Introduction

The Yellow Pages® Small Business Index ™ is an ongoing series of surveys designed to track confidence and behaviour in the small business sector.

The primary objectives of the Index are to track small business activity over the past three months; expectations over both the next three and 12 months; and to measure overall confidence within the small business community. A second purpose is to provide an independent, objective channel for reporting proprietors' experience and attitudes on key issues.

Each quarter the Index examines one or more special issues. In the May 1997 survey, we focus on Technology in Small Business. The survey examines the extent to which small business has embraced computer and communication technology and its plans for the future.

These latest results are compared with those from similar investigations conducted in February 1994, May 1995 and May 1996.

The Index is an initiative of Yellow Pages Australia, as part of its commitment to this vital business sector, and is conducted by the market research firm Brian Sweeney and Associates.

About this Special Report

The Index is the largest economic survey of small business in Australia and focuses specifically on businesses with up to 19 full time employees (including the proprietor if he or she is part of the workforce).

The Index uses a panel of at least 1,200 randomly selected small business proprietors who are interviewed by telephone every three months.

The panel was drawn from all metropolitan and non-metropolitan regions of Australia. Quotas are set on geographical location and type of business division to produce the standard sample breakdown shown opposite. Where replacement panellists are recruited, this sample breakdown is maintained.

Because this is a quota sample, at the analysis stage results are weighted by selected ANZSIC divisions within the metro and non-metro region of each state or territory to reflect actual small business population distribution. The ABS Business Register as at June 1995 is used to weight the sample to be representative of the total business population.

Interviewing for this latest survey was conducted over the period 28 April to 9 May, 1997.

Location of Business

	TOTAL	METRO	NON-METRO
NSW	200	160	40
VIC	200	160	40
QLD	200	110	90
SA	150	130	20
WA	150	130	20
TAS	100	60	40
NT	100	60	40
ACT	100	100	—
TOTAL	1200	910	290

Division

MANUFACTURING	215
BUILDING/CONSTRUCTION	215
WHOLESALE/RETAIL	215
TRANSPORT/STORAGE	125
FINANCE/PROPERTY/BUSINESS SERVICES	215
RECREATION/PERSONAL & OTHER SERVICES	215
TOTAL SAMPLE	1200

Equipment Owned

The chart opposite summarises the current level of ownership of eight items of computer or communication equipment. As illustrated...

- more than eight out of 10 have a fax machine (86%);
- at least eight out of 10 have a mobile phone (81%);
- around three quarters have a desk top computer (76%);
- nearly half have a CD ROM (48%);
- more than two in five have a modem (42%);
- one fifth (20%) have a personal electronic organiser; and
- 14% have a lap top or notebook computer and nearly one in ten (9%) a pager.

Less than one in twenty (5%) have none of these.

Trend data over this February 1994 to May 1997 period suggest that usage of notebook computers and pagers in small business may have peaked in 1995.

For example, between May 1995 and May 1997, the proportion owning a notebook computer decreased by 3 percentage points, whilst the proportion owning a pager nearly halved.

In sharp contrast, adoption of CD ROM and modem technology has accelerated over this period. Penetration of the former grew by 7 points in the year between May 1995 and May 1996 but then increased by 15 points in the subsequent year. Similarly, the take up rate of a modem surged by 11 points in the last twelve months, compared with an increase of only 1 percentage point in the preceding year.

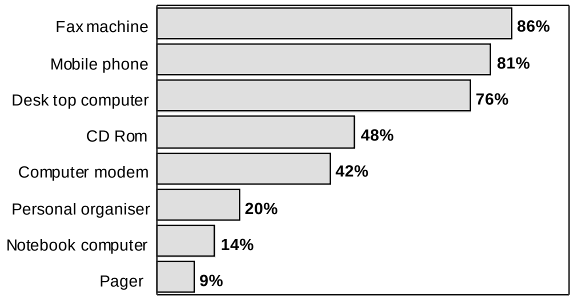
That most ubiquitous item of small business equipment, the fax machine, had been adopted by 85% of small businesses by 1995 and take up has more or less remained at this level since then.

However, mobile phone and desk top computer penetration continues to grow steadily, with the former, in particular, now almost as common in small business as the fax machine.

The actual level of technology adoption in small business has almost but not quite lived up to the level predicted in May 1996, reflecting high realisation factors.

For example, 81% **expected** to be using a desk top computer by May 1997, the actual figure is 76%. Similarly, the 48% expectation for a modem materialised into a 42% adoption rate.

