, although only one in five of the surveyed firms with two or more founders combined youth with experience, almost half were based on a blend of managerial and skilled manual backgrounds. A number of other firms were founded by partners with complimentary managerial skills. Examples include firms started by a production manager and a sales manager, and by a production engineer, an accountant and a design engineer. Firms started by partnerships also used larger amounts of launch capital than those with single founders. However, partnerships are not necessarily permanent. The shedding of partners in small firms is quite common (Stanworth and Curran, 1973) and may frequently result

in the 'prime founder' regaining overall control of the business following the successful negotiation of the start-up process. The survey identified seven firms in which one or more of the original founders had left, generally following differences of opinion over the direction in which the business should go.

Turning to the founders themselves, a number of clear characteristics emerge. First, a considerable number of founders in South Hampshire had previous experience of starting a business. Forty (42%) had set up at least one new firm of their own in the past (20 in manufacturing and 20 in services or agriculture), and a further two had been responsible as employees for setting up a branch plant. In marked contrast, recent studies of new firm founders in Scotland and North West England have noted that most of the individuals concerned had no previous experience of such a venture (Cross, 1981; Lloyd, 1980). Past experience of new firm formation was particularly significant in group founder businesses: 63% of the firms set up by two or more founders had at least one partner who had formed his own business at some time in the past, compared with 27% of sole founders. As a result of having set up a business before the founders concerned are likely to have certain advantages over those with no previous involvement in new firm formation. Not only will they have had practical experience of the start-up process, but might also have a greater awareness of sources of finance and by possessing a 'track record' should be able to convince a bank manager that they are competent to run a business. The survey did confirm that firms in which at least one of the founders had previously set up a business encountered few difficulties in obtaining outside finance.

In the case of 12 firms, each with two or more founders (41% of firms in this category), one of the founders not only had previous experience of setting up a business but also continued to own and manage it and acted either in a part-time capacity or as a 'sleeping-partner' in the new firm. This could be regarded as a further category of new firms which are based on a blending of the expertize of the individual founders. One of the founders continued to own and manage another firm while at the same time provided the new enterprise with a source of business experience and the necessary 'track record' and security to obtain outside finance. The other founder(s) provided

the ideas and production skills. The founder or founders of a further eight new firms also owned and ran another business: five had been set up prior to establishing the surveyed firm while three had been formed subsequently. The consequence of these ownership tie-ups is to confuse any attempt to define 'independence' amongst new enterprises. Indeed, Johnson and Cathcart (1979a) dismiss the idea that there exists one 'correct' definition of independence and suggest instead that it may be more meaningful to talk in terms of a spectrum of independence. However, for their study of the Northern Region they defined new firms as "businesses, none of whose principal founders was at the time of formation, a director, shareholder, sole proprietor or partner in any other business" (Johnson and Cathcart, 1979a, 270). The evidence from South Hampshire suggests that if such a strict definition is adopted then a significant number of new businesses - including many of the more successful ones - will be overlooked.

A personal profile of new firm founders reveals that slightly over half (53%) were in the 30-45 age group when they formed their business. A further 32% were over 45 while the remaining 15% were under 30. New firm founders in their late forties and fifties are thus not as rare as studies in other regions have suggested (Lloyd, 1980; Cross, 1981). Indeed, because older founders have had greater time to accumulate capital and acquire business contacts they may prove to be more successful than their younger counterparts. Most new firm founders have achieved a relatively high level of educational attainment. Only 7% had a degree (including one with a Ph.D.), but 55% had pursued other forms of post-school training, in some cases while in the armed forces although more commonly by undertaking an engineering apprenticeship. The remaining 38% of founders had received no education since leaving school. In terms of the previous work history of new firm founders, there was a slight bias towards management, with 58% of founders having been employed in management positions prior to establishing their own firms. A further 38% of founders had been employed as skilled manual workers. However, over one-third of the management group had begun their working lives on the factory floor, and had thus achieved considerable upward social mobility before going into self-employment. The setting up of their own business could be interpreted as representing a way in which they were able to achieve

continued career progression, particularly if their prospects of further promotion were blocked, for example by their lack of 'paper' qualifications or because they were an 'outsider' in a family-run business. The majority of founders had manufacturing backgrounds, with three-quarters having worked predominantly or exclusively in manufacturing industry. There was also a clear tendency for founders to have derived their business experience in small firms: 61% had formerly been associated with firms employing less than 200 workers, while 36% had been employed in large firms (500 or more employees).

The vast majority (81%) of new firm founders had local origins in the sense that they had worked and lived in Hampshire immediately prior to establishing their new business. In only three cases (involving the setting up of two new firms) did the founders have to move house as a direct consequence of establishing their business in South Hampshire, although a further three - two 'sleeping partners' and one co-founder who manages his firm's second plant - live outside the county. The location decision for new manufacturing firms is therefore almost invariably reduced to a site selection problem within commuting distance of their founders' homes. However, only 56% of new firm founders had lived in Hampshire throughout their working lives, the remainder having moved into the area at some time since leaving school. Approximately 60% of moves into the county were undertaken primarily in order to obtain a new job (typically with another company rather than in the same organization) while one quarter were for family or personal reasons. The attractive residential environment was, in most cases, an important underlying consideration for choosing to live in Hampshire.

The most widely reported motivations for starting a business were to exploit a market opportunity which had been identified or presented itself (60%) and a desire for independence (40%) (founders could cite more than one reason). Financial ambition was a much less common reason for establishing a business, acknowledged by only 21% of founders (and rarely as the single most important factor). In addition, it was unusual for new firms to be formed for innovative reasons - only ten firms (19%) were based on an idea for a new product or process. Indeed, three-quarters of all founders planned simply to pursue lines of business in which they had direct

experience as an employee, utilizing their existing skills and expertise to offer the same or a similar product or service to that already on the market, although perhaps at a lower price or of superior quality. Not surprisingly then,for 85% of new firms, the founder's industrial experience and business contacts were responsible for identifying the initial market opening. Furthermore, almost half of all new firms in South Hampshire already had one or more customers lined up prior to start-up. In most cases these stemmed from the business contacts of the founders, although some gained an initial customer base by taking over an existing business, while others were promised orders from the firm in which the founder was previously an employee and from some of its customers. Consequently, only 28 firms (54%) had to establish a customer base from scratch on start-up, although in three cases this task was made easier by the fact that they were aiming to enter a market from which the founder's employing company had just withdrawn. Nevertheless, only six firms (11%) undertook a planned search for market opportunities prior to start up.

New firms in South Hampshire have thus largely been set up for positive and opportunistic reasons. However, external events - usually linked to the founder's position as an employee - played an important supporting role by pushing a considerable number of them into starting a new firm, even if this had been a long-held ambition. Redundancy (both compulsory and voluntary) was one such factor, although only three new firms were started for this reason. In ten cases feelings of frustration, caused by disagreements with superiors over future business policy, or arising from constraints on their decision-making freedom, or as a result of being passed over for promotion, helped to push founders into starting their own firms. On other occasions, the takeover of the founder's employing organization provided the final stimulus to leave because it created fears over job security or altered the general working environment. Approximately one third of founders who had previously been employed in management positions in large companies indicated that their "antagonism towards large organisations" (Scott, 1980, 23) played an important part in the decision to set up a business of their own. The lack of personal recognition for achievement, never being able to

see a project through from beginning to end, a dislike of the power which company accountants wielded, being at the mercy of head office and the lack of a 'community spirit' were all mentioned as unsatisfactory features of working in a big organization.

For many new firm founders, the need to obtain information and advice on running a business is often a necessary preliminary step, although with the proliferation of public and private sector agencies offering assistance, the potential businessman would not appear to be short of unbiased help. In South Hampshire the founders of 37 firms (71%) admitted that they needed to obtain information on various aspects of running a business prior to start-up. The remainder claimed to have had all the necessary information, usually because one or more of the founders had formed and run a business in the past. Book-keeping, tax, accountancy and legal matters were the main areas in which help was required (70%) although in 19% of cases the founders required information on technical matters. Over half of all new firm founders relied on their bank manager, accountant and solicitor for help and advice, thereby placing them in a position of considerable responsibility for new business development. Other sources of information included friends (14%), libraries (14%) and the government's small firms advisory services (8%). Founders requiring technical advice, either because they had managerial backgrounds or were pursuing a different line of business from that as an employee, generally relied on their own employees for information (16%).

In summary, the majority of new firm founders in South Hampshire place a high reliance on their independence, and emphasize their technical skills and their ability to offer a quality product or service. Most have established their new firm in a line of business in which they are very familiar. Customers have generally been gained through personal contact. In some cases, the decision to launch the business was only made after an opportunity to obtain some orders had arisen. These common characteristics clearly place most new firm founders in South Hampshire into what Smith (1967) has called the craftsman category and what Belbin (1980) refers to as the family businessman and the hiver-off tradesman types. In contrast, founders with a management pedigree, perhaps prompted to start their own firm because of a slowing down in their career prospects, and who adopt an active

approach towards searching for markets and products, defined by Smith (1967) as the opportunist, and what Belbin (1980) calls the wheeler-dealer businessman, are in a minority in South Hampshire. Finally, only a handful of founders correspond to the remaining two categories in Belbin's (1980) classification. The boffin-businessman, forming his own company to exploit an invention or scientific development, was in evidence in only four firms, while the enterprise-maker, a founder with a substantial track-record of creating new businesses, was identified in only three firms.

Finance and Investment

A number of authors (e.g. Lloyd, 1980; Johnson and Cathcart, 1979a) have noted that the start of a new business is frequently a long drawn-out affair. Often, firms are started on a part-time basis with one or more of the founders still in full-time employment, or operate from a bedroom, garage or garden hut before more formal premises are sought. Slightly over one-quarter of new firms in South Hampshire displayed at least some of these characteristics. For example, four firms were begun on a part-time basis (generally from home), while three others were set up with some of the founders working only on a part-time basis. Altogether nine firms (17%) initially traded from home and two others (4%) unofficially shared premises with another firm before seeking to lease industrial premises of their own.

A further feature of the new firm start-up process is the frequent transition from non-manufacturing to manufacturing at an early stage in the development of the business (Brinkley and Nicholson, 1979). Twelve of the surveyed firms in South Hampshire (23%) started on the basis of non-manufacturing (e.g. design, selling, repair, consultancy) and only subsequently undertook manufacturing. For six of these firms, the move into manufacturing represented a logical development of the business. In three cases non-manufacturing activities were undertaken specifically in order to generate sufficient capital to commence manufacturing. For the remaining three firms, at least one year of full-time research and development was necessary before manufacturing could commence. This non productive period was financed by selling and consultancy work. Brinkley and Nicholson (1979) note that the transition into manufacturing is a particularly common feature of

'successful' firms. This is also reflected in South Hampshire, at least in the sense that at the time of the interview the median size of the twelve firms which began in non-manufacturing was over twice that of all the firms in the survey, while their median turnover was over three times as large.

