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**Attracting New Office Employers to the Regional  
City – Some Ideas from Adelaide**

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**ABSTRACT:**

The new world of knowledge work has emerged somewhat stealthily, but when figures for the last 10 years are examined, it can be seen that it has had profound effects on office employment in the smaller regional cities. The big employers of office workers, such as national government, the banks and insurance companies have centralised their administrations in the larger cities. Information technology has reduced employment opportunities in the more mundane clerical areas, and those opportunities have largely been lost in the non-head office cities. On the other hand, information technology has enabled knowledge work to be done almost anywhere, leading to potential opportunities for regional cities. In particular, call centres, back office functions and technology-related businesses have become the new big employers on which governments anxious to create local jobs have focused.

A study of the nature of the new office employment and the attractiveness of a central city location in the face of the suburban and work from home alternatives was carried out by the author in 1999/2000. Surveys, interviews and focus groups were used to ascertain what a regional city's governments and property industry might do to attract both the large new businesses and the small office-based businesses that, in aggregate, employ most people.

The results showed that there is a range of measures that can be taken to meet the new market realities, apart from bribing firms with taxpayers' money. As tends to be the way of these things, there is no "magic bullet", but rather an accumulation of small ideas. However, the paper does canvass the possibility of transplanting the suburban office/technology park to the city.

## **INTRODUCTION**

This paper is the culmination of a series of discussions held early in 1999 by the Property Council of Australia's South Australian Divisional Research Committee. The Committee had noted an apparent decline in the number of office workers in the Adelaide Central Business District, being manifested in the very high vacancy rate of office buildings that were not prime or A grade.

The Corporation of the City of Adelaide, which was represented on the Committee, was engaged in planning a number of initiatives to attract emerging business sectors, particularly those employing knowledge workers, to the Adelaide CBD. The author was also a committee member with research interests in the changing nature of office work and the locational and built-form implications of such change.

The research covered locational preferences and the reasons that people gave for them, particularly in assessing the relative attractiveness of the Central Business District when compared with the suburbs. It was originally hypothesised that there had been a “flight to the suburbs”, resulting in a decline in CBD office employment. In the event, there was very little evidence found of this. In fact, the researchers had to abandon the idea of interviewing principals of firms that had migrated to the suburbs, because there were hardly any. In interviews with CBD and suburban firms, it appeared that each was reasonably happy with their lot, for perfectly good reasons, and not a lot was to be gained by trying to attract typical small firms located in the inner suburbs into the CBD. The emphasis of this paper is therefore on the factors that were found that might attract the newer firms based on knowledge work to the Adelaide CBD. Some interesting findings were made, which sparked ideas that are canvassed in this paper.

## **METHODOLOGY**

The research methodologies were:

- telephone interviews of samples of office space users in the Adelaide CBD and suburbs;
- personal interviews with decision-makers and younger mid-level staff of large space users in knowledge industries located in the Adelaide CBD and Adelaide suburbs;
- personal interviews with key leasing agents working in the Adelaide CBD.

Telephone interviews with decision-makers in 50 office-based businesses located in suburban Adelaide were carried out in late 1999 by the University of South Australia's Marketing Science Centre. Although the sample was randomly selected, the population from which it was selected was deliberately biased towards those industries that were judged to have growth potential in Adelaide. That judgment was based on the literature on changes in the nature of work, but more importantly on those office-based private industries that had shown an upward trend in employment (City of Adelaide, 1999). These were primarily Business Consulting Services, Finance and Investment Services and Computing and IT Services. The findings have validity for the selected population, but cannot necessarily be projected onto the suburban office population at large.

Telephone interviews were also carried out with decision-makers in 50 office-based businesses located within the Adelaide CBD in early 2000. Apart from location, the selection criteria were identical to those for the suburban population. Where appropriate, identical questions were asked in order to facilitate comparison. For both samples, government and semi-government organisations were excluded.

At the beginning of the project, it was intended to sample firms that had moved from the CBD to suburban locations over the last five or so years. Only a handful of such firms were identified. This is an interesting finding in itself, as it eliminates one often-cited reason for the decline in the office-worker population of the Adelaide CBD.

Fifteen in-depth interviews were undertaken with decision-makers, such as facilities managers, in both CBD- and suburban-based medium to large sized organisations. The in-depth interviews with the suburban-located organisations also explored the interest in a Technology Park-type complex within the City of Adelaide.

Where possible, group interviews were also conducted at these locations to explore any differences between primary decision-makers and other staff members at a middle-managerial level.

Informal interviews were conducted with senior leasing personnel operating within the Adelaide CBD, to understand their perception of clients' decision-making processes.

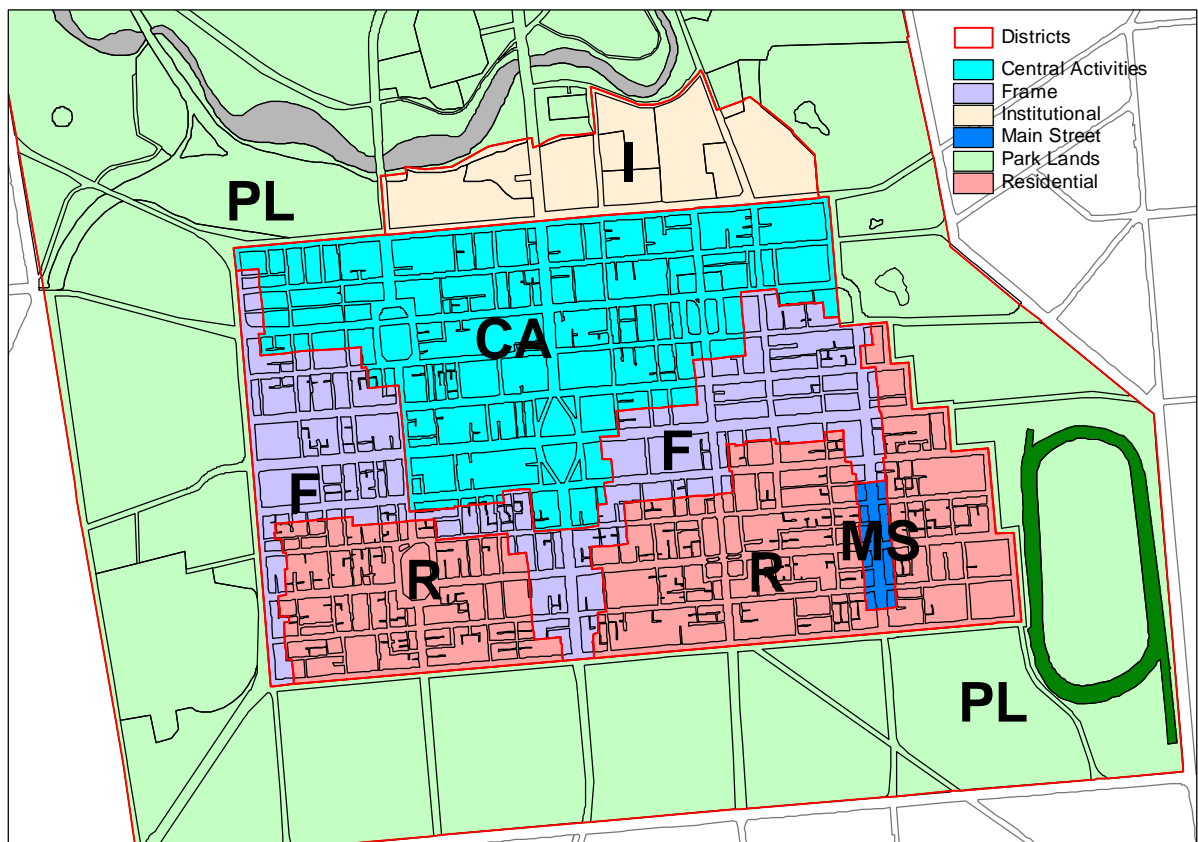
Sample data were analysed using descriptive statistics, supplemented by comparative statistical verification where it was important to determine whether there was a significant difference between CBD- and suburban-based decision-makers' attitudes. Interview responses were merely reported, and are included in the discussion where appropriate.