Equipment Currently Owned



SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Trends in Ownership

	Feb '94	May '95	May '96	May '97
Fax machine	79%	85%	83%	86%
Mobile phone	54%	71%	76%	81%
Desk top computer	68%	71%	74%	76%
Notebook computer	11%	17%	16%	14%
Modem	19%	30%	31%	42%
CD Rom	7%	26%	33%	48%
Pager	n/a	16%	11%	9%

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Predicted Versus Actual Ownership Levels

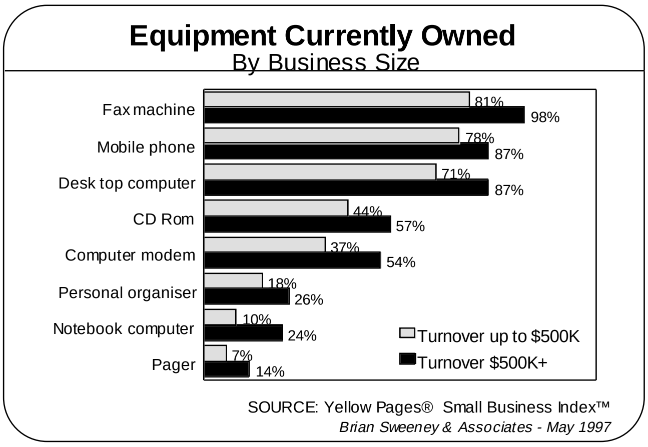
	May '95 Predicted for May '96	May '96 *Predicted for May 97	May '97 Actual
Fax machine	90%	89%	86%
Mobile phone	81%	82%	81%
Desk top computer	80%	81%	76%
Notebook computer	26%	23%	14%
Modem	45%	48%	42%
CD Rom	41%	47%	48%
Pager	19%	13%	9%

**Based on the proportion in May '96 who either owned or expected to acquire by May '97*

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

The chart opposite looks at current ownership levels by size of business.

The results indicate that the higher turnover small businesses are considerably more likely to own all of these equipment items than are the smaller enterprises. Fax machine ownership, for example, is almost universal for those with a turnover of $500,000 or more per annum.



It is also relevant to compare ownership levels by type of industry. In terms of computer equipment, it is clear that those in the **business services** sector are most computer oriented. Nine out of ten, for example, have a desk top computer. Those in the personal services sector are least likely to have computers in their businesses. The ownership of CD ROM technology is high in **business services** as well as in **manufacturing**.

Computer Equipment
Ownership By Sector

	Desk Top	Note-book	CD Rom	Personal Organiser
All Businesses	76%	14%	48%	20%
Manufacturing	76%	12%	53%	25%
Building/Construction	70%	7%	49%	14%
Wholesale/Retail	74%	16%	40%	24%
Transport/Storage	73%	7%	41%	17%
Business Services	90%	24%	63%	23%
Personal Services	67%	8%	40%	16%

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Analysis of communication equipment usage by sector reveals higher than average usage of fax machines in the **manufacturing** and **business services** sectors, with modems being used most often in the **transport/storage** and **business services** sectors. The latter also has the highest incidence of mobile phone adoption.

Telecommunications Equipment
Ownership By Sector

	Fax	Mobile Phone	Pager	Modem
All Businesses	86%	81%	9%	42%
Manufacturing	91%	80%	8%	43%
Building/Construction	81%	83%	10%	28%
Wholesale/Retail	90%	83%	6%	36%
Transport/Storage	85%	82%	6%	49%
Business Services	94%	88%	13%	63%
Personal Services	74%	69%	9%	32%

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Comparing computer equipment adoption by small business across the states and territories, it is noticeable that the ACT and NT have well above average levels of take up for most items of computer equipment. Queensland, in particular, appears to be a bastion of CD ROM technology.

Computer Equipment
Ownership By State/Territory

	Desk Top	Note-book	CD Rom	Personal Organiser
All Businesses	76%	14%	48%	20%
NSW	75%	15%	45%	19%
Victoria	79%	14%	47%	24%
Queensland	77%	14%	56%	18%
South Australia	75%	14%	51%	23%
Western Australia	72%	9%	41%	19%
Tasmania	59%	18%	34%	12%
Northern Territory	84%	24%	49%	30%
ACT	84%	17%	55%	30%

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Tasmanian small business has the lowest take up rate for mobile phones and the highest take up rate for pagers - adoption levels for the former peak in the ACT and Queensland.

Modem usage, too, is well above average in the ACT, although the NT has the highest level of modem (and fax machine) adoption.

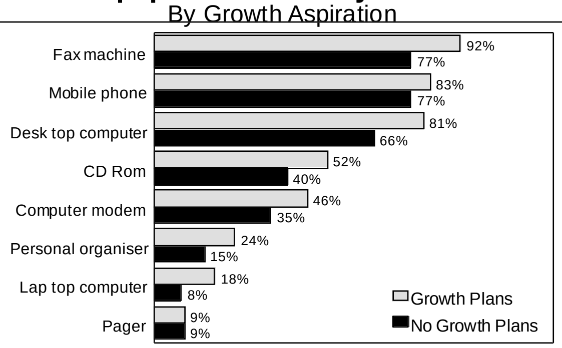
Telecommunications Equipment
Ownership By State/Territory

	Fax	Mobile Phone	Pager	Modem
All Businesses	86%	81%	9%	42%
NSW	84%	77%	10%	47%
Victoria	86%	85%	8%	38%
Queensland	88%	89%	6%	39%
South Australia	85%	74%	13%	38%
Western Australia	93%	75%	7%	43%
Tasmania	77%	64%	17%	31%
Northern Territory	95%	78%	11%	63%
ACT	73%	89%	16%	52%

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Finally, it is worth noting that businesses with growth plans are significantly more likely to be technology oriented than those with no growth aspirations.