The formation of a new manufacturing enterprise cannot therefore necessarily be regarded as a discrete event. This has at least two implications. First, it may not be possible always to define the precise date of start-up unambiguously. This, in turn, complicates attempts to calculate regional and sub-regional rates of new firm formation over any specific time-period. Secondly, it creates problems in framing questions about launch capital requirements and in interpreting the responses. Bearing this caveat in mind, the median amount of start-up capital used was £6000. However, there was considerable variation around this amount (Figure 6). Six firms (11%) managed to begin with less than £500. A start from home, perhaps on a part-time basis, was one common way of minimizing launch capital requirements. Additional methods included receiving stage payments from customers, undertaking sub-contract work in which the customer provided the materials ('free issue') and fortuitous circumstances such as the offer of rent-free premises or machinery. At the other extreme, 13 firms (25%) had over £15,000 of launch capital, including three businesses with start-up funds in excess of £$^{1}/_{4}$ million.

The main sources of launch capital were personal savings and a bank loan or overdraft, used by 66% and 42% of firms respectively (multiple sources were possible). Just over half of the firms surveyed made use of only one source of start-up finance: 17 businesses (33%) were launched entirely with personal or family capital while eight (15%) relied exclusively on a bank loan. Of the remaining three firms which used only one source of launch capital, two were started with redundancy pay and the other with capital from a previous business. A total of eight new firms (15%) were at least partly financed by a founder's previous business, making it the third most significant source of launch capital.

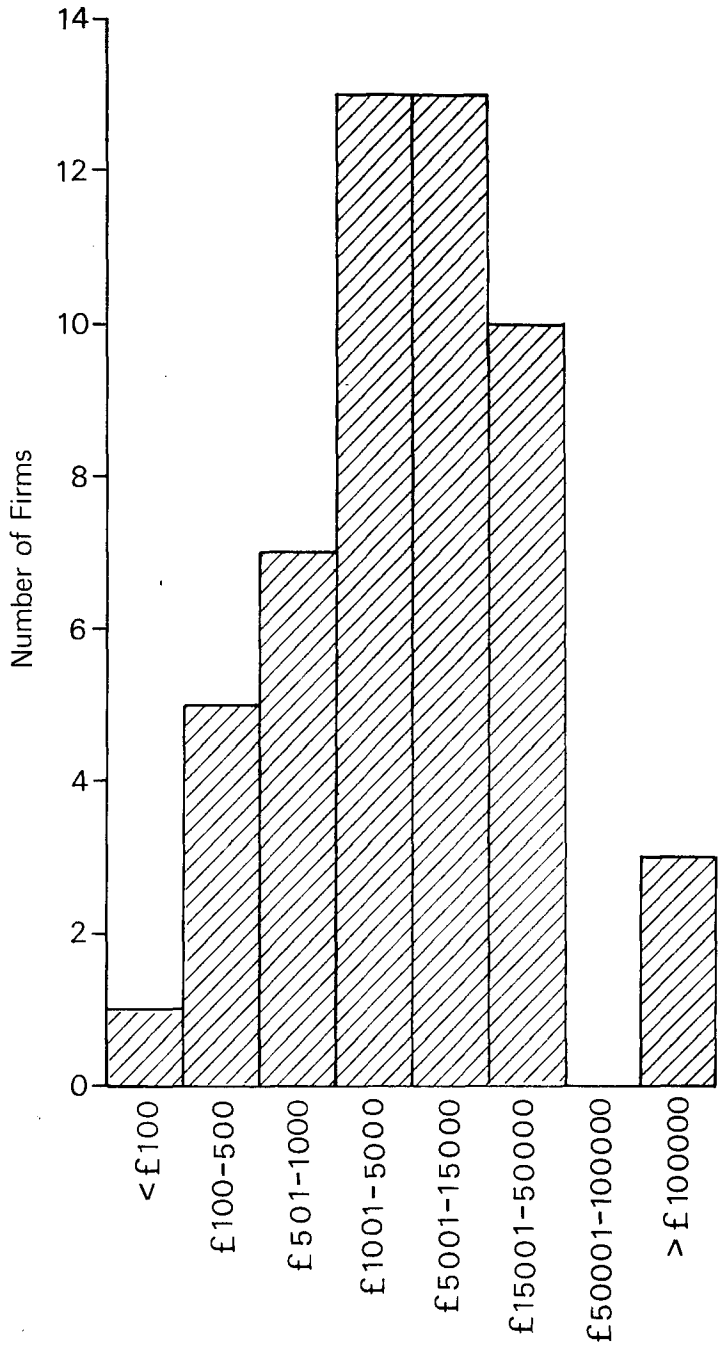


Figure 6 Launch Capital For New Manufacturing Enterprises

Except in a small number of cases, raising start-up capital was not a major problem for new firms in South Hampshire. Only 11 firms (21%) reported that they had experienced difficulties in obtaining start-up funds; all but one (which used a private investor) had been attempting to obtain bank finance. These difficulties were attributed by the founders to their lack of a 'track record', the unavailability of security and the unacceptable 'strings' which accompanied the offer of finance. Interestingly, by no means all of these businesses were marginal. Included within this group were three firms which subsequently grew very rapidly, achieving turnovers in excess of £½ million by 1980-81, and one which went on to gain a Queen's Award to Industry for Technological Achievement.

However, this relatively favourable assessment of the financial position of new firms at start-up requires qualification on two counts. First, over half of the firms surveyed deliberately used personal finance either as the only source of launch capital or as the most important element. Second, although approximately two-thirds of the firms which approached banks reported no difficulties in obtaining finance, the founders were generally required to provide some security. Home ownership therefore proved in many instances to be a vital factor in raising initial capital requirements because it could be used as security against a bank loan. Alternatively, although less common, founders could raise start-up capital by taking out a second mortgage to realize the value of their house. Other sources of security included stocks and shares and insurance policies. The consequences of new firm founders requiring to provide personal guarantees as security on a bank loan are to raise the personal risks involved in new business formation, and to invalidate the concept of limited liability for such firms (Binks, 1979).

A financial profile of new firms can only be presented in very limited and approximate terms because of the difficulty in obtaining reliable information. The easiest data to collect was on gross turnover; new firm founders did not regard this as sensitive or confidential and its interpretation is unambiguous. The median turnover of the 52 firms surveyed was £120,000. However, the mean turnover was almost £$^{1}/_{4}$ million, highlighting the fact that the

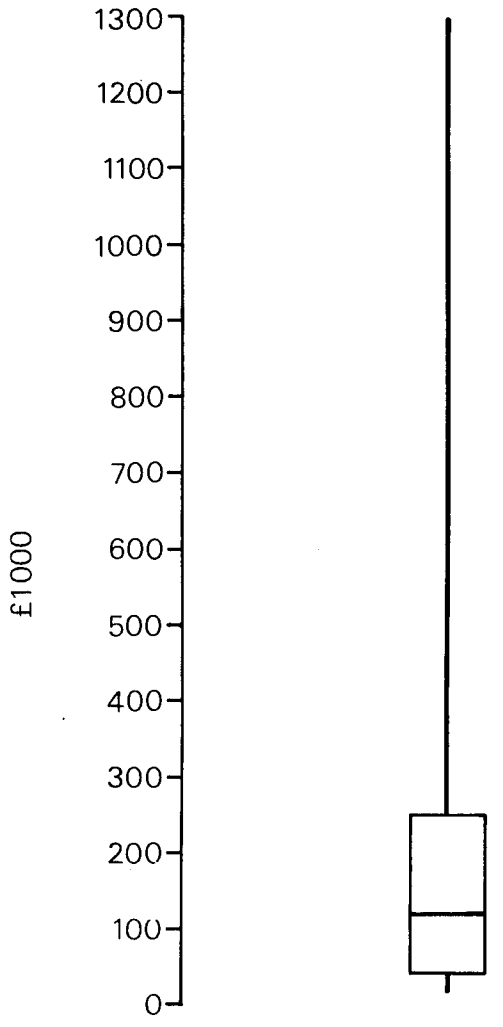


Figure 7 Gross Turnover in New Enterprises

distribution was skewed (Figure 7)*. Three-quarters of new firms were able to report a steady or even rapid increase in turnover since start-up, despite the unfavourable economic conditions. Indeed, six firms managed to achieve a turnover in excess of £$^{3}/_{4}$ million within less than five years, thereby confirming that a small proportion of new firms within any population do have the ability to grow very rapidly. However, eight firms (15%) reported that their turnover had peaked and was now declining, while a further five (10%) experienced a fluctuating level of trading. A characteristic shared by a number of these less successful firms was that they were either in the boat building industry or, as a result of their customer base, were closely allied to it. Consequently, they had been hit harder than most of the surveyed firms by the adverse economic conditions because of the severity of the recession in the boatbuilding industry.

A rough indication of the capitalization of new firms is provided by the size of their fixed assets, measured in terms of insured values at replacement cost. In the case of plant and equipment, one-third of firms valued their assets at between £5000 and £24,000, while a further 23% fell into the £25,000 to £74,000 category (Figure 8A). The vast majority of firms placed a high emphasis on owning their capital assets. Only three firms leased any of their machinery; in each case this accounted for approximately half of their total plant and equipment. However, because of limited capital resources, many new firms have only been able to afford to purchase secondhand equipment. Indeed, an average of 48% of plant and equipment in the possession of the surveyed firms was purchased secondhand, although this does conceal considerable variations. At one extreme, 15 firms (29%) had over three-quarters of secondhand plant and equipment, while at the other extreme eight firms (15%) had no secondhand plant and equipment and a further six (12%) had less

---

*Following Lloyd (1980), the data in figures 7, 10, 12 and 14 are presented by means of 'box and whisker' diagrams. This technique is derived from Tukey's (1977) Exploratory Data Analysis. It provides a graphic description of the broad features of a distribution, using the median, inter-quartile range and extreme point values. The 'boxes' provide an indication of the spread of the data by describing the inter-quartile range, the 'cross-bar' depicts the median value and the 'whiskers' mark the extreme values.