## **BACKGROUND**

Any discussion about attracting or retaining residential, retail, industrial and commercial activity to Adelaide must occur at three levels.

Firstly, there is the attractiveness or otherwise of the greater metropolitan area in relation to other cities in Australia and, to a lesser but increasing extent, the rest of the world. The marketing of Adelaide in this sense is the province of the South Australian government, which also has responsibilities to the South Australian regions.

Secondly, there is the unusual situation of the Adelaide City Council's area of responsibility, which combines the characteristics of a self-contained suburb and the central focus of a city of over a million people. In this sense, the Adelaide City Council Area is simultaneously competing for residents and businesses with other cities and with other Local Government Areas.



**Figure 1: South Adelaide: Planning Districts (Source: City of Adelaide Development Plan)**

Thirdly, there is the focus of this report, namely the Adelaide Central Business District. While this is somewhat difficult to define exactly, it may be thought of as the Core of the city, especially streets such as Grenfell, Currie, Pirie, Waymouth and northern King William Streets, where the majority of medium to high rise office buildings are located, marked as CA in Figure 1.

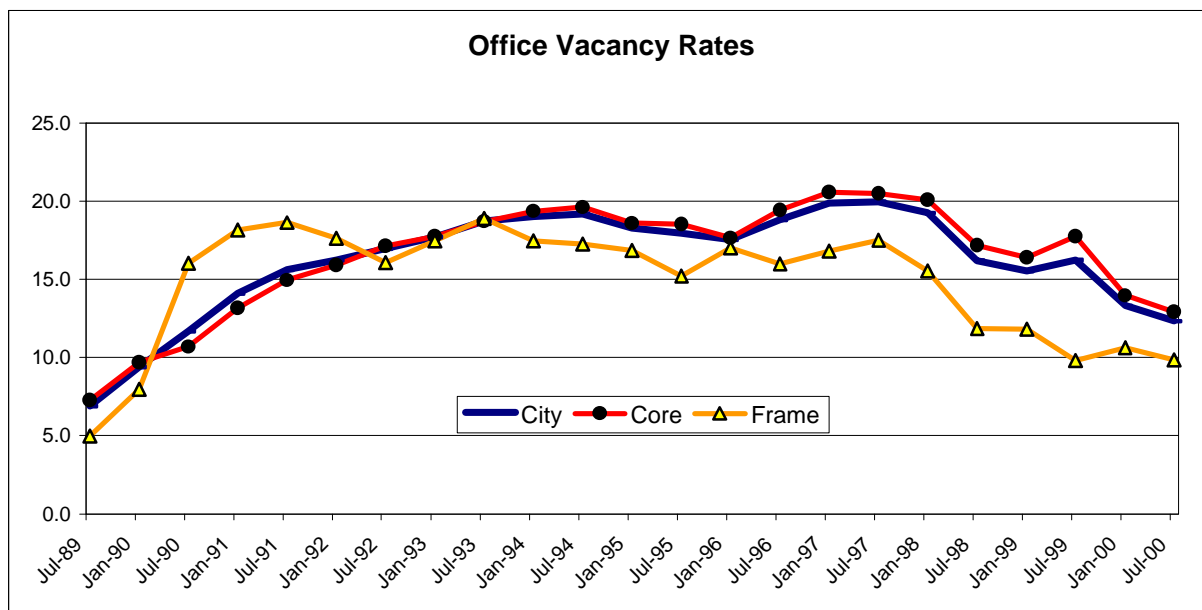
### **Has there Been a Decline in Employment in the Adelaide CBD?**

The available figures, and certainly the anecdotal evidence, suggest that there has been a decline in employment, particularly in the CBD area, and particularly in some sectors. There was a decline of 27% in the number of people employed in the Finance and Investment sector between 1987 and 1997, a reduction of 31% in Insurance employees, a reduction of 26% in Property Services and a reduction of 10% in Public Administration employees. The total number of employees lost from the CBD in these sectors was 5,134, including 1,464 in the public sector.

There was an increase of 16% in the number of people employed in Legal Services between 1987 and 1997, an increase of 4% in Accounting Services employees (although the trend between 1992 and 1997 was for a substantial decrease), and increases of 62% and 94% respectively in Computing and IT Services and Business Consulting respectively. The last two were taken from 1992, because they were not recorded in 1987. Even if these are taken to be zero in 1987 (unlikely), the total increase in employees in these sectors is 2,463.

Therefore, in the sectors that are identified as very important for office employment, losses of employment were about twice the gains.

**Graph 1: Office Vacancy Rates: City of Adelaide**



**Source: Property Council of Australia, Office Market Reports**

Total Adelaide office vacancy rates, as at January 1999 were 16% in the Adelaide Core. This figure disguises the very low vacancy rates in Premium and Grade A and the corresponding high vacancy rates in other grades of building. B, C and D Grade buildings, which comprise 60% of Core floor area in total, had vacancy rates of 18%, 28% and 16% respectively. It is the vacancy rates in these lower grade buildings that help to account for both the perception and the reality of less-than-optimal usage of Adelaide CBD office space.

### What are some possible Reasons for the Decline?

The decline in the **Insurance and Finance & Investment** sectors may be mainly due to centralisation of administration at insurance companies and banks. Even firms such as AMP and Colonial, which were once committed to decentralised administrations for customer service and marketing reasons, have been forced by the pressure on their net profitability to eliminate or reduce their local administrative workforces. Takeovers and mergers in the finance and insurance industries have resulted in the demise of Adelaide-based head offices. BankSA and ASX are but two examples.

In the insurance industry, the demise of tied sales agents and their company-provided premises and administrative support has been another negative influence. The small independent multi-product agencies that have replaced them are typically found in fringe and suburban locations, near to their consumers. Restructuring of the insurance industry in this way may have benefited consumers, but it has had a net negative effect on CBD office employment.

Modern office technology has enabled such centralisation to Sydney and Melbourne, although it has arguably not been the driver. Ironically, this same technology has provided opportunities to partially reverse the employment trend by decentralising call centres and administrative departments out of Sydney and Melbourne for economic reasons such as labour availability and lower cost structures.

It was originally intended to study firms that had forsaken the Adelaide CBD for fringe and suburban locations. This idea was abandoned when it was found that very few such firms existed. The migration of firms from the CBD to the fringe that was observed from the mid-1970s to the late-1980s appears not to have continued in the last decade. A 1986 study by Maloney observed that the fringe locations attracted tenants requiring a location which is not too far from the city, but who do not rely on the CBD for daily business. The attractions were reported to be lower rent (because of lower initial land prices and building costs), on-site car parking and an attractive working environment. But developers interviewed in that study made the pertinent point that the fringe areas were more "developer friendly", perhaps because of the lack of experience of suburban councils in dealing with office development.