Equipment Currently Owned
By Growth Aspiration



SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Yellow Pages

Expectations for Next Twelve Months

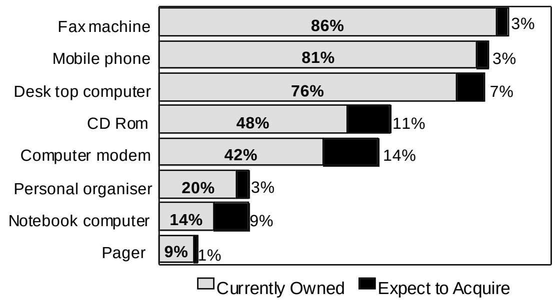
Small business proprietors were asked to indicate which items they expect to acquire (for the first time) in the coming 12 months.

These expectation levels suggest that the usage of both CD ROM and modem technology will grow quite considerably over the next twelve months.

In addition, well over 80% of small businesses could be equipped with at least a fax machine, desk top computer and mobile phone.

Whether the true growth figures will be as significant as these results suggest remains to be seen, however, given our experience of unrealised expectation over the last year.

Equipment Currently Owned
And Likely to be Acquired in Next 12 Months



SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

We also asked which items, already owned, were likely to be replaced by new or upgraded units in the next 12 months; and which items were likely to be bought as additional units to ones already owned.

As illustrated, many small business proprietors expect to both replace items and buy additional pieces of equipment.

Expectations for computer purchases are particularly high with 25% of all small businesses expecting to buy one or more replacement units and 14% expecting to buy one or more additional units.

Additional Purchases Next 12 Months

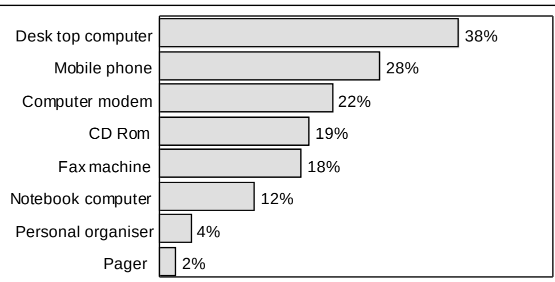
	Currently have	Expect to replace or upgrade	Expect to buy in addition
Fax machine	86%	13%	2%
Mobile phone	81%	20%	9%
Desk top computer	76%	25%	14%
CD Rom	48%	6%	4%
Computer modem	42%	5%	4%
Personal organiser	20%	1%	1%
Notebook computer	14%	3%	1%
Pager	9%	0%	0%

SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

In the chart opposite, we show the **net** proportion of all small businesses expecting to acquire for the first time, replace units or add additional units to those they already own.

As shown, nearly four in ten of all small business proprietors expect to acquire a new desk top computer in the next 12 months.

Equipment Acquisition
Net Proportion Who Expect to Acquire for the First Time, Replace or Buy Additional Units



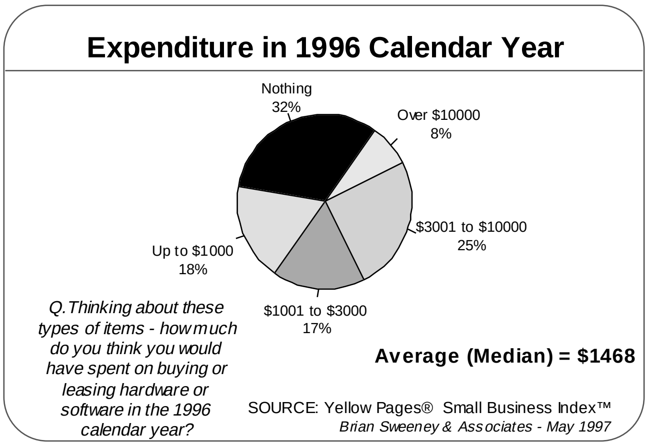
SOURCE: Yellow Pages® Small Business Index™
Brian Sweeney & Associates - May 1997