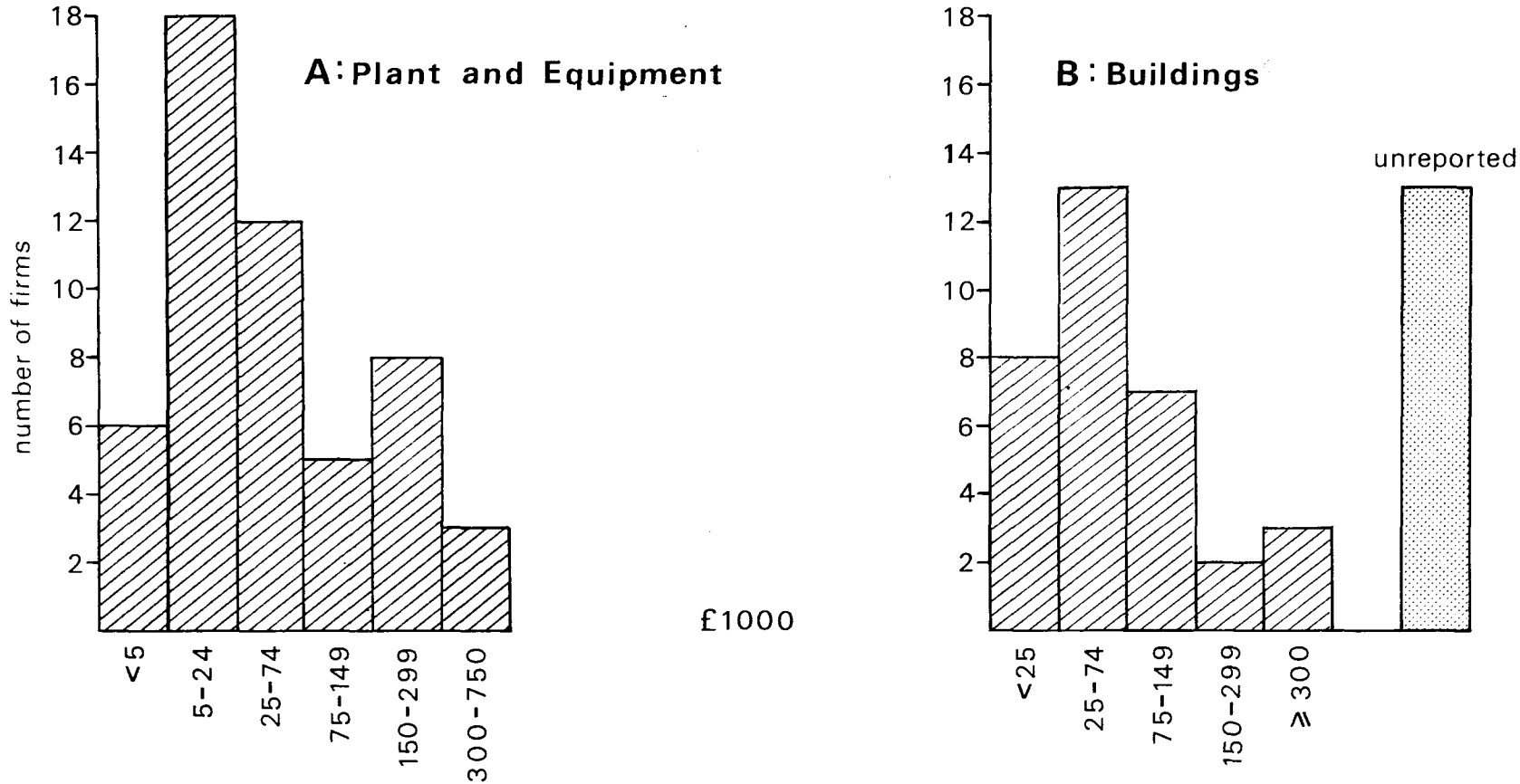


Figure 8 Value of Plant and Equipment and Buildings

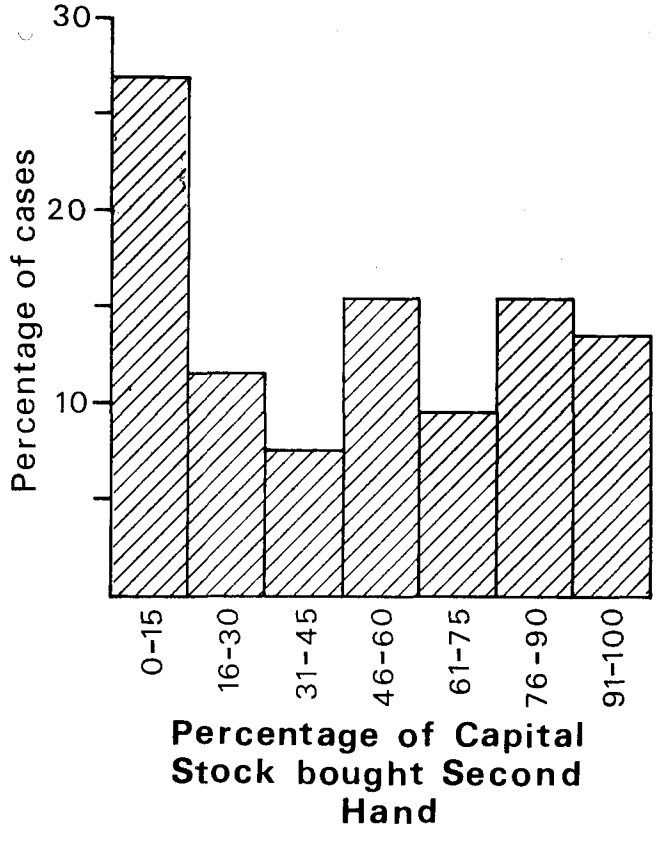


Figure 9 Second Hand Equipment in New Firms

than 10% secondhand (Figure 9). For firms able to provide information, the insured value of premises peaks at £25,000 to £74,000 (Figure 8B). However, since all but one of the firms are in rented or leased premises, their value does not represent an asset which belongs to the business.

Investment in the few years since start-up has been directed towards plant and equipment rather than buildings. Indeed, the median value of investment in buildings was just £700, with 21 firms (40%) making no expenditure at all under this heading (Figure 10). However, this low investment figure is not surprising in view of the fact that 51 of the 52 firms either rented or leased their premises. In contrast, the median investment figure in plant and equipment was £8000, and as the skewed distribution indicates, many firms invested substantially larger amounts (Figure 10). Retained profits was the most significant source of post start-up investment finance, utilized by 83% of businesses. Approximately one-quarter of firms were reluctant to borrow and so geared their investment as far as possible exclusively to their profitability. Personal and family capital, which had been the most important source of launch funds,was used by only 9 firms (17%) to finance post start-up investment. Bank loans, bank overdrafts and finance houses each figured prominently as sources of post start-up investment funds. Approximately two-thirds of firms used at least one of these external sources of finance, generally in conjunction with retained profits.

Problems in raising post start-up capital were confined to a small minority of firms. Most businesses had profits which they could reinvest, and because they also possessed some capital assets and a 'track record' financial institutions were generally willing - and in some cases positively anxious - to lend. Consequently, only 20% of the firms surveyed reported difficulties in raising finance and only seven firms were forced to defer or abandon investment plans. Problems in obtaining finance were again associated with the lack of a 'track record' and lack of security, although in some cases the level of orders was not sufficient to justify investment.

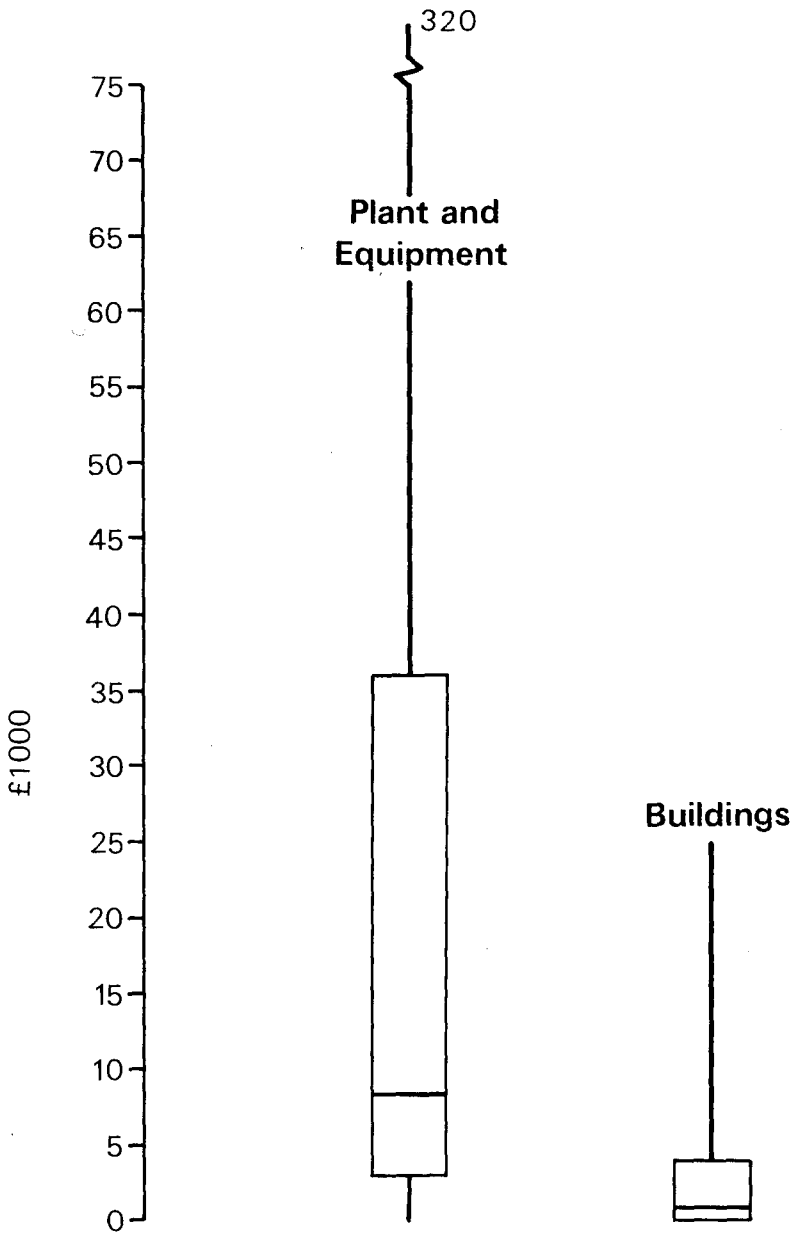


Figure 10 Capital Expenditure Since Start-up

Despite the unfavourable economic conditions, 29 firms (56%) reported that they had definite plans for future investment projects. Around two-thirds of these firms intended to purchase new machinery, either in order to meet potential demand or simply as part of a general programme of improvements. Almost half indicated that obtaining larger premises was under consideration because of increased demand, although some also wished to acquire freehold property. The intention to introduce a modified or new product or process was similarly reported by about half of the firms with definite investment plans. The main sources of finance were envisaged as being retained profits and bank loans (65% and 42% respectively of firms with definite investment plans). Only three firms considered using government sources (CoSIRA, NRDC). It was noticeable that by this stage in business development some of the most dynamic and rapidly growing firms were thinking about using medium-term loans, and in three cases a share issue was being considered as a means of raising capital.