Adelaide City Council responded with planning initiatives that enabled Hindmarsh Square/Frome Street to provide fringe advantages, but the market has eroded the perceived advantages enjoyed by the Greenhill/Fullarton Road fringe (immediately to the South and East of Adelaide's Parkland belt). Land prices and rents rose as increasing demand met a lack of prime sites, while suburban Councils implemented office-specific development controls and zoning. While on-site parking was provided for senior executives, increasing restrictions on street parking meant problems for ordinary office staff and for visitors, given inaccessibility of the fringe areas by public transport. Some firms began to experience difficulty in retaining good staff, who disliked the inability to shop at lunchtime and have a choice of lunch venues. Once the parkland frontages were used up, the general environment of fringe buildings became nothing special.

So while the strategies suggested in this report provide a place for "Greenhill-Road-competing" office precincts, the fringe does not seem to be the competition that it once was. It certainly does not seem the source of the more recent decline in Adelaide CBD office employment.

A number of CBD firms ceased to exist during the early 1990's. Employees of firms that closed or downsized their Adelaide operations either moved interstate, or formed smaller competing firms and consultancies. The data suggest that such small businesses often operate from the suburbs or even from people's homes. Certainly the survey showed that office-based businesses in the suburbs tended to be significantly smaller than those in the Adelaide CBD.

The changing nature of business has imposed a requirement for buildings to have certain configurations and to provide certain services. For example, businesses such as call-centres are perceived to need very large floor plates, while access to modern communications technology for all employees is essential. The vacancy figures mentioned earlier, and simple observation, suggest that many buildings are, or are becoming, economically and technically obsolete - simply inappropriate for modern business. For example, how many air-conditioning plants were designed to cope with a personal computer at every workstation? In the personal interviews, several firms

commented that their suburban building was purpose built, thus meeting their requirements exactly.

There is no research evidence to suggest a wholesale move towards telecommuting or home officing, but studies in 1997 (Lorrimer) 1998 (Kooymans) and 1999 (Kooymans et al) show a surprising number of office workers in Australia and Adelaide have at least a toe in the water. More firms see a move in this direction as inevitable. These phenomena have clearly had some influence.

In summary, the decline has been caused by a number of factors, some one-off and some continuing. Strategies have been suggested to overcome some of the factors that have caused people to move from the CBD.

### **The more Important Dimension of the Problem**

While it is useful to identify the causes of the decline in CBD office population, it is seems more important to identify how to attract new business for the future. Addressing perceived problems of existing businesses will be likely to assist to some extent in attracting new business, but the main focus should be on the future. This is what caused the researchers to concentrate on the future, particularly in the personal interviews.

### **THE NEW KNOWLEDGE WORK AND THE CBD OFFICE**

There is much empirical evidence to indicate that the nature of office work has changed. Old "rules" like finance, insurance and real estate employment driving the office market, office employment being on an endless upward trend, and 20 square metres per office worker being the standard, just do not seem to apply any more.

At the heart of changes in modern office work and offices lie the increasing relative importance of knowledge work, deregulation of national and global financial markets, the consequent imperatives to corporate efficiency and, above all, the revolution in communications technology. Although it may be intuitively appealing to see these as positives in the demand for office space, they may equally prove to be a negative for a given city or region (Sullivan 1996). As noted previously, the combination of drive for efficiency, globalisation and the enabling technology has seen most of Australia's insurance and banking organisations centralise their administrations at their traditional head offices in Sydney and Melbourne, which are perceived as "world cities". This has led to a marked decline in employment in these categories in Adelaide (City of Adelaide 1999) and other State capitals. On the other hand, technological innovations having made it possible to perform all but the "personal interface" functions such as selling from anywhere in the world (Ginsberg 1999).

### **Construction Industry Response**

Duffy and Tannis (1996) provide a scathing critique of the ability of the construction industry to accommodate the new knowledge work and its requirements. They maintain, and it is hard to find contrary evidence, that the construction industry is still stuck on the Taylorist model. " (Frederick) Taylor's ideas changed the face of the workplace 100 years ago and still dominate office design to this day. Compare such leading offices as Frank Lloyd Wright's Larkin Building of 1904 with those of corporate America of the last few years. The physical similarities are striking, the conservatism colossal. This is hardly surprising given that the process by which office buildings, and especially office interiors, have been procured has hardly



changed since the first text books on office administration and office layout were compiled in the first decade of this century." "Taylor's ideas of the mechanical, top-down, inhuman, status-rich, invention-poor, alienated workplace live on, manifested in every workstation, ceiling tile and light fitting." (Duffy & Tannis 1996)

In a conversation with the author, Vivienne Loftness (Loftness, Hartkopf & Mill 1990), related the difficulty of getting their "living laboratory" of office design built, despite the fact that it uses only commercially available technology. Quotations ranged from 1.5 to 3 times the cost of building equivalent space, simply because the builder had no experience of something like that, and erred on the safe side. Based on material costs and time to build, such innovative office space should cost between 5% and 20% more to build than conventional space, while yielding life-cycle cost savings (including churn costs) of around 50%.

There is little evidence that Australian builders, or the universities that educate them, are moving beyond that supply-driven conservatism, despite innovation by the design professions. The answer may be to emphasise the demand side and the true clients (office workers and office-based firms) as a driver for developments and redevelopments. This should preclude the speculative office building, whose design is largely supply-driven. Perhaps a modification of the San-Francisco Downtown Plan ordinance approach is needed (Ghosh, 1990). In this approach, the two unusual and therefore controversial criteria for development approval were:

- Does the city actually need additional office space?
- Does the building under consideration possess architectural merit?

Perhaps considerations of architectural merit, which almost always lead to fruitless argument, could be replaced with the concepts of usability and adaptability for future use? Perhaps there is a way of bridging the cost difference between conventional and truly modern office buildings, until the construction industry has the experience with innovative buildings to avoid the present huge premium for perceived risk?

### **Back Offices**

It is also possible for the flow of office work to the major "head office" metropolises to go the other way. This is particularly the case in Australia with back-office functions (Bryant 1998). In Adelaide's case, that includes Westpac's national mortgage centre, Bankers Trust's investor and securities services centre, Ansett's ticketing call centre, Telstra's national pay-by-phone centre, Link and Hutchison Telecommunications and AAPT (Kennedy 1998).

Although the purpose of this research was to examine what attracts office business to the CBD, it is relevant to note some of the reasons given by BT Australia for locating their investor and securities services centre in Adelaide. These include lifestyle factors, which attracted many Sydney employees to move to Adelaide, a stable, skilled and enthusiastic workforce and, above all, economic advantages such as salary differentials, lower rentals and lower communications costs (Kennedy 1998). The Adelaide CBD actually shares all of these advantages, but it was suspected that this may not have been realised by decision-makers from large cities who are accustomed to a big cost differential in favour of suburban locations. Given that this type of business is continuing to be targeted by the State government, the decision making of call-centre type operations became one of the main foci of this research.

Since the research has been completed, BHP has opened its Shared Services Centre at 55 Grenfell Street, Adelaide in October 2000 with over 500 staff over 8,000sqm. BHP noted that there was a shortage of good quality Office space in the CBD. BHP made its decision to relocate its Shared Services Centre to Adelaide based, inter alia, the quality of its social, cultural and educational infrastructure. While Adelaide was seen as the most accessible Capital City its real strength lies in its lower cost structure, a stable workforce, and moderate rents.

The growth of Data Centres represents a challenge for an established city, as they need between 7,000 sq.m and 20,000 sq.m of space often on one floor plate. Such large areas are preferred to facilitate the development of a common culture within the company and as they require less supervision of staff. Data Centre belts have begun to emerge in Melbourne's south -eastern corridor, Port Melbourne and north -east of Sydney at North Ryde.