Yellow Pages

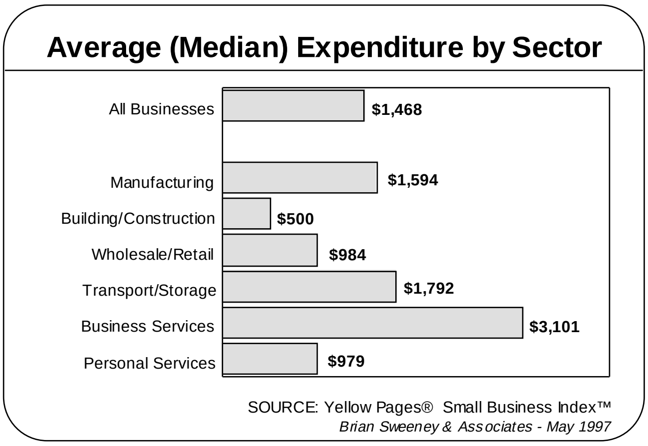
Expenditure in the Past Year

Small business proprietors were asked for their estimated expenditure on these communication and computing items in the past calendar year.

As illustrated opposite, the average (*median) expenditure across all small businesses was around $1,468 - although a small proportion spent significantly more than this. Almost one tenth, for example, spent in excess of $10,000.

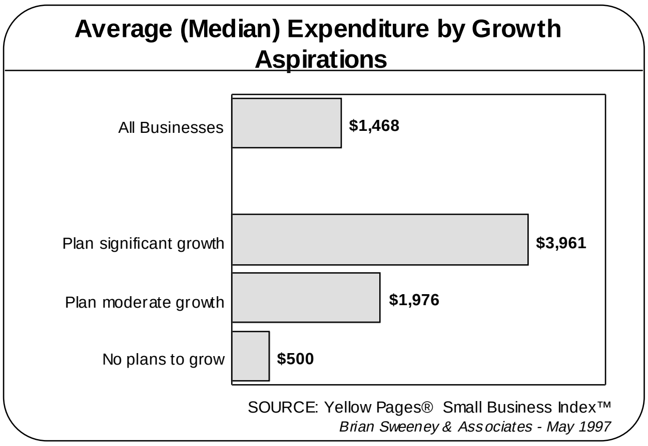


In the table opposite, we show the sizeable variations in expenditure on technology by business sector. Small businesses in the **business services** sector are the major spenders.



It is also interesting to note that those businesses planning to grow significantly are the major spenders on technology.

Indeed, while those planning significant growth represent just 7% of the total small business population, they account for 14% of the expenditure on technology.



** Median is defined as the mid-point in a set of values; half the values are larger than the median; half are smaller.*

Software Packages Used

In total, 76% of small businesses use computers in the operation of their businesses. These users were asked to indicate the types of software packages used.

As illustrated opposite, **word processing packages** are the most popular - being used by 88% of computer users. **Accounting or bookkeeping packages** are next in line, at 75%.

Just under two-thirds (65%) use **spread sheet packages** - the third most popular category.

This is followed by **data base packages**, used by 51% overall - although this drops to just 29% of those in the building/ construction sector.

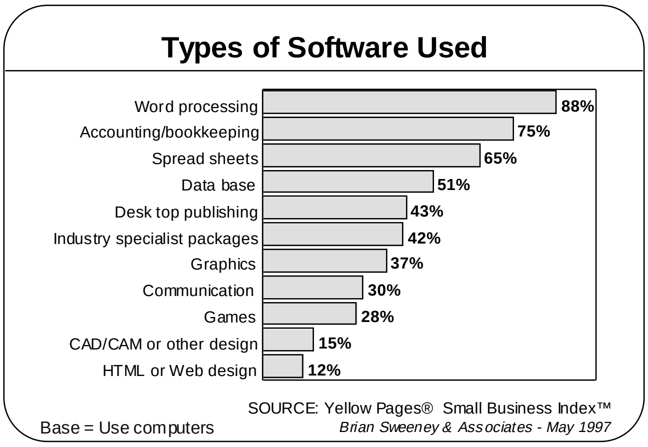
Just over four out of ten (43%) use **desk top publishing packages** and about the same proportion use **specialist packages designed for their industry** (42%).

At least one-third (37%, rising to 51% in the **business services** sector) use **graphics packages**, whilst three in ten use **communications packages**.

Across all computer users, 15% use **CAD/CAM and other design computer packages** - although this rises to 24% of those in the manufacturing sector.

At least one in ten (12%) of all computer users have acquired an **HTML** or Web design package already - with small businesses in the **business service** sector more likely to have done so than most.

Finally, close to a third relax with **computer games**!