Whereas lack of investment capital was only a problem for a small number of new firms in South Hampshire, a shortage of working capital was a much more common problem, experienced by 31 firms (60%). A variety of causes were mentioned, the most frequent (by 10 firms) being slow payment by customers. Many small firms appear to be trapped between suppliers who demand settlement within 30 days and customers - many of whom are large firms - who can take upwards of 60 days to pay*. Some firms admitted to adding a suppliment (usually 5%) to their invoices in order to offset the costs which they incur from this practice (Dungey, 1981), others deliberately avoided dealing with those big companies which had a reputation as slow payers, while two of the larger firms in the survey employed factors to overcome the potential cash flow problem created by slow payers. Other sources of cash flow difficulties were caused by a lack of orders (5 firms), bad debts (6 firms) and, amongst a number of the most successful new firms, rapid growth. Indeed, liquidity problems caused by overtrading is a common characteristic of fast growing new enterprises (Hutchinson, 1980).

*Dun and Bradstreet suggest that an outstanding debt of £1000 costs the supplier £43.34 per month (Williams and Glyn's Bank (1981) A Topical Look at Small Businesses).

Two main points emerge from this discussion. First, shortage of external finance, either for launch capital or post start-up investment has been a constraint for only a small minority of new firms in South Hampshire. However, it is worth noting that some of the most successful enterprises did encounter early problems in raising outside finance. A more significant factor in any under-capitalization of new firms has been the reluctance of certain founders to borrow money, especially where any kind of 'strings' were attached. Indeed, some founders were concerned that the ease with which new and young firms could obtain outside finance might erode the self-reliance of such enterprises and might also lead to an increase in weak, ill-equipped and misconceived ventures. The opposing view, voiced by the Wilson Committee, argues that an owner-manager who is struggling to develop and sell a product or service is likely to be handicapped rather than stimulated by unnecessary financial preoccupations (Wilson, 1979). Secondly, the survey evidence demonstrates that firms switch their sources of finance as they develop (Storey, 1981b); personal savings are mainly used for launch capital, perhaps in conjunction with a bank overdraft facility, whereas subsequent investment projects rely predominantly on retained profits, bank loans and finance houses.

Products and Customers: the Market Context

The industry types represented by the 52 new manufacturing firms in South Hampshire are very varied, and cover a total of 23 different minimum list headings (mlhs). However, the metals and engineering industries (orders 6, 7 and 12), which contain 22 firms, is the most significant sector for new business formation. Just seven new firms are in the high technology industries of electronics (mlhs 364 to 367) and instrument engineering, a further five are in shipbuilding and four are in the printing industry (Table 4; Appendix 1). Regardless of industry, new firms are primarily engaged in 'one-off' and small batch production (65% and 75% respectively - multiple answers were possible), frequently producing specifically to customers' requirements. Indeed, three-quarters of new firms undertook at least some sub-contract work, and for 32 firms (62%) this accounted for more than 75% of their total production. Approximately half of the surveyed enterprises also manufactured a product of their own,

Table 4. New Manufacturing Firms in South Hampshire, 1976-80: industrial structure

	number of firms	%	employment at survey date	%
Food and Drink	3	5.8	37	5.8
Chemicals	2	3.8	46	7.3
Metals and Engineering	22	42.3	182	28.8
Instrument Engineering	1	1.9	30	4.7
Electronics	6	11.5	145	22.9
Shipbuilding	5	7.6	46	7.3
Clothing	2	3.8	24	3.8
Timber, Furniture	2	3.8	25	3.9
Paper, Printing and Publishing	4	7.7	19	3.0
Other Manufacturing	3	5.8	53	8.4
Total	52		633	

although in only 18 cases (35%) did this account for most or all of their output.

New firms are not, in general, innovative. Despite the presence of many high technology industries in South Hampshire, only 10 firms (19%) claimed to have been set up on the basis of a new idea - seven for a product (including two firms manufacturing under licence) and three for a process (Table 5). Two of these firms gained official recognition for their contributions to innovation with a Design Council Award and a Queen's Award to Industry for Technological Achievement. Furthermore, only eight firms (15%) regarded themselves as leaders in their field, and only 16 firms (31%) undertook any 'in house' technical research. The majority of new firms in South Hampshire are therefore recipients rather than generators of new technology, relying mainly on the suppliers of materials and machinery, trade journals, and to a lesser extent on exhibitions, trade associations and standards authorities for information on recent technological developments.

Table 5. Reported 'New' Products or Processes Amongst Surveyed Firms

Inflatable Sailing Dingies
Hi-Fi Loudspeakers
Photographic Colour Filters - new process
Refurbishment of Extruders - new process
Miniature Electronic Circuits - new process
Components for Racing Cycles to own design
Ship's Compass System
Motor Cycle Fairings
PVC Windows and Doors
Coffee Machine

New firms in South Hampshire are primarily serving the manufacturing sector, and the electronics and engineering industries in particular. Almost three-quarters of new businesses had other manufacturing firms as customers; in contrast, only one-quarter of new businesses supplied non-manufacturing organizations, while one-third sold to the general public, either directly or via retailers and agents. In

addition, the firms were strongly tied to local and regional market outlets. Half sold upwards of 50% of their output within Hampshire, while 60% contracted more than three-quarters of their business within the South East Region. If Dorset and Wiltshire were also included, then the degree of local/regional market orientation would have been even greater. However, one-quarter of new firms also undertook some exporting, and for five firms - each engaged either in electronics or instrument engineering - this accounted for between 45% and 90% of their output. Many new firms were dependent on a small number of key customers; 15 enterprises (29%) relied on up to seven customers for over 75% of their business, and another six founders acknowledged that in the early stages of development their firms had also been dependent on just a handful of large customers. The dominant customer relationship was regarded with concern by most founders because it placed their firms in a vulnerable position, particularly during the recession when many large firms were reducing the amount of work which they sub-contracted. Nevertheless, a small group of firms considered that dealing with just a few large customers brought considerable advantages, including continuity of orders, a clear understanding of the quality of work required, reduced costs through simpler distribution and less sales effort, and the establishment of a personal relationship with the customer.

Most new firms in South Hampshire operated in very competitive market environments. Approximately two-thirds of firms identified at least ten competitors and over one-third of firms numbered their competitors in hundreds. However, 12 firms (23%) were able to point to three or fewer competing enterprises and a further two claimed that imports provided their only competition. New firms are primarily competing on the basis of their non-price strengths. When asked to rank their own perceptions of the competitive advantages of their firms the founders were almost unanimous in emphasising flexibility and service (96%) and the quality of their product or process (92%). In contrast, a price advantage was claimed by only 69% of firms, and only six firms (12%) considered this to be their single most important strength. Some firms pointed out that they were offering a 'tailor made' product which therefore carried a price premium, while

others commented that to offer the lowest price did not necessarily confer great commerical benefits. Factors which were perceived to place new enterprises in a disadvantageous competitive position were largely connected with their small size. These included limited production capability, the inability to cross-subsidize activities or undertake loss-leading jobs to gain future orders, and the preference of most customers to deal with large and established companies which are thought to be more 'secure', especially if the new firm presented a rundown appearance because of a lack of capital investment in new machinery and premises.

New firms generally expended only limited effort on marketing. Indeed, little more than one-third of firms had adopted an active marketing strategy, for example by advertizing in trade journals and the media, undertaking 'mail shots', 'knocking on doors' and approaching firms which had been identified by desk research as potential customers, while only eight firms (15%) employed the services of a marketing company. Rather, the majority of new firms have typically adopted a passive attitude towards marketing. In other words, they have accepted work which has come their way but have not deliberately looked for new customers. Many firms had been able to rely since start-up on repeat orders from their initial customers and gained new customers through personal recommendation and word of mouth. Only recently, perhaps three years since start-up had any of these firms taken the first tentative steps towards more active marketing. Of course, the limited amount of marketing undertaken by most new firms reflects the strong bias towards founders with technical rather than sales or marketing skills.

In summary, most new firms in South Hampshire serve local markets, undertake a minimum amount of marketing, function as 'satellites' of large companies and offer little in the way of innovation. However, these generalizations do overlook the relatively small number of firms which are innovative, aggresively pursue market opportunities and have identified and operate in lines of business with few competitors. Not surprisingly, this small group of enterprises has shown the most rapid rate of growth since start-up.

The Role of Premises

Over one-quarter of new firms in South Hampshire already had suitable premises in their possession prior to start-up, either from a previous business venture of one of the founders or as a result of acquiring a defunct company. These firms therefore did not need to search for premises. Firms which did require to obtain premises generally undertook a limited spatial search: 77% looked no further afield than the neighbourhood or local authority area in which the founder(s) lived or previously worked, and the founders of only two businesses looked for premises outside Hampshire. Founders who used informal methods of premises search, such as sounding out friends and business contacts and just driving round likely areas, slightly outnumbered those who adopted the more formal search procedures of contacting estate agents and following up newspaper advertisments. Most new enterprises wanted premises with less than 2000ft^2 of floorspace and at a low rent in order to minimize their early financial overheads. A number of firms were also reluctant to make long-term legal and financial commitments until the viability of the business was demonstrated and so did not want premises with long leases. Consequently, 18% of firms took out initial leases of less than one year (including some which occupied premises without a formal lease) and a further 30% had leases which were initially for between one and five years. In comparison, one-third of firms took out initial leases of between 11 and 25 years on their start-up premises (Figure 11). Furthermore, one-quarter of firms, mainly those which began on a part-time basis or as a marketing organization, were launched without first obtaining formal premises. Only when such firms were committed to full-time manufacturing operations did they attempt to find suitable accommodation.