### **The Reinvented Workplace**

While the technological revolution has enabled global and national corporate office functions to be more flexible in their global location, the same revolution has also had a considerable effect on the carrying out of office functions within a given city – the so-called “reinvented workplace” (Becker & Joroff 1995). This is manifested in a range of fairly recent phenomena, which are noted and described below.

In a 1997 survey of Adelaide CBD and inner-suburban office users (Schirmer 1997), it was noted that there was a high awareness and an increasing usage of the alternative officing techniques. The results were very similar to surveys carried out in Sydney and in the U.S., indicating that Adelaide office users are as aware as anybody about the alternative office approaches enabled by technology.

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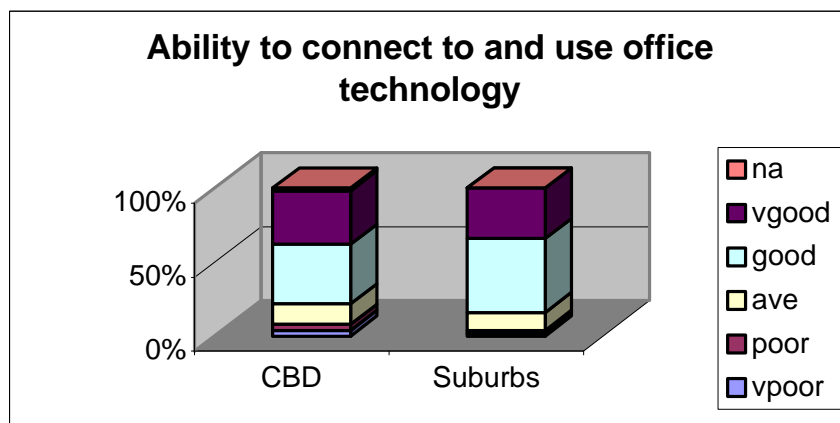
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## **SURVEY FINDINGS ON MODERN OFFICE TECHNOLOGY**

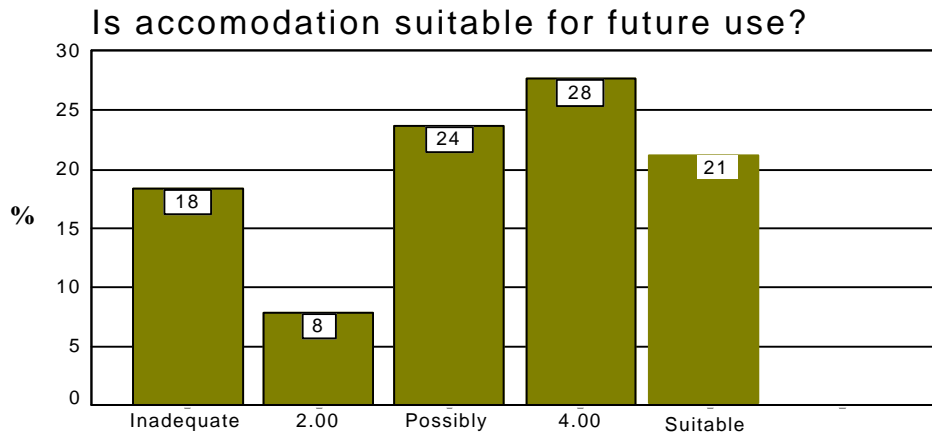
The large majority of respondents thought that their ability to connect to and to use office technology was good to very good (Graph 2). This applied in almost equal measure to CBD and suburban respondents.



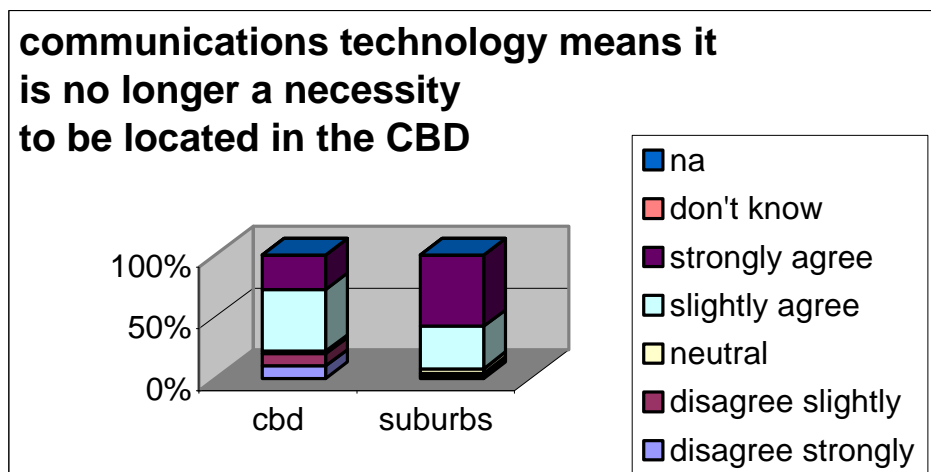
**Graph 2.**

This is an indication of present satisfaction with the technology. As businesses become more dependent on speedy information technology, their present usability and speed of connection will probably become less acceptable. The 1997 Adelaide technology survey (Schirmer 1997), asked respondents whether they thought that their existing accommodation would be suitable for future use. The responses showed that 26% feared a degree of inadequacy, while 24% were unsure (Graph 3).

**Graph 3**



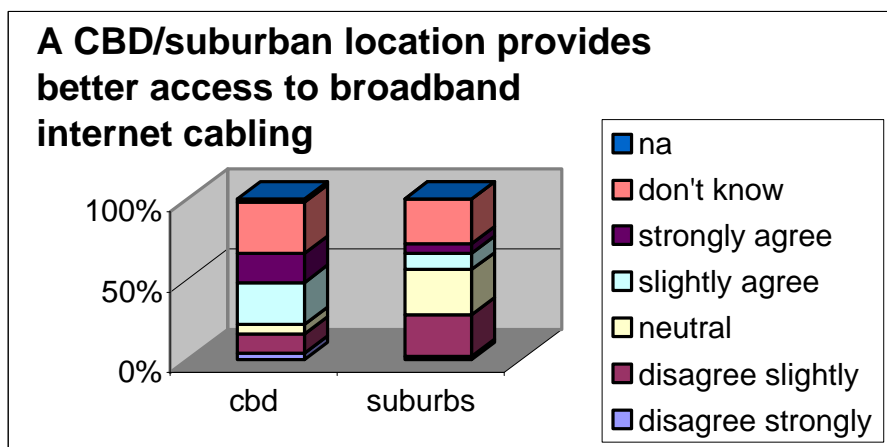
There was agreement from both groups surveyed with the statement "Communications technology means that it is no longer necessary to be located in the CBD" (Graph 4).



**Graph 4**

There was stronger agreement from the suburban-based groups, which is to be expected, given that this is their experience. Modern communications technology can reduce the need for face-to-face contact, which was initially one of the reasons for concentration of offices in CBDs. From this point of view, there is a potential threat, although the majority of CBD respondents clearly saw other reasons why a CBD location was necessary. On the other hand, when Adelaide is looked at in relation to Sydney and Melbourne, that same technology enables an opportunity.

In response to the statement "My location provides better access to broadband Internet cabling, there appeared to be quite a deal of ignorance among respondents. This is especially true of suburban respondents if the "don't know" and "neither agree nor disagree" responses are taken into account (Graph 5).