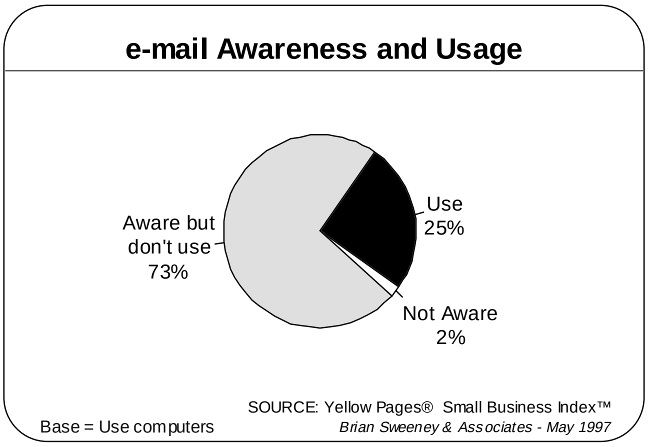


e-mail

Among computer users, virtually everyone (98%) has heard of the terms *e-mail* or *Electronic Mail* - but only 26% of these (25% of all computer users) actually use this facility.

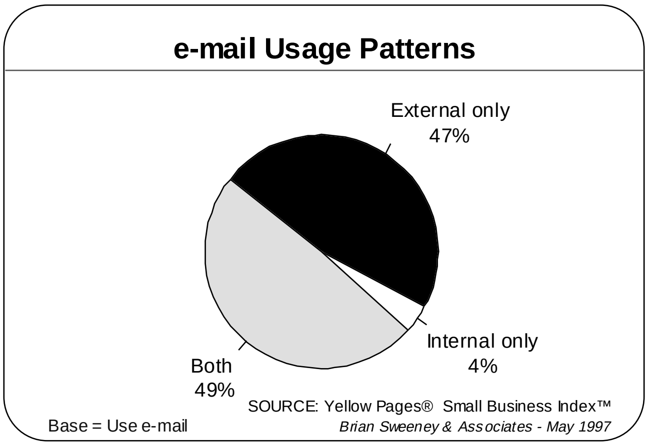
Those who are aware of the facility usually have a fair grasp of what it actually is. When asked to define e-mail, most answers centred on...

- sending letters electronically (24% mentioned);
- a way of transmitting messages between computers (19%);
- sending mail from one computer to another (19%);
- communication mail sent modem to modem (15%); and
- information transferred via Internet (10%).



e-mail users were asked whether they use the facility to communicate internally or externally. As illustrated, close to half use e-mail for both external and internal communication. In total, 96% communicate externally using e-mail; 53% internally.

Most e-mail users (89%) use e-mail as part of an Internet facility.



The Internet

A series of questions were asked about awareness and usage of the Internet.

All of those (100%) who own a computer have heard of the Internet.

Nearly thirty percent of **computer users** (23% of all small businesses) are now connected to the Internet - compared with about 12% of computer users (9% of all small businesses) one year ago.

The table opposite looks at the proportion of **all small businesses** aware of and connected to the Internet. As shown, the connection rate has more than doubled since May 1996.

Internet Awareness and Usage
Trends

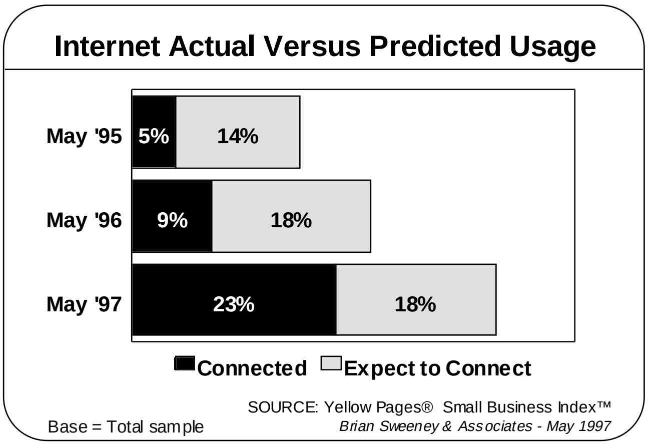
	May '95	May '96	May '97
Not aware of Internet	6%	0%	0%
Connected to Internet	5%	9%	23%
Aware but not connected	60%	65%	53%
No computer	29%	26%	24%

SOURCE: Yellow Pages® Small Business Index™
Base = Total sample *Brian Sweeney & Associates - May 1997*

However, while we have seen substantial growth, it is below the level predicted by small businesses in May 1996.

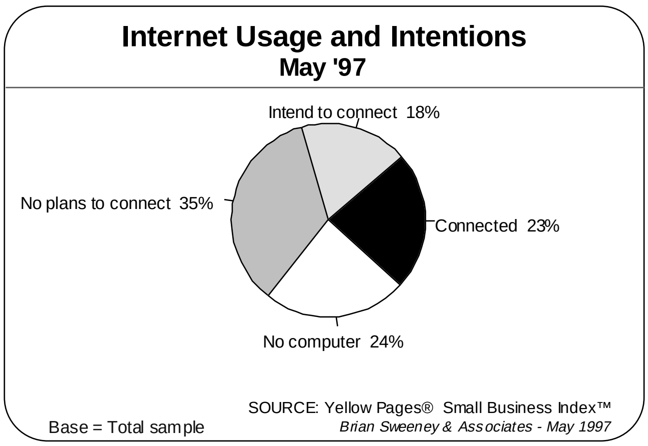
As summarised in the chart opposite, in May 1996, 9% were connected - but a further 18% said that they intended to connect in the next 12 months - a total figure of 27%. As discussed, the **actual** connection figure for May 1997 is 23%.