Finding premises proved to be a problem for most new enterprises in South Hampshire. Some 70% of firms which required to search for premises reported that they had encountered difficulties (in only two cases because of restrictive requirements), and almost without exception the remainder considered that they had simply been lucky in finding suitable accommodation. The difficulty incurred by firms in finding suitable start-up premises is a function of three

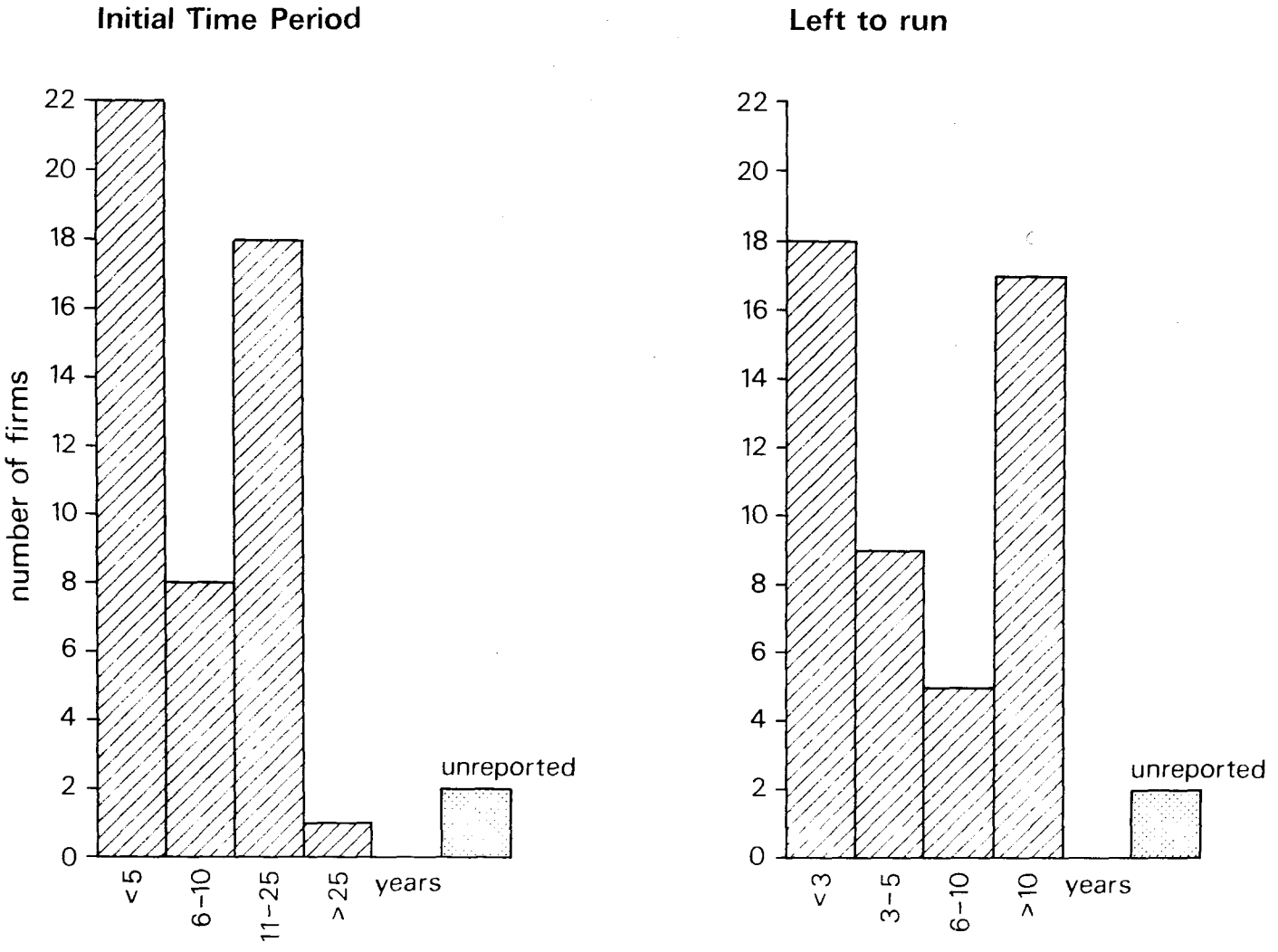


Figure 11 Length of Lease or Rental

main factors. First, South Hampshire was largely by-passed by industrial development in the 19th and early 20th centuries and therefore lacks a stock of old industrial premises available at low rents and on short leases to act as a 'seedbed'. Secondly, the more scenic parts of the sub-region have, at least until recently, been subject to strict anti-industry planning regulations, and this has prevented firms from occupying redundant farm buildings*. This limited stock of cheap industrial floorspace was felt most acutely in the prosperous years of 1976 and 1977 when many of the surveyed firms were launched. Thirdly, although a number of industrial estates have been constructed in recent years, the size of their 'small' units, the high rents and the length of lease have combined to render them unsuitable for many new firms. A further difficulty encountered by some new firms in their search for start-up premises was that many landlords required security in the form of personal guarantees and rent in advance. The effect of this is to increase launch capital requirements and tie-up funds which could otherwise be used to purchase plant and equipment.

By the date of the survey one-third of new firms in South Hampshire no longer occupied their initial premises. However, most remained within the same locality, 12 of the 17 firms moving less than 3 km from their start-up premises. In addition, six firms each operated from two sites, although only four used their second unit for manufacturing. With only one exception, the premises occupied by new firms was either rented or leased. Three firms leased their premises from the local authority, although only one occupied a council

---

*The case of Sarum Farm, near Winchester, provides one example of this. Michael Dodson was driven out of chicken farming in 1974 because of rising costs. He began a new business to manufacture timber mats and roadways on the same site, and turned over his redundant chicken huts for small business premises which at one stage provided 'unofficial' accommodation for 28 firms. However, all were forced to leave between 1977 and 1980 when Winchester City Council refused to give planning permission. Furthermore, despite the Department of Environment circular 22/80, which encourages planning authorities to take a more lenient attitude towards small businesses even when they do not conform to planning laws, Winchester City Council is now seeking to remove Dodson's timber mats and roadways business from the site, against the advice of its own planning officials (Financial Times, 2-2-82).

'starter unit'. The initial reluctance of many new firms to sign long leases is reflected in the fact that one-third of new enterprises had less than three years of their present leasing arrangement left to run, perhaps implying relocation in the near future. At the other extreme, a further one-third of firms each had leases with more than ten years left to run (Figure 11). Most new firms occupy small premises: the median size is 3100ft^2, and half of the firms occupy premises in the 1500ft^2 to 5000ft^2 range (Figure 12). However, there is considerable variation in the age of premises. Some 40% of firms operated from premises built since 1960, and over one in every five enterprises occupied premises which were less than five years old. In contrast, just under one quarter of firms occupied 19th century property (Figure 13). Length of lease and age of premises are linked. The majority of firms occupying pre-1914 property had short leases. This not only reflects the desire of many firms to minimize their commitments, as noted earlier, but also follows from the unwillingness of owners of older property to offer long leases in case the opportunity for redevelopment should arise. All but one of the firms in the newest premises had leases of at least ten years, the one exception being the firm in a local authority 'starter unit'. Private property companies prefer to offer long leases on their new premises; they fear that short leases would lead to a rapid turnover of tenants and periodic vacancies, thereby resulting in an increase in their administrative costs and a reduction in their rental income.

The premises occupied by new firms generally seemed to meet their immediate requirements. The founders' evaluations of their own premises indicated that they considered their security of tenure to be very good - only four firms (8%) seriously dissented from this view. Rent, physical condition and suitability of the premises were each thought to be satisfactory, although the founders of one in every five firms regarded the second and third attributes as being unfavourable. However, founders' generally considered that the least satisfactory features of their current premises were the lack of space for expansion and their unsuitability for planned future activities. Because of this, 11 firms (21%) had definite plants to relocate and a further 10