**Graph 5**

There appears to be an opportunity here for education on the importance of broadband to the future of business communications, combined with the creation or consolidation of a competitive advantage for the CBD in this important area. Initiatives may well include the Adelaide City Council's current Smart Buildings program, and facilitation of broadband reticulation in the CBD and or specific technology-oriented precincts.

On the specific question of whether suburban office users would consider moving to the CBD if offered participation in the Adelaide City Council's Smart Building program, there was an insignificant increase in likelihood - from 1.6 (on a scale of 0 = no likelihood to 10 = certain) to 2.6. This fits in with the general present satisfaction with IT connectivity. It was interesting to note that respondents were supportive of the initiative when it was explained to them.

In the personal interviews with significant space occupiers, only one CBD interviewee considered IT to be a locational driver:

- *IT drives a lot of our locations. No. 1 consideration is availability of fibre-optic cabling*
- *As IT is a big driver, we make tradeoffs to accommodate IT requirements. I can see more tradeoffs being made*

The other CBD and suburban interviewees did not raise IT as an issue. However, when the interviewer raised the topic, it was acknowledged that they certainly were important:

- *Not that much. Size/space was more the issue. If the workstation space was available, we were going to take it. IT didn't seem such a huge issue. Haven't had trouble with it in the past. You could get it put in I would think anyway. But this building was purpose built for IT business, so you'd expect it*
- *It's a new building. Image more important. IT not a huge criterion, but it is nice to have*
- *Very important - call centre so need latest, fastest. This building suits our needs - lots of options. We are a technological hub in this building*

- *IT - yeah important, but it's all there so it's not a problem*
- *Not really important as we have a purpose-built building. We are fully internet based*
- *We have readily available bandwidth. Good. What we need.*
- *A lot of it we do ourselves. We are more labour and rental oriented*

So it seems that it is taken for granted that IT connectability will be provided and suitable. IT has become "part of the furniture" for these firms - only noticed when something goes wrong.

When asked what things needed to be done to make their building more "future proof", only two comments related to IT:

- *Increase generator size and uninterruptible power supply. So future proofing will be technological, not physical*
- *Probably only IT. We might need different cabling if we changed platforms*

Again, this appears to support the prevailing opinion within these firms that what is needed will be provided. This is probably true of the buildings that they occupy, which are modern and technologically advanced.

Firms were asked their views on the future of office work. Nearly all the companies spoken to had at some point experienced staff working from home. However, this was mainly senior staff and had occurred mainly as a means to gain after-hours productivity rather than in any formalised sense. While some firms could see that it was a possibility and they were certainly not averse to the possibility (or felt that it was unpopular to claim to be averse), it was unlikely to be adopted in a formal and significant sense. This view was consistent across CBD and suburban located businesses:

- *Federal government need to make changes - may decentralise*
- *We're probably 5 years off people working from home. We encourage it when we refit to (temporarily) get them out of the building*
- *Doing a little bit of (teleworking). Business is such that we can. Admin and office need to be here though*
- *Little bit done at home. Have Intranet, emails, and faxes. Only ever for one day a week. It's face to face - need an amount of discipline*
- *All of our senior management work at home at some point. Good for executives. Could see it being possible for some of the areas of our business but not probable. We allow flexible hours and a number of staff work four day weeks because that suits them*
- *Always need staff to control satellites, so no. Part of our contract is to be here 24 hours a day (presumably collectively, not individually)*
- *Still need to go to the office*
- *OK for some areas, but not all. A bit of it happening now*
- *Would work in some areas, as we're almost totally paperless. Always been on the cards. We have hit capacity here so we need to expand or come up with other solutions*
- *Not for our business*
- *Virtual offices an option for some of our work, but if something goes wrong it will take a long time to get there to fix it*

It appears as if the larger firms that were interviewed here have a somewhat more conservative view of teleworking and virtual officing than do the smaller businesses surveyed in 1997. This accords with experience elsewhere, where smaller businesses are more flexible, whereas larger corporations are more controlling and less trusting of staff. From a City of Adelaide viewpoint, there appears little competition from teleworking for office space required by larger businesses. For the smaller firms that are likely to take up the bulk of space in total, facilitating teleworking by providing appropriate IT connections appears to be a useful way to go.

## **THE WORKPLACE**

It was shown in the previous section that new ways of working enabled by technology have been adopted to some extent by most firms, and that the current stock of buildings generally is apparently usable or adaptable to firms' present work requirements. This section discusses:

- the likely requirements of buildings for the future, which is of concern to the City of Adelaide's planning and building policy-makers,
- the satisfaction or otherwise of CBD and suburban office occupiers with their buildings, and
- the possible adaptation of existing CBD building stock to meet the requirements of the occupiers.

Improvements in information technology and its reliability have certainly influenced the design of the office building, for good or ill. Incorporation of communication systems has proven a headache for managers of existing structures and the proliferation of personal computers has overloaded many an air-conditioning plant. The biggest changes have been and will be brought about by the changing nature of office work – intellectual, integrative, creative work where effectiveness matters rather than efficiency (Duffy & Tannis 1993). Such phenomena as integrated systems furniture, home based telework, telework centres, non-territorial offices, found and designed alternative workplaces, team offices and virtual offices are often difficult to accommodate within the confines of current office building design (Becker and Joroff 1993). Sullivan (1996) sees a mix of strategies involving smaller, highly serviced core offices, more distributed offices, a more mobile workforce and a growth of teleworking. These predictions are supported to some extent by business respondents to surveys carried out in Australia by Knight Frank Hooker (1995), Schirmer (1997), Lorrimer (1997) and Kooymans (1998) and in the United States by ISFE (1996) and Kaplan (1996).

The re-engineering of buildings for greater occupant comfort and productivity, with lower running and environmental costs, has also come in for attention. It has been demonstrated that, using existing technology and products, buildings can be designed to meet these requirements. Features include: distributed systems and cores for greater flexibility; floor distribution of services including HVAC; “fresh air” architecture; thermal and light balancing; flexible grid systems for HVAC, lighting and communications; individual environments; new workstation and office planning concepts; shared facilities and services; “smart” building management systems (Loftness, Hartkopf & Mill, 1990)

| Provision             | Adelaide Study | ISFE |
|-----------------------|----------------|------|
| Communication Sockets | 32.9           | 32.0 |
| Individual lighting   | 23.1           | 23.0 |
| Modify work stations  | 19.6           | 15.5 |
| Network connections   | 31.5           | 30.5 |
| Power points          | 33.6           | 32.5 |
| HVAC control          | 18.9           | 16.3 |

**Table 1**

In the 1997 study of Adelaide office users (Schirmer 1997), respondents were asked about their requirements for provision of facilities to all their workers. The results were compared with those of a study carried out in the U.S.A. (ISFE 1996). Both findings were adjusted to a common 35-point scale, with higher average figures representing a strong inclination to include the items in employees' individual workstations.