In other words, the incidence of connection has increased by 14 percentage points, close to the 18% predicted in May 1996.

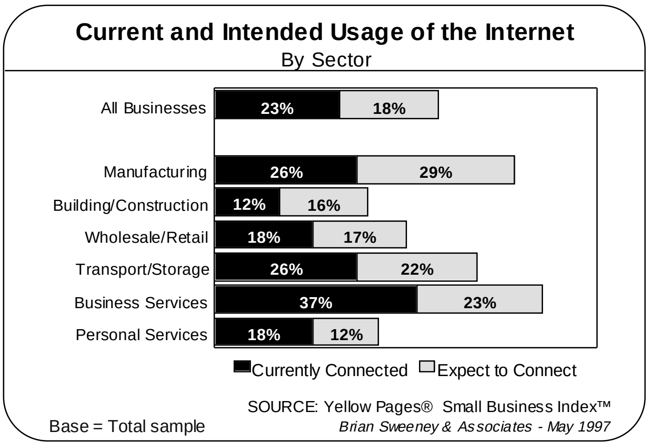


In the latest survey, we have found that 24% of **computer users** who are not yet connected to the Internet expect to connect over the next 12 months. This translates to 18% of all small businesses.

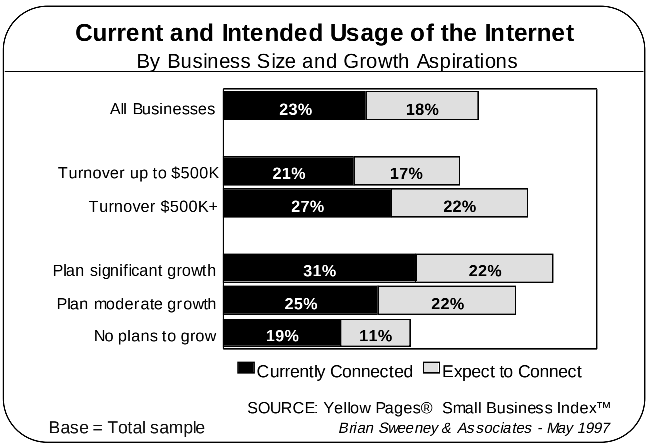
As discussed above, the expectations figure in May '96 was also 18%.



Analysis by business sector reveals that businesses in the **business services** sector are the main Internet users, with usage set to grow most substantially in the **manufacturing** sector.

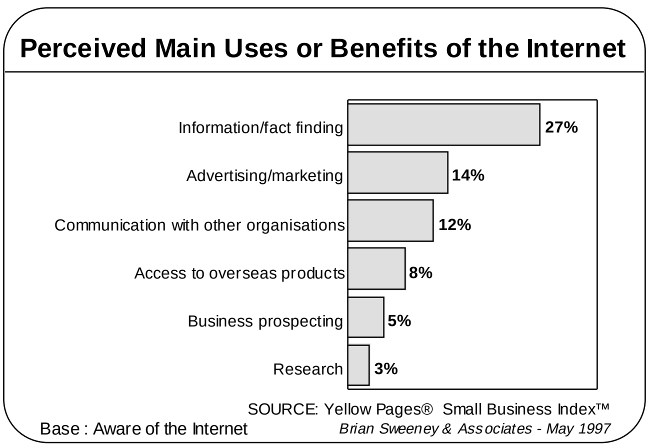


Analysis by turnover reveals the larger businesses to be somewhat more Internet oriented. The differences according to growth aspirations are, however, highly significant, with some 53% of the significant growth businesses either currently connected or expecting to connect in the future.



All respondents aware of the Internet, irrespective of whether they were connected, were asked what they saw as the main uses or benefits of the Internet.

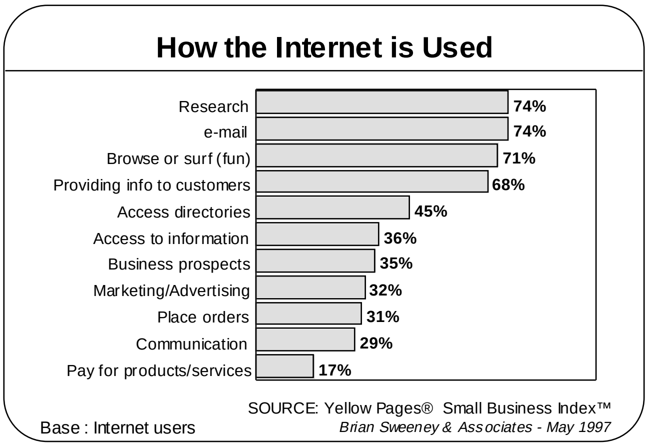
The chart opposite (which summarises responses to this **unprompted** question) shows that fact finding is seen as the number one benefit, with access to overseas products, communication with other organisations and the ability to advertise also being frequently mentioned.