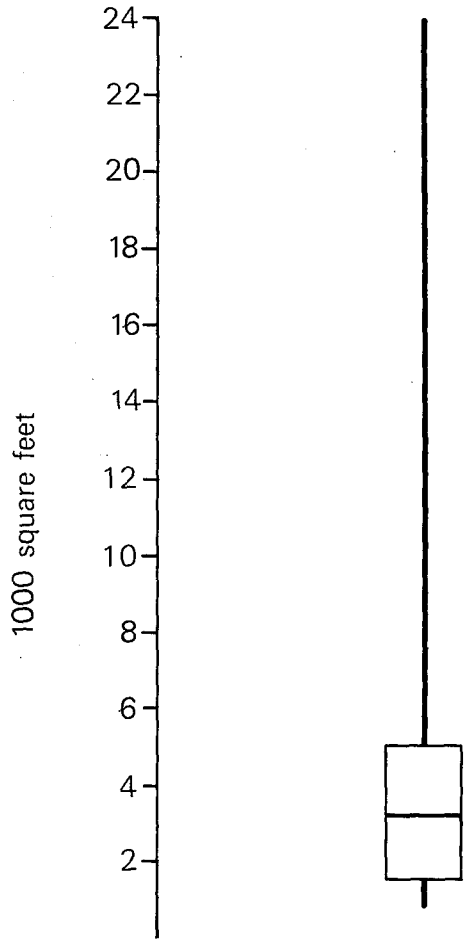


Figure 12 Floorspace Occupied by New Firms

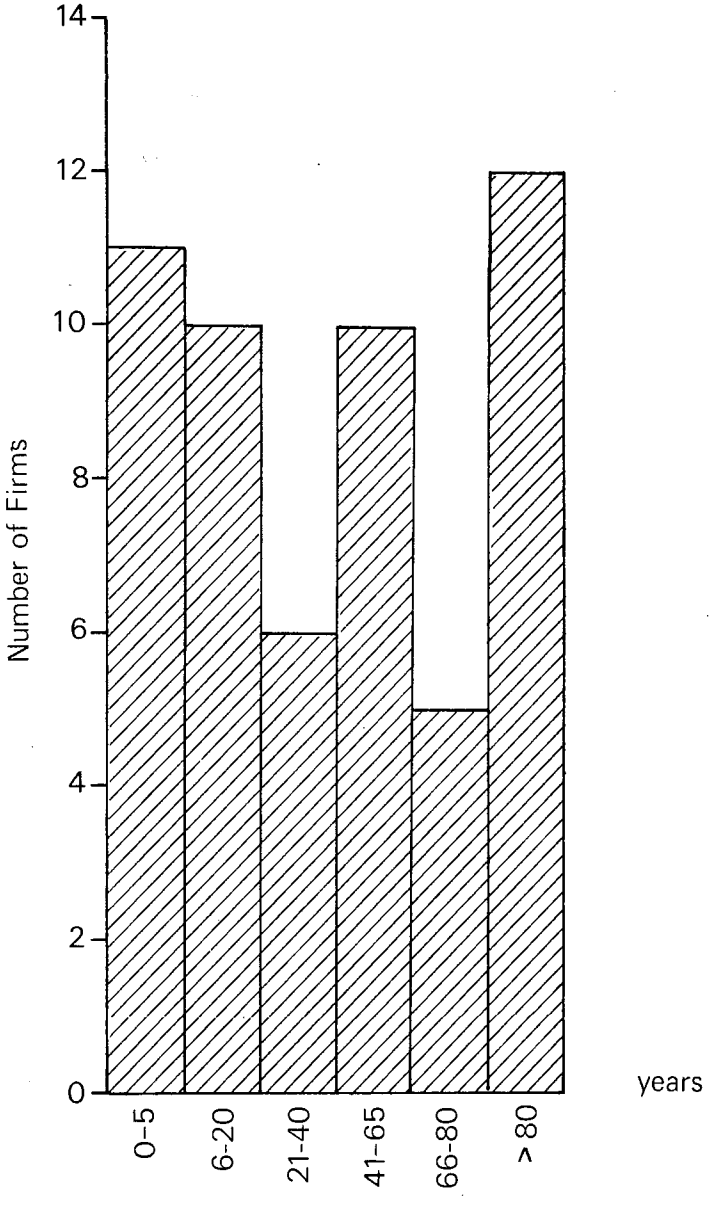


Figure 13 Age of Premises Occupied by New Firms

firms (19%) were seriously thinking about finding alternative premises. Most of these firms considered that their existing premises were too small; however, some presently in dilapidated premises wished to obtain other accommodation in order to improve both their 'image' and the working conditions of their employees, and three businesses planned to move in order to purchase their own premises. In the majority of cases the intention was to move only a short distance, remaining within the same neighbourhood or local authority area. Only three firms considered relocating outside South Hampshire. The surveyed firms were generally well satisfied with a location in South Hampshire: for example, access to markets and suppliers and the quality of the environment were each regarded as good, although some firms did comment on the difficulties of extending their market area into northern England and Scotland because of the lack of a motorway link between the Midlands and the South Coast. The only major source of dissatisfaction related to the lack of public transport provision. This was criticized by half of the firms and most vociferously by those located outside the urban areas where it was essential for employees to have their own means of transport.

In concluding this section, three points deserve to be emphasised. Firstly, finding suitable start-up premises was a major problem for many of the firms which were started in South Hampshire during the second half of the 1970s. However, because of the large number of plant closures and company liquidations during the recession, plus the high level of industrial estate construction, firms starting during the early 1980s should find it much easier to obtain start-up premises. Nevertheless, by no means every new firm either wants or is able to locate on an industrial estate. Consequently, there remains a need to renovate older industrial property in order to increase the supply of small industrial units which are available at low rent and with flexible rent or leasing arrangements. The success of a recent renovation scheme in Southampton (Shamrock Quay) confirms the demand by small firms for this type of property. Secondly, the survey highlighted the very localized nature of the new firm formation process. The initial location of the business is almost invariably close to the founder's home or former place of work,

and if relocation is necessary it generally occurs over a short distance. Indeed, the local business environment is crucial for the birth, survival and early development of most new firms since within this area the founder is able to use his friends, acquaintances and business contacts to obtain orders, recruit employees and find premises. Thirdly, because new firms generally operate from small premises which have limited space for expansion, frequently take out short leases, and often occupy premises in poor physical condition, a high degree of mobility is built into their early lives. A pre-requisite for any area which wishes to encourage its small business sector must therefore include the provision small factory units in a range of sizes to allow firms which outgrow their premises to find alternative accommodation locally.

Employment and the New Firm

At the time of the survey the median employment size of new firms in South Hampshire was just eight employees while the mean was 12.2 workers. Most new firms are therefore very small. However, the employment size distribution is positively skewed (Figure 14), as was the case with floorspace and turnover, indicating that significant differentials in the growth performance of new firms have emerged since start-up, with a small proportion managing to grow very rapidly. Nevertheless, the 52 firms together only created 633 jobs (including founders and part-time workers), with males accounting for over two-thirds of the total. The occupational distribution of jobs indicates that new firms have predominantly recruited skilled and semi-skilled workers, these groups comprising over half of the total workforce in the surveyed firms.

Table 6. Occupational Structure of New Firms

	males	column %	females	column %	Total	column %
Managerial	78	17.8	6	3.1	84	13.3
Professional/Technical	56	12.8	4	2.1	60	9.5
Clerical	4	0.9	56	28.9	60	9.5
Skilled Tradesmen	196	44.6	34	17.5	230	36.3
Semi-Skilled	51	11.6	73	37.6	124	19.6
Unskilled	54	12.3	21	10.8	75	11.8
Total	439		194		633	

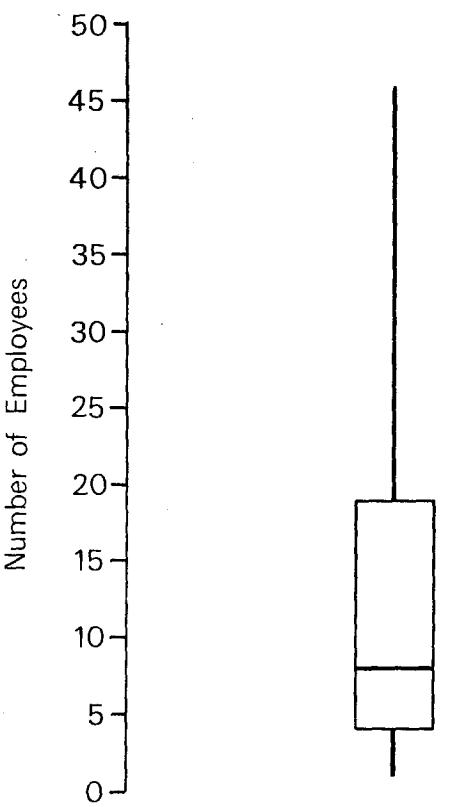


Figure 14 Employment in New Firms

New firms have mainly recruited their employees through informal channels, particularly in the case of skilled workers. Founders have generally employed friends, former workmates and workers recommended by their own employees, and in many cases their wives did the office administration. A number of firms also advertised in local newspapers and through the Job Centre in order to fill vacancies. Whereas newspaper advertising was considered to be quite effective, the majority of users were very critical of the Job Centre, claiming that it sent people who, either because of their work attitudes or lack of skills, were unsuitable. Nine firms, each in boatbuilding or engineering, used self-employed labour, exclusively in four cases. These workers undertook jobs at pre-negotiated rates. In turn, the firms were able to avoid the impact of labour legislation such as the Employment Protection Act and paying National Insurance contributions, minimized their overhead costs and maximized their flexibility, particularly where - as in the boatbuilding industry - the amount of work fluctuates throughout the year. Using self-employed labour also represents yet another way in which firms can minimize their commitments until the viability of the business is demonstrated.

Despite their limited contribution to employment, new firms have nevertheless expanded rapidly since start-up when they provided just 213 jobs, with the founders themselves accounting for 36% of this total. Only seven firms (13%) failed to add to their initial workforce. Over half of the surveyed firms reported difficulties in filling vacancies, particularly for skilled workers. The general shortage of such workers (Department of Employment, 1979) might be one reason for this, although it could quite conceivably also be a function of the wage rates offered by new firms. Difficulties in finding youngsters with the appropriate skills and motivation was also reported by some firms. A number also criticized the attitudes to work of their employees. However, recruitment problems and other labour difficulties have generally caused only minor inconvenience to the firms concerned, resulting in delays in delivery, turning away of some orders and increased costs because of the wastage of materials by less skilled workers. Only two firms reported that labour problems had seriously affected their operations.

A majority of new firms were optimistic about their future labour requirements, with two-thirds anticipating increases in the size of their workforce over the 1981 to 1983/4 period, primarily by recruiting additional skilled workers. However, further job creation by new firms is likely only to be modest, both in the short term and even over a longer period. A number of founders, mainly craftsmen type, were unwilling to recruit extra workers unless 'forced' by increasing demand because of the additional costs and risks and the extra effort involved in finding work to keep them occupied. Many other founders wished to carefully control and limit expansion so that they could continue to exercise their manual skills instead of performing exclusively in a managerial and administrative capacity, and in order to preserve the informal and flexible relationships and 'family atmosphere' of their firms. Furthermore, some of the fastest growing firms in the survey were moving towards capital rather than labour intensive operations. Hence, two-thirds of those firms which expected to expand their workforce envisaged modest increases of less than five employees, and only six firms (12%) expected to recruit more than ten extra workers during the next two to three years.

This evidence from South Hampshire therefore challenges the belief that new manufacturing firms can make a major contribution to job generation and the alleviation of unemployment, at least in the short term. The typical new enterprise is very small, it provides few unskilled jobs and its growth potential is limited, not least because of the reluctance of most new firm founders to allow their businesses to expand substantially. Moreover, new firms are certainly not immune from the trend towards increasing capital intensity of production. Only a very small proportion of new firms actually achieve rapid growth and become major employers; however, the performance of this very small group of successful enterprises appears to have coloured the popular image of the new firm.