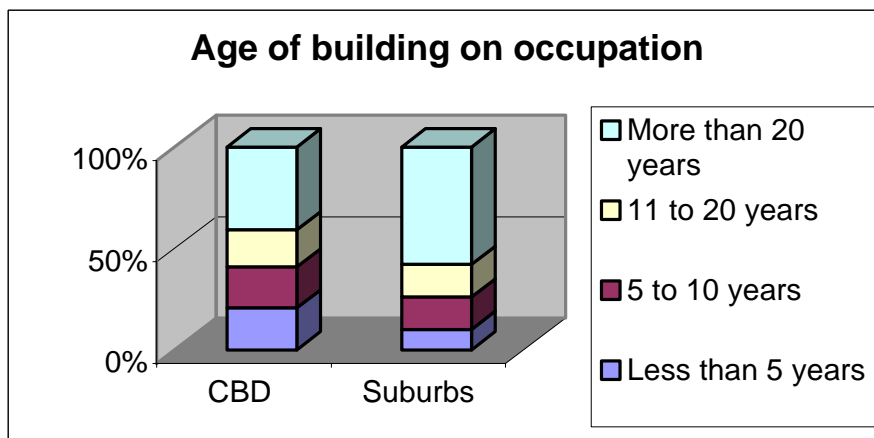
The similarity of results is notable, again illustrating that Adelaide office users are as technologically aware as anyone. The results also demonstrate that buildings should enable the economical provision and alteration of such individual workstation facilities. Fitting out with the necessary wiring is not necessarily easy in the C and D grade buildings that have high vacancy factors, especially if the building's infrastructure has not been upgraded. Low slab-to-slab heights can make reticulating cables problematic; inadequate riser provision can mean that there is nowhere to run cabling; the building may have an inadequate power supply all the way from the main switchboard to the tenancy board.

### What do the Surveyed Office users think of their Buildings?

Respondents were asked a number of questions to build a picture of the type of building that they currently occupy and their satisfaction with the building and what it provides. It is not surprising that there was little dissatisfaction, because most firms chose buildings that suit them, although there are sometimes unpleasant surprises only discovered through experience. Nevertheless, there are instructive results, such as the reaction of respondents to refurbished buildings. The results of the personal interviews and the insights they give into future requirements are also useful.

Respondents were asked for the age of their building when they moved into it

**Graph 6**

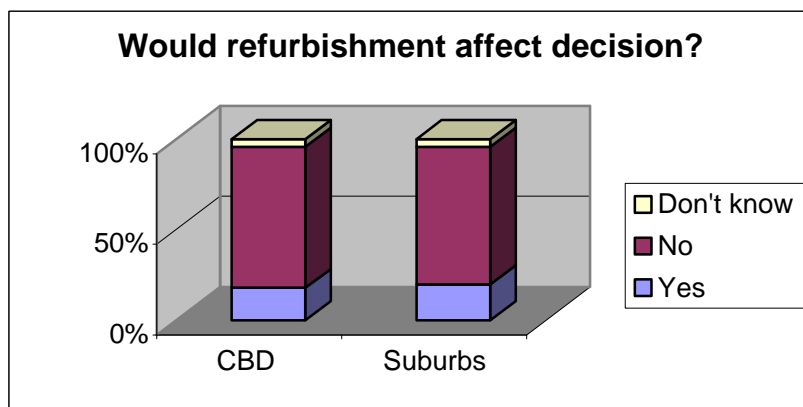




Somewhat surprisingly, the CBD buildings were a shade younger than were those in the suburbs. However, the fringe building boom is 15 to 20 years old, and some suburban offices still consist of converted Victorian villas, which may account for the difference. Importantly, the great majority of respondents do not appear to have a problem with operating in older buildings, which is encouraging for the owners of vacant CBD building stock

Of particular interest was the attitude to refurbished buildings. In 1985, a study of building refurbishment in the City of Adelaide (Kooymans 1985) showed that the large majority of office tenants in refurbished buildings would rather have gone to a new building if they could have afforded it, while none of the new building occupiers would even consider a refurbished building offering the same accommodation standard. There was a 20% rental differential in favour of the new buildings.

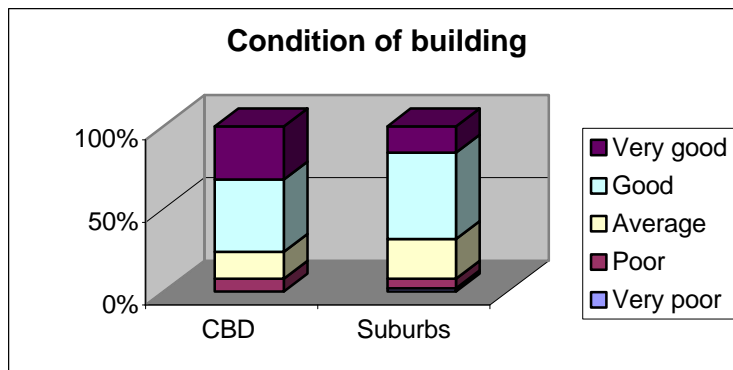
The latest study shows a different picture. Respondents were asked "If a building offered all of the attributes your organisation required, but was refurbished rather than new, would this have any bearing on your decision? (Graph 7)"



**Graph 7**

Only 20% of respondents in the suburbs and 18% in the CBD thought that it would make a difference. The difference between 1985 and 2000 results is probably due to the different images reflected by businesses then and now. In 1985, conspicuous corporate consumption was the trend, with organisations wanting to project an up-to-date, money-is-no-object-to-us image. In this new era of corporate competitiveness, such an extravagant image is likely to be off-putting to both shareholders and customers. There is more emphasis on appearing business-like and cost-conscious today. This result is good news for the refurbishment of existing building stock, although it may be that corporate image expressed through buildings may again have its day in future.

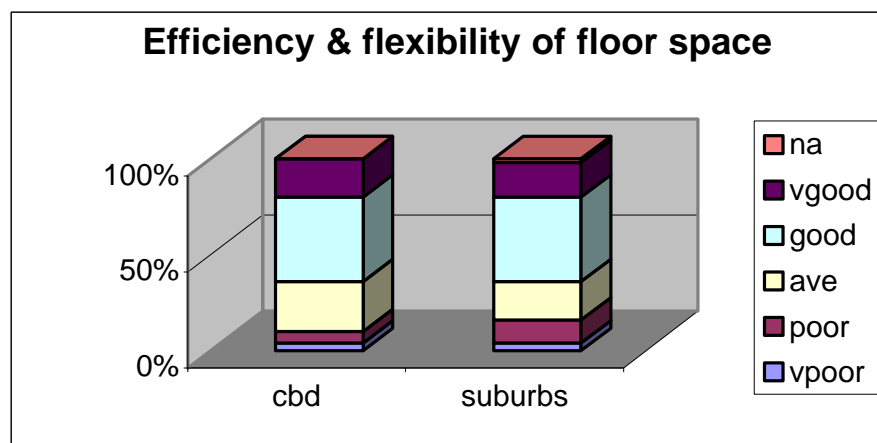
Respondents were asked about the condition of their buildings (Graph 8)



**Graph 8**

Despite the age of the buildings, the great majority felt that they were in good condition. The CBD occupants had a better opinion of their buildings than did the suburban occupants, which correlates with the findings on building age. The finding seems to provide a warning to building owners that tenants do not occupy buildings that they see as being in poor condition.

A particularly important issue is the efficiency and flexibility of the floor space provided (Graph 9).



**Graph 9**

The CBD and suburban survey respondents were both happy with this aspect of their buildings. As these are relatively small users of space, most occupying a floor or less, this would not be expected to be much of an issue for them.

A related issue is the provision of space per person.

Floor plates were important with the in-depth interviewees. Several firms mentioned the desire to have a large floor plate and locate on one or two floors, rather than taking space over several floors or several buildings.

- *We have everyone on one floor. We came from two office buildings (spread over 3 floors in one of them) and it was impossible. This was the only building in Adelaide that could accommodate us on one floor*

A concern with some interviewees was having floor space and floor plates large enough to accommodate future requirements.