Those connected to the Internet were then **prompted** with possible uses of the Internet and asked to specify for which of these the Internet had **ever** been used. Responses to this question are summarised opposite.

Access to information or research was the primary usage, although sizeable proportions used the facility...

- for e-mail;
- to browse or surf *"just for fun"*;
- to access buying directories like Yellow Pages;
- for marketing or advertising; or
- to place orders for products or services.

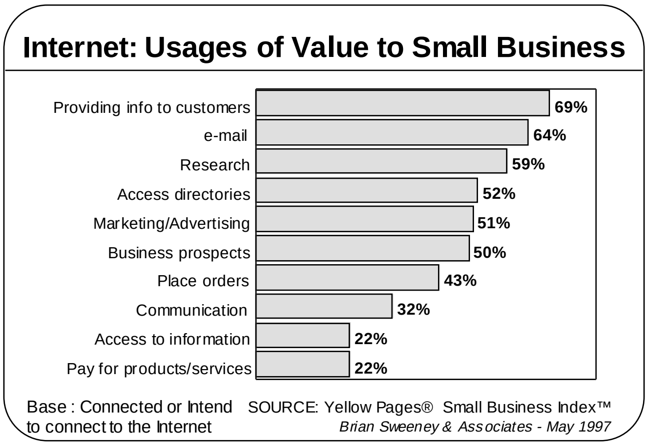


Those currently connected or who expressed an intention to connect to the Internet in the next year were asked to nominate which of the several possible usages for the Internet would be of **value** to their businesses.

Responses to this prompted question are summarised opposite.

As illustrated, the usages which are seen to be of most value are...

- to look for information about products or services which might be purchased;
- to communicate via e-mail with clients, customers or suppliers;
- to get reference information or research data;
- to access buying directories such as Yellow Pages; or
- to advertise products or services.

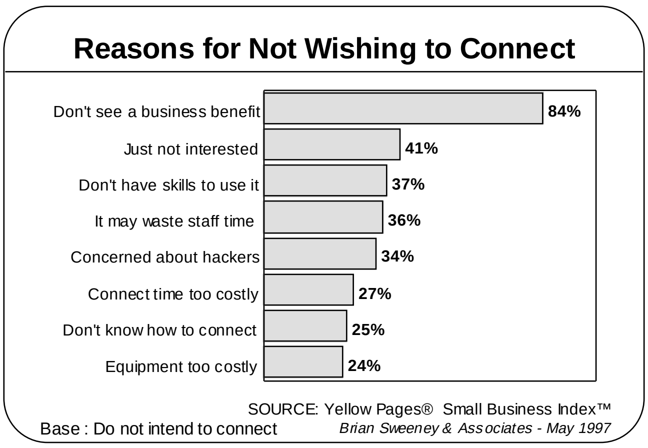


The study also looked at reasons small business proprietors did not wish to connect to the Internet. In the question, respondents were asked which of the reasons shown opposite applied to them.

The perceived lack of a business benefit was the number one reason given, although all eight factors applied to a fair degree.

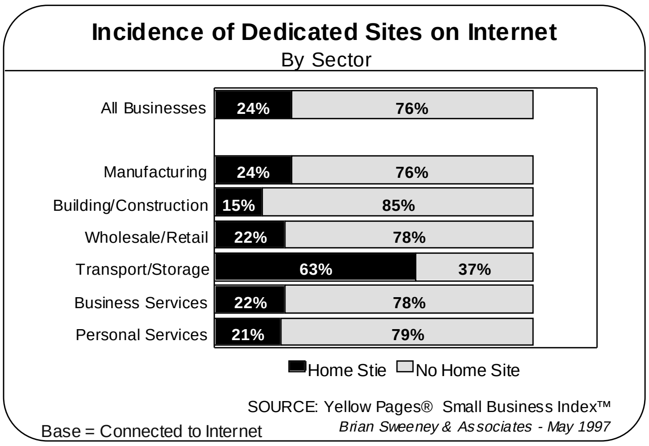
Other (unprompted) reasons included...