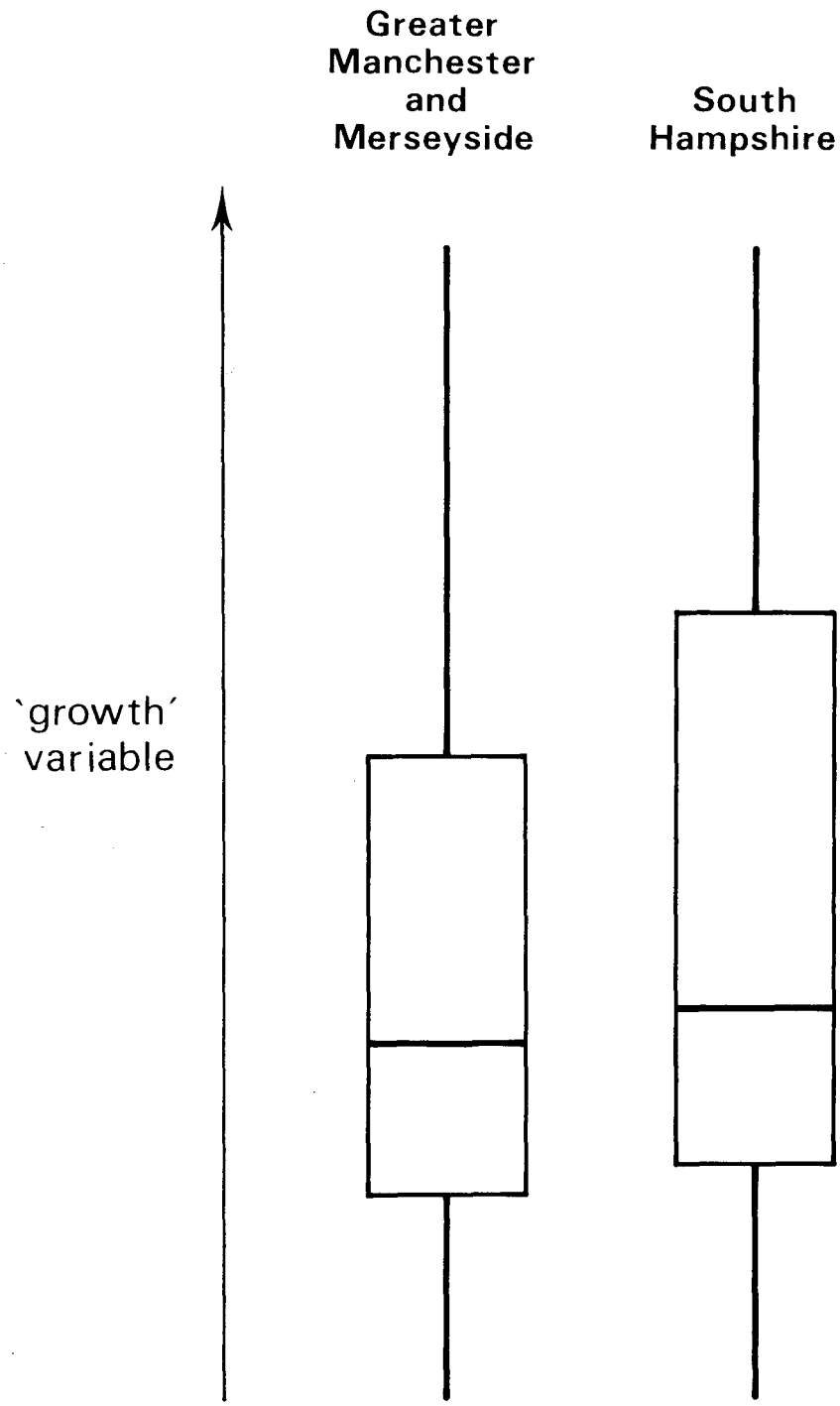
CONCLUSION

It was argued in the introduction that because of their social, economic and environmental characteristics, non-metropolitan areas in southern England, such as South Hampshire, were likely to display the highest rates of new manufacturing firm formation in the United Kingdom, and would also contain the largest number of innovative, progressive and rapidly expanding new enterprises. Certainly, as far as can be gauged from the imperfect data which are available, South Hampshire has had a relatively high rate of new manufacturing firm formation during the 1970s. However, the survey results indicate that the majority of new enterprises are very small, employing an average of just eight workers, occupying premises of around 3000ft^2 or less, and with a turnover of less than £150,000. Most are unsophisticated in terms of both technology and business methods, are largely geared to performing 'jobbing' activities, serve a localized market area, operate in very competitive market environments and are generally run on limited horizons. To a substantial degree, the characteristics of these businesses reflect the nature of their founders: most are craftsman-type entrepreneurs who are cautious and conservative in outlook, motivated by a desire to minimize their financial and contractual obligations and have limited ambitions and aspirations for their business. Only a minority of new enterprises - about 15% - are 'high fliers', founded either by the 'boffin-businessman' or, more commonly, by the opportunist-type of entrepreneur, and displaying rapid growth in turnover and employment, product development, innovation and the aggressive pursuit of business opprtunities.

New manufacturing firms in South Hampshire therefore do not come much closer than those in declining industrial areas such as the North East (Johnson and Catchcart, 1979a) and Manchester and Merseyside (Lloyd, 1980) to matching the idealized images of new enterprises which are currently prevalent in political circles. Indeed, contrasts between new firms in South Hampshire and in the North West conurbations are only apparent when the largest, and by implication the most successful firms in each area are examined. For example, comparing gross turnover indicates that whereas median

values are similar in both samples, the upper quartile and mean values of the South Hampshire firms are higher. If it is accepted that gross turnover values represent threshold 'markers' in the early stages of new firm development (Lloyd, 1980, 18) then it can be argued that whereas the majority of enterprises are similar in each area, the largest new businesses in South Hampshire have proceeded further along their development path and are consequently operating from somewhat higher thresholds than their equivalents in the North West conurbations. Similar contrasts are also apparent when other 'growth' variables such as capitalization and post start-up investment are compared. Figure 15 provides a diagramatic portrayal of this situation. Nevertheless, the tentative conclusion from this limited evidence is that relatively few contrasts exist between new firms in different regions, at least at this early stage in their 'life cycle'.

The policy implications which emerge from this study must also be tentative because of its limited scale. However, one clear policy-related conclusion does emerge: the main constraints on new firms in their formative years are largely linked to the operation of wider economic factors and are not primarily locational. Consequently, the scope for local economic initiatives is fairly limited. The only significant locational constraint is a shortage of suitable premises, particularly for start-up but also in situations where firms have outgrown their initial accommodation and require a larger unit nearby. Although this factor is a significant handicap in areas such as South Hampshire which, because of its economic history, has a relatively small stock of old industrial property, it is likely to be less of a restriction in industrial regions such as the North West and Yorkshire which possess a large stock of cheap industrial floorspace in vacant mills and factories. Recent government tax concessions on industrial property of less than 2500ft^2 has certainly resulted in a considerable increase in the construction of small factory units by the private sector. However, developers have tended to construct premises close to this maximum size; units of less than 1500ft^2 therefore remain in relatively short supply. Furthermore, new industrial premises tend to have high rents and rates and are therefore beyond the financial reach of a large proportion of new



The box-and-whisker technique presents the broad features of new enterprises : the 'boxes' describe the inter-quartile range, the 'cross-bar' depicts the median while the 'whiskers' mark the extreme values.

Figure 15 Regional Contrasts in the Performance of New Manufacturing Enterprises

and young enterprises. In addition, many small units are designed for dual manufacturing/warehousing functions rather than being purpose-built for manufacturing. Consequently, they generally have high ceilings and can even lack internal fittings: tenants therefore incur additional costs, for example by having to heat unused space and because of the need to install artificial ceilings and partitions. Finally, most recently constructed small industrial premises have been built on industrial estates. However, many small firms are reluctant to locate on an industrial estate because of their frequent situation at considerable distances from residential areas, making recruitment difficult (especially of females), the lack of nearby employee amenities such as shops and cafes, and the risk of labour poaching by other firms on the estate. Initiatives to overcome such premises-induced constraints might therefore include rent subsidies and the provision of flexible tenurial arrangements on new units. In addition, local authorities could encourage the construction of considerably more small factory units on infill sites in existing industrial and commercial areas, and promote further schemes to renovate and convert old industrial property into small workshop units.

Finance is a much more significant constraint for new firms. The costs of external finance are generally considered to be higher for small firms than for large firms, even when the greater administrative costs and commercial risks of the lender are taken into account (Wilson, 1978). In addition, corporation tax hampers the efforts of small firms to accumulate funds for reinvestment (Bannock, 1981a). Investment incentives, a lowering of interest rates and genuine reductions in corporation tax might therefore improve the liquidity of small firms and increase their ability to reinvest. Of course, this approach does have risks: both deserving and undeserving firms will benefit, and it might result in an increase in consumption by shareholders rather than higher investment (Mitchell, 1980). According to the firms in the South Hampshire survey, the simplest but possibly the most effective form of financial assistance would be to remove those cost burdens which hit small businesses harder than the rest of the economic community. For example, rates which are based on property values

seem likely to form a higher proportion of total costs in small businesses than in large firms. Similarly, the National Insurance employers' surcharge weighs more heavily on small firms because they tend to be more labour intensive (Bannock, 1981a). Another source of unfair discrimination against small firms is the cost of complying with government regulations (for example on buildings), which have generally been framed with large firms in mind. Government proposals that employers should pay the first six weeks sick pay of their employees and reimburse themselves by deducting any payments from their monthly PAYE returns will similarly represent a more onerous duty for small firms than for their larger counterparts. Some government scheme to underwrite overdrafts, perhaps running on similar lines to the current Loan Guarantee Scheme, might also be appropriate in view of the preference of most small businesses for overdrafts rather than loans, even for what effectively amounts to longer term finance, because of their greater flexibility and generally lower cost (Wilson, 1979). Finally, it may be that any shortage of finance is, at least in part, a function of the very localized search of most new firm founders for funds. An extension of 'marriage bureau' schemes to bring together potential investors and entrepreneurs might therefore be beneficial, and could be organized on a local basis.

Perhaps the most positive way in which the economic constraints on new and young firms can be removed is to help them to secure more orders. Indeed, this was the most frequently mentioned form of government assistance requested by firms in the South Hampshire survey. At its simplest level, macro-economic changes to manipulate demand, such as a reduction in VAT and interest rates and an increase in public sector spending (for example by the Ministry of Defence) will stimulate both consumer and industrial demand. Because relatively few small firms serve sources of final demand, much of the initial increased output will occur in the corporate sector. However, a large proportion of small manufacturing firms act as subcontractors and component suppliers to large companies: any improvement in the demand situation of the corporate sector will therefore quickly permeate down to the

small firm sector. In this respect it is clear that a 'small firms policy' cannot work in isolation from events elsewhere in the economy. Small firms can also be assisted by giving them a greater share of public sector contracts. At present, public sector purchasing discriminates against small firms. Consequently, there is a need both to change the attitudes of purchasing officers and also to design more enlightened public sector purchasing policies, such as breaking down large orders into smaller lots, or even to follow the American practice whereby Federal agencies are required by law to purchase a proportion of their requirements from small businesses. A third way in which small firms can be assisted in obtaining new orders is simply by providing them with information about sources of demand in Britain and overseas in order to compensate for their lack of surplus management time to engage in market searches. Central government is probably best positioned to bring information on export opportunities to the attention of small firms, although local and regional trade delegations could also play a role. Information on local market opportunities is likely to be provided most effectively by local authorities and other local organizations such as enterprise agencies, universities and higher education establishments, for example by compiling local supplier and capacity registers and organizing 'can you make it' exhibitions. Where the result is simply to replace one small firm supplier by another, then the outcome may simply be a zero-sum game, but if such schemes were designed in order that customers could use local instead of foreign suppliers then the small firm, the customer and the national economy will all benefit. Local agencies could similarly act as clearing houses for information on new technology, new products and joint venture and licensing opportunities.

In short, the main thrust of policy must be to remove, or at least offset, sources of discrimination for new and young firms, primarily through central government action although supported by local initiatives. However, it has been argued that nationally applied policies to assist the small firm sector will have their greatest impact in southern England rather than in the depressed north and therefore runs the risk of being regionally divisive (Storey, 1980).