- *If we grew and there wasn't space in this building, we would want something nearby. But it wouldn't be ideal - better to have the whole business in the one location*
- *If we had huge growth it might be a problem, but then we would look at reconfiguring workstations before moving. Really want a single floor. We might look at Greenhill Road, but we would rather not.*
- *Perfect building. We have room for growth that we expect shortly.*
- *The ability to expand our building - maybe out or maybe up.*
- *New building we are building has been made adaptable to change*

It seems that floor plates are an issue to the large tenants involved with new technology, especially call centres, but are not really an issue to the smaller tenants who form the bulk of the market. Large floor plates require large land areas that are scarce and expensive in the CBD itself. Fortunately, Adelaide is uniquely blessed with areas in the city that allow buildings to have substantial floor plates at reasonable land cost - EDS and University of South Australia are good examples.

Adelaide City Council could adopt a strategy of rezoning and/or gaining control of under-utilised sites in the City's west, specifically to make them available for developments that would otherwise go to the suburbs. Firms would then be able to combine the floor plate necessary for their operation, with the staff-attracting benefit of being at the transport hub and close to city entertainment attractions. Promotion would require a coordinated strategy with State government, as the possibility of putting a large-floor-plate operation within the city business precinct would be unlikely to occur to the typical decision-maker.

Incentives could be offered in conjunction with State government incentives. These might include site subsidy - early control of desirable sites would be necessary for this; rate reductions; expedited approvals; access to a bank of knowledgeable build-to-suit contractors; and available infrastructure such as broad-band cabling or wireless connections.

Adaptation of existing (and future) building stock to meet tomorrow's needs is essential and could be assisted in a number of ways.

Adelaide City Council's Smart Building program, which subsidises the provision of broadband communications cabling throughout a building during refurbishment, seems to be a very sensible initiative. Further initiatives that might be taken to encourage provision of technologically enabled buildings include:

- A Council-sponsored audit of "problem" buildings, to identify the most promising raw material for upgrading and conversion;
- Identification and encouragement of expertise in retrofitting buildings to meet today's and tomorrow's requirements;
- Education of building owners and their agents in the new market realities;
- Extension of the Smart Buildings subsidy to include things like reticulation of other services, back-up power supplies, etc.;
- Encouragement to refurbish, and/or discouragement to "sit on" buildings, while they slide into disrepair and disrepute;

- Subsidising tenants to fit their tenancies out with flexible, modular work-stations, to reduce future alteration costs;
- Where appropriate, modifying any planning and building requirements that discourage provision of new-office technology; and,
- Providing trade-offs, such as extra car-parking allowances, for building owners to upgrade to meet the requirements of the technology-oriented tenant.

Such suggestions could, in many cases, apply to new building applications. There has been a tendency with the latest crop of new buildings to spend the money on technology that will save running costs, rather than directly serving the tenant. Rather than cost-reduction being the sole aim, perhaps building producers could be encouraged to compete on the basis of the uniqueness, usefulness and reliability of their product, for that is what the most successful globalised companies do.

### **A Technology Park in the City of Adelaide?**

An extension of the individual, low-rise, high technology concept would be the construction of a Technology or Science Park equivalent within the Adelaide CBD. The suburban survey respondents were asked whether the existence of such a park would attract them to the CBD. There was no significant increase in their likelihood of relocating to the CBD, which is to be expected, as the respondents were ordinary office users.

In-depth interviews were conducted with largely technology-campus-based businesses, specifically for the purpose of exploring this possibility. Interviews were conducted with both senior and middle management level staff, and differences were observed between the two groups. Those at senior level gave an apparent company view, citing their current location as being ideal. It seemed that they were defending their current location and the decision that had been made. The middle-level managers were far more open and, while some still enjoyed their current location, there were some aspects of a 'normal' work environment that they considered were missing. Several mentioned the lack of camaraderie among peers, that the opportunities to socialise after hours were limited by location, and that networking opportunities were non-existent. Most had previous experience working in a CBD environment, in Adelaide, Sydney or Melbourne. Some had also worked in outer suburban environments interstate, so there was a broad cross section of experiences among respondents to this part of the research.

- *I used to work in Greenhill Road, before that the CBD - really liked it there. There's not much to like here*
- *Transferred from Sydney CBD. Did it as a lifestyle move. Been here 3 years*
- *Been here for 2 years. Never worked in CBD - only airport*
- *New building. Easy to get to. I like it*
- *I have worked in the CBD before. I miss some of the networking and social opportunities there*
- *There's no socialising. I have to travel to do banking and errands like that. Before I could just step out for a few minutes and get everything done*

Ease and availability of car parking was a highlight of working in suburban technology park locations. Several managers claimed to have taken their positions as lifestyle moves, particularly those that had transferred from interstate. Interestingly,

when asked about their job, they related to location rather than the company or the position itself.

- *The location is nice. Car parking is good. If we worked in the city though, I'd use public transport. Adelaide people seem to want to drive to work. Close to nice parks.*
- *I can drive to work and most times I am going against the traffic so it's a quick trip. Parking is good and we have on-site childcare. That is a big thing for people here. Wouldn't get that in the CBD. It's nice and spacious, so I get good people who want to stay. Natural light, good set up and it's easy to reconfigure workstations. Lots of flexibility because it is a purpose built building*
- *Nice birds and wildlife*
- *Car parking. Nice to be able to go for a walk*
- *There is a canteen. It's close to where the staff lives. You can eat outside. The security is good. You feel safe even when you are working shifts.*

The negative aspects of their current position also elicited location-related responses.

- *Travel - too far; no services available; have to bring a lunch box*
- *There's nothing to do at lunchtime, though that probably makes me more productive. There is no social aspect. In Sydney you work hard but you play hard too. There's nowhere to go for a drink that you can walk to. Everyone's driving. There's a little bit of socialising, but not much. There's also an artificial business pace here - it's slower. That rubs off in the office environment*
- *It doesn't really give off a professional image, being out of the CBD. There is a drop in prestige with this location. There's a perception of relaxation here - for staff and clients. Dress standards are a bit low. But the building does seem to impress clients*
- *It smells. Sewerage damp smell in the morning. Too far away from home*
- *The travel sometimes. I live a long way from here. Sometimes miss the shops*

Several managers from high technology companies had transferred to Adelaide from Sydney or Melbourne. Some had taken a promotion, while others had seen the move as a lifestyle choice. Other managers had transferred from like businesses in Adelaide. The provision of on-site childcare that was offered in three sites was also a great attraction. While no one mentioned it directly, it appeared that the managers interviewed saw their current position as a stepping-stone and viewed their current job and location as out of the ordinary and probably unlikely to be long term.

- *Knew people who worked here. That's what attracted me. I would rather be working in the city, but the job was here. I just think there is a bit of professionalism missing here*
- *Accessibility to ovals. Shopping centre down the road. It's not bad really and these things were attractive. But there is no networking - only within your own organisation. Can't meet acquaintances for lunch and I used to do that when I was in the CBD*
- *Lifestyle move to Adelaide. Purpose built building with childcare was a real attraction. If it were like Westpac, I wouldn't have found it as attractive. Westpac looks disorganised. Too much paper - we have very little paper here*
- *The company drew me. It wasn't the location at the time. It's a long way from where I live but I had just heard such good things about the company*

Interviewees were asked directly about the attractiveness to them of a technology park in a CBD location. While travel and car parking were considerations, middle managers were open to being located in the CBD and could see distinct advantages. The main issue was a social interaction that seems to be missing in an outer suburban location. The isolation from appropriate pubs, bars and restaurants means that after-hours activities are limited. In addition as all of these managers drive to their office, drinking before driving home was not considered desirable. Some mentioned the limited opportunities for entertaining guests at the few local restaurants, which were also not up to the required standard. Several managers acknowledged advantages in having like businesses located together in a high tech hub in the CBD.