Indeed, although few differences were observed between new firms in South Hampshire and those in Greater Manchester and Merseyside, a case can certainly be made for expecting a considerable divergence in performance between small firms in different regions as they proceed along their development path. Specifically, it can be hypothesised that young firms in southern areas such as South Hampshire are better able to diversify their activities, evolve their own proprietory products and widen both their sectoral and geographical market area, thereby achieving higher thresholds of operation (Mason, 1982b). It is to a detailed examination of this issue that further research must therefore be directed.

REFERENCES

Bannock, G (1976) The Smaller Business in Britain and Germany (London, Anglo-German Foundation)

Bannock, G (1981a) The Economics of Small Firms: return from the wilderness (London, Blackwell)

Bannock, G (1981b) The Clearing Banks and small firms, Lloyds Bank Review, 142, 15-25

Belbin, R M (1980) Launching new enterprises: some fresh initiatives for tackling unemployment, Employment Gazette, 83, 362-365

Binks, M (1979) Finance for expansion in the small firm, Lloyds Bank Review, 134, 33-45

Birch, D L (1979) The Job Generation Process (Cambridge: Mass, MIT Program on Neighbourhood Change)

Bolton, J (1971) Report of the Committee of Inquiry on Small Firms (London, HMSO) cmnd 4811

Brinkley, I and Nicholson, B (1979) New manufacturing enterprises: entry mechanisms, definitions and monitoring problems, Centre for Environmental Studies, WN 542

Cameron, G C (1980) The inner city: new plant incubator? in A Evans and D Eversley (eds) The Inner City: Employment and Industry (London, Heinemann), 351-366

Cross, M (1981) New Firm Formation and Regional Development (Farnborough, Gower)

Department of Employment (1979) Skill shortages in British industry, Department of Employment Gazette, 87, 433-438

Dungey, D A (1981) A study of independent manufacturing firms in the Southampton Region, B.Sc dissertation, Department of Geography, University of Southampton

Ford, P (1934) Work and Wealth in a Modern Port (London, Allen and Unwin)

Fothergill, S and Cudgin, G (1979) The Job Generation Process in Britain, Centre for Environmental Studies, RS 32

Ganguly, A (1982) Births and deaths of firms in the UK in 1980, British Business, 7, 204-207

Goddard, J B (1978) Urban and regional systems, Progress in Human Geography, 2, 309-317

Gould, P R and White, R R (1968) The mental maps of British school-leavers, Regional Studies, 2, 161-182

Gudgin, G H (1978) Industrial Location Processes and Regional Employment Growth (Farnborough, Saxon House)

Gudgin, G, Brunskill, I and Fothergill, S (1979) New manufacturing firms in regional employment growth, Centre for Environmental Studies, RS 39

Hannah, L and Kay, J A (1977) Concentration in Modern Industry (London, Macmillan)

Hart, P E and Clarke, R (1980) Concentration in British Industry 1935-75 (London, Cambridge University Press)

Hutchinson, P (1980) The financing of small rapid-growth firms up to flotation, in A Gibb and T Webb (eds) Policy Issues in Small Business Research (Farnborough, Saxon House) 77-89

Johnson, P (1978) Policies towards small firms: time for caution? Lloyds Bank Review, 129, 1-11

Johnson, P S and Cathcart, D G (1979a) New manufacturing firms and regional development: some evidence from the Northern Region, Regional Studies, 13, 269-280

Johnson, P S and Cathcart, D G (1979b) The founders of new manufacturing firms: a note on the size of their 'incubator' plants, Journal of Industrial Economics, 28, 219-224

Keeble, D (1978) Industrial decline in the inner city and conurbation, Transactions of the Institute of British Geographers, ns 3, 101-114

Lloyd, P E (1980) New manufacturing enterprises in Greater Manchester and Merseyside, School of Geography, University of Manchester, North West Industry Research Unit, WP 10

Lloyd, P E and Dicken, P (1982a) Industrial Change: Local Manufacturing Firms in Manchester and Merseyside (Department of the Environment, Inner Cities Research Programme No 6)

Lloyd, P E and Dicken, P (1982b) The components of change in metropolitan areas: events in their corporate context, in J B Goddard (ed) The Urban and Regional Transformation of Britain (London, Methuen), forthcoming

Mason, C M (1981a) Recent trends in manufacturing employment, in Mason,C M and Witherick, M E (eds) Dimensions of Change in a Growth Area: Southampton since 1960 (Aldershot, Gower) 52-74

Mason, C M (1981b) The Creation of an Establishment Databank for South Hampshire: Final Report, SSRC, Report HR 6796

Mason, C M (1982a) Foreign-owned manufacturing firms in the United Kingdom: some evidence from South Hampshire, Area, 7-17

Mason, C M (1982b) New manufacturing firms in South Hampshire: some preliminary survey evidence, Paper to Annual Conference of the Institute of British Geographers, University of Southampton

Meeks, G (1977) Disappointing Marriage: a study of gains from merger (London, Cambridge University Press)

Mitchell, J E (1980) Small firms: a critique, Three Banks Review, 126, 50-61

Nicholson, B M, Brinkley, I and Evans, A W (1981) The role of the inner city in the development of manufacturing industry, Urban Studies, 18, 57-71

Prais, S J (1976) The Evolution of Giant Firms in Britain (London, Cambridge University Press)

Riley, R C and Smith, J L (1981) Industrialization in naval ports: the Portsmouth case, in Hoyle, B S and Pinder, D A (eds) Cityport Industrialization and Regional Development: spatial analysis and planning strategies (Oxford, Pergammon), 133-150

Robinson, J F F and Storey, D J (1981) Employment change in manufacturing industry in Cleveland 1965-76, Regional Studies, 15, 161-172

Scott, M (1980) Independence and the flight from large scale: some sociological factors in the founding process, in A Gibb and T Webb (eds) Policy Issues in Small Business Research (Farnborough, Saxon House), 15-33

Short, J R (1978) Residential mobility, Progress in Human Geography, 2, 419-447

Smith, N R (1967) The Entrepreneur and His Firm: the relationship between type of man and type of company (Michegan State University, Graduate School of Business Administration)

Stanworth, M J K and Curran, J (1973) Management Motivation in the the Smaller Business (Epping, Gower)

Storey, D J (1980) Job generation and small firm policy, Centre for Environmental Studies, PS 11

Storey, D J (1981a) New firm formation, employment change and the small firm: the case of Cleveland County, Urban Studies, 18, 335-345

Storey, D J (1981b) Finance for the new firm, University of Newcastle, Centre for Urban and Regional Studies, DP 36

Thwaites, A T (1978) Technological change, mobile plants and regional development, Regional Studies, 12, 445-461

Tukey, J (1977) Exploratory Data Analysis (Reading: Mass, Addison-Wealey)

Wilson, J S G (1978) The Wilson Committee on 'Financing Industry and Trade': the position to date, Three Banks Review, 118, 3-27

Wilson, H (1979) The Financing of Small Firms: interim report of the committee to review the functioning of financial institutions (London, HMSO) cmnd 7503

Appendix 1. Processes and Products of New Manufacturing Firms

Printing (general office stationary)
Precision component manufacture
Motor cycle fairings and panniers
Precision sheet metal fabrication
PVC windows and doors
Welding and metalwork (for ship-repair industry)
Wagon wheel manufacture
Precision engineering - mould tools
Sheet metal work
GRP work boats
GRP moulds and plugs for boatbuilding industry
Clothing - ladies dresses
Clothing - ladies blouses and dresses
Fabrication, welding and sheet metal work
Aircraft maintenance, construction and modification
Plugs, moulds and tools for boatbuilding industry
Joinery (manufacture of doors, windows and staircases)
Tools for the manufacture of printed circuit boards
Tool making, mould making and production machinery (for the engineering industry)
Metal fabrication and welding
Electronic newsscanner*
Light engineering - milling and turning
Sheet metal work (electronics and aircraft industry)
Beer
Silicone extruder and extruder screw manufacture and refurbishment*
Metal fabrication
Miniature electronic circuits*
Components for racing cycles
Ships compass systems
Precision engineering, mould and pressed tools
Ice-cube manufacture
Fire, smoke and heat detectors*
Telecommunication test equipment and message switching equipment
Precision engineering
Plastic injection moulding

Appendix 1 (continued)

Chocolate confectionary
Sheet metal work (casings for electronics industry)
General and commercial printing
Inflatable dingies, windsurfers and pipe-stoppers*
Hi-fi loudspeakers*
Photographic filters*
Shotblasting and corrosion protection treatment
Welding and wrought-iron work
Stainless steel yacht fittings, staircases and hospital equipment
Pressure sealings (made from asbestos and plastics)
Precision engineering
Contract packing, hygiene packing, formulation (chemicals, pharmaceuticals)
Colour printing
Silk screen printing (on aluminium and plastic); electronic keyboard*
Polythene film on roll
Structural engineering
Moulds for boat hulls and decks

*Firms claiming to be leaders in their field

University of Southampton Department of Geography

DISCUSSION PAPER SERIES

1	The elimination of under-estimation in nearest neighbour analysis	D A Pinder	1978
2	Percentages, ratios and inbuilt relationships in geographical research: an overview and bibliography	K Jones	1978
3	An evaluation of bed material sampling techniques for use in mixed sand and gravel-bed streams	B Gomez	1979
4	Industrial promotion by local and regional authorities: the effectiveness of advertising material	C M Mason	1979
5	Planning for remote rural areas: the Swiss experience	D Grafton	1980
6	A consideration of the use of newspapers as a source of data for geographical research	R Williams	1980
7	Foreign-owned plants and regional policy in the United Kingdom: some evidence from South Hampshire	C M Mason	1980
8	Territorial justice and the allocation of suburban leisure services: a case study of Havant, Hampshire	G M Moon	1981
9	The spatial variation of rainfall and its importance in urban hydrology: a case study of three small urban catchments	J M Buttle	1981
10	A general theory of development	E Biagini	1981
11	Channelization in England and Wales	A Brookes	1982
12	The management of industrial change: structural policies in West Germany	M S Husain	1982
13	New manufacturing firms in South Hampshire: survey results	C M Mason	1982

Discussion Papers 1 to 12 inclusive are priced at £0.50 and no 13 at £0.75. Copies can be obtained from:

The Librarian,
Geography Department,
The University,
Southampton, SO9 5NH.

Copies of Dimensions of Change in a Growth Area: Southampton since 1960, edited by C M Mason and M E Witherick (1981), are also available at £5.00 (or £6.50 including postage and packing).