- *It would be great. There's more social interaction in the city. Shopping and facilities are close - easy to get to*
- *I'd enjoy it. I don't mind this, but the city would be preferable. More sociable - more networking opportunities. Could do banking, pay bills, shopping. Can do that here, but you have to travel to do so*
- *It would be a plus for me. Just feel there is less networking available here, at my level anyway. There's no great camaraderie among staff here. It's quite noticeable. There's nowhere to drop in for a drink. Also for clients - where can you take them? Not much around close by - we have to get a big bunch of cars and ferry people to Glenelg*
- *My concern would be parking. Sometimes I have to come in at short notice. I wouldn't want to be wandering around in the city during the night*

The organisations interviewed for this component of the research were all housed in purpose-built accommodation. As a consequence, there was little offered in comments on improving buildings or their settings

The middle managers interviewed saw a CBD location as being especially important in attracting skilled professional staff. Strategically though, the majority of senior management respondents felt that the current locations offered more to the businesses than sites currently available in the CBD. As mentioned at the beginning of this section, there was a fair degree of self-justification in some of the responses.

- *(CBD) Doesn't offer us anything. More just a distraction for staff. They are much more focused here. It would be beneficial from a networking viewpoint though - internally and externally. But then again, our culture is different - we want to be different*
- *Can see that it is attractive for staff and puts them where the business is. So, from a strategic point of view, NO, but from the operational point of view, people are telling us YES*
- *Would be attractive. When we advertise for professionals, I often think we would get better people if we were in the CBD - I think professionals want to stay in the city*
- *We have a location in the city too. State of the art design and equipment. I wouldn't mind being there if I had a car park*

The results from the interviews with people from firms in existing technology parks in Adelaide confirm some trends that have been observed in the United States. The establishment of office and high-technology campuses on the urban fringe has been a much stronger movement in the U.S. than in Australia, perhaps because our major CBDs are still a lot safer and more livable than many in the U.S. Subsequently, there

has been a growing realisation of the role that location and amenities play in attracting highly qualified professional staff, for which there is strong competition among firms. Firms have often tended to provide facilities on site. There is a headquarters for a major financial institution (Freddie Mac) outside of Washington DC that provides a choice of restaurants from snack bar to 5-star, banks, dry cleaning agencies, fully equipped and staffed gymnasium, and indoor and outdoor rest and relaxation areas.

Because of the sorts of problems mentioned by our employee interviewees, a trend has commenced to locate closer to the metropolitan centre, where land availability and costs preclude the single-level, spread-out office campus. Once the decision is made for a more central location, then more efficient land use becomes the issue, meaning that attention is now being paid to making the mid-rise building work for the high-tech, work-team-oriented tenant. Part of this involves using large, open, internal communicating stairways between two or three floors, as well as the usual lifts and fire stairs, to facilitate internal communications. Small social centres are established on each floor, with a larger central social centre to promote casual gatherings and internal communication. Glass walled conference rooms and balconies take advantage of outlooks and views when available (Lockwood 1999).

Looking at the applicability of the U.S. experience to Adelaide in the light of the interview findings, there are some inferences to be drawn. The locations of Technology Park and Science Park were not market-driven. A political push to get onto the Silicon Valley bandwagon brought them into existence, while some synergies with existing high-technology defence and medical industry, a (probably illusory) synergy with university campuses and availability of cheap land determined the locations. Reference to strategic decisions by senior management respondents is partly due to such synergies and partly to government incentives. Due to their genesis, it is probably futile to consider that they will cease to exist, or that occupants will move in numbers to a CBD equivalent. It would seem more productive to concentrate on attracting operations from interstate and overseas that are looking for a suitable location. This is largely in the hands of the South Australian government, so a case needs to be made to the S.A. government for getting behind a CBD technology location.

The competition for highly skilled staff, especially in the finance and technology areas, and even in such areas as call centres, presents an opportunity. In Australia and in South Australia especially, the focus on our relatively high unemployment rate disguises the fact that there is a shortage of the highly educated and skilled staff required by technology- and finance-oriented operations. The local survey and overseas experience shows that working lifestyle is a major consideration for potential employees and in turn for employers seeking their services.

Adelaide City Council may well consider enhancing and promoting the city working lifestyle in this context (and generally for that matter). There is almost nothing mentioned among the lifestyle advantages for outer-suburban technology parks that does not exist, or cannot be replicated in the CBD, and there are other things that outer-suburban locations do not have. Taking a hypothetical location in the City's northwest:

- For the walkers and “communers with nature”, the park lands along the Torrens are close by, and pedestrian access to them from that part of the city could be

enhanced. Serious, as opposed to token, landscaping could be incorporated on site;

- Secure car parking could be incorporated on-site - while there is easy car-parking on outer-suburban sites, it is in the open air and is not secure;
- Childcare facilities could be provided on-site, along the lines of that jointly provided by the University of South Australia and Council at the City West Campus;
- There is easy access to two universities, not one;
- Adelaide is a public transport hub. Even if the eventual location were somewhat off-centre, re-routing or extending free bus services could overcome transport problems; and
- All of Adelaide's entertainment, shopping and restaurant precincts are easily accessed on foot or by free buses

There is much to be said for the attractive power of the synergy of like businesses being close to each other. A leasing agent told the story of trying to lease an office building at Kent Town, against the competition of Greenhill Road. The building was superior in quality and fit-out and much closer to the CBD, the rent was cheaper, and it was on a frequent public transport route. However computer companies refused to consider it, insisting on being on Greenhill Road "where all the other computer companies are". This suggests that any CBD technology park would require to be targeted at specific sectors or types of business.

In many respects, the hypothetical northwest Adelaide city location is similar to the near city locations starting to be favoured by U.S. corporations. The comments about adapting medium-rise buildings to provide the advantages of low-rise campuses would apply in such a location. Ideally, such considerations could be taken into account in refurbishment of suitable CBD buildings.

There certainly seems to be merit in exploring the idea of low-rise, large-floor-plate, technologically enabled buildings within the City of Adelaide. Exploration could determine whether or not these are part of a formal technology park, or something less formal, and how they should be funded and facilitated. The benefits in attracting large numbers of affluent employees to the State and the CBD, and providing local opportunities for South Australia's university graduates would seem to be worth a feasibility study on behalf of Adelaide City Council and the S.A. Government.

## **CONCLUSION**

In a recent discussion paper (Somers & Carlson 2000), a study of Silicon-Valley-type high technology firms in Seattle in the USA concluded, inter alia, that cities needed to:

- Understand the firms that you are trying to attract and the city's competitive advantages – hopefully the study has assisted here
- Invest in human capital – facilitating educational institutions
- Invest in infrastructure
- Invest in quality of life
- Streamline planning and other laws and processes
- Apply information technology in the public sector



While Seattle is hardly a small regional city, and the subjects of the study were true high-tech, engineering based firms, not office businesses using technology, there is much in common with the studies' findings.

All is not doom and gloom, therefore, for the regional city CBD – the very technology that has seen a contraction of traditional office employers to the major conurbations has seen the rise of the flexible firm that is truly footloose. Lifestyle seems to be an increasingly important attractor, along with inherent economic advantages.

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