- too busy/don't have time (3% mentioned); and
- concerns about privacy/security (3%)



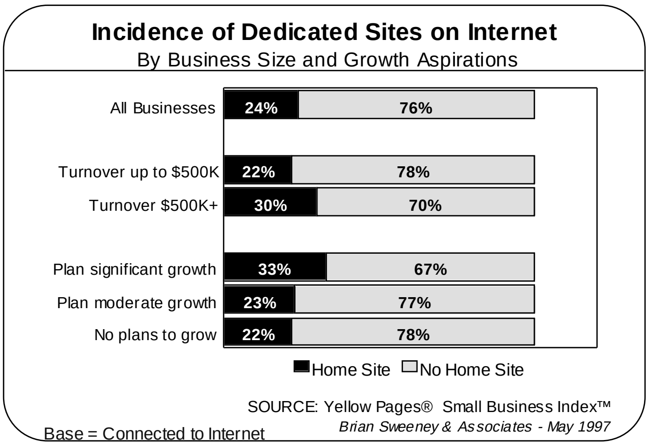
Finally, small businesses connected to the Internet were asked whether they had a dedicated web site or *“home page”* on the Internet.

As illustrated, close to a quarter (or about 6% of all small businesses) have established such a site, with those in the **transport/storage** sector significantly more likely to have done so than the average small business.



The higher turn over small businesses are somewhat more likely to already have a *“home page”* on the Internet, compared with businesses generating $500k per annum or less.

We also note that small businesses planning significant growth are more likely to already have a dedicated web site.

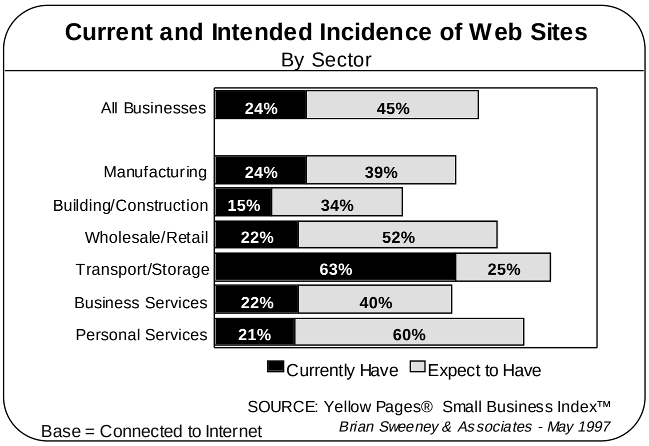


Yellow Pages

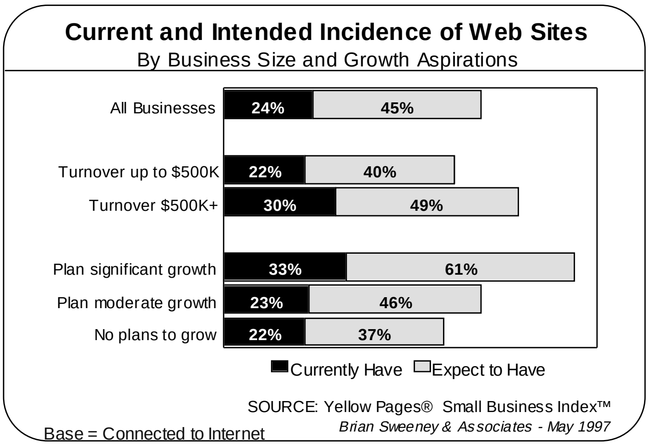
It is of interest to also look at **intentions** to establish a web site over the next year or so.

As illustrated opposite, if intentions materialise, nearly seven out of ten (69%) businesses connected to the Internet will have a *"home page"* in the next year or so.

Based on these intentions, web site incidence is set to more than triple in the **building/ construction, wholesale/retail** and **personal services** sectors.



As shown opposite, small businesses turning over more than $500k per annum and those planning significant growth are not only more likely to already have a dedicated web site - they also have a higher level of intention to establish such a site over the next twelve months or so.



Yellow Pages Small Business Index "Special Reports"

Since the inception of the Small Business Index, a range of Special Reports has been produced. Major reports include:

SOCIAL ISSUES - NOVEMBER 1993

WOMEN IN BUSINESS - JULY 1994 & FEBRUARY 1996

INDUSTRIAL RELATIONS AND THE NEW NATIONAL TRAINING WAGE - SEPTEMBER 1994

ATTITUDES TO GOVERNMENT - OCTOBER 1994 & NOVEMBER 1995

THE IMPACT OF THE DROUGHT ON RURAL SMALL BUSINESS - NOVEMBER 1994

SMALL BUSINESS GROWTH ASPIRATIONS AND THE ROLE OF EXPORTS - FEBRUARY 1995

TECHNOLOGY IN THE SMALL BUSINESS SECTOR - JULY 1995, JULY 1996, AUGUST 1997

FINANCE & BANKING ISSUES - AUGUST 1995

Other special topics investigated include NSW Bushfires, the Sydney Olympics, Exports, Australian Made and other Credential Advertising, and Employment Skills and Training.

For further information on these reports, please contact:

Yellow Pages Australia
Public Relations Department
PH: (03) 9246 4767
FAX: (03) 9246 4876

The regular *Yellow Pages* Small Business Index reports are updated each quarter (February, May, August and November). The latest report can be accessed on Australia's *Yellow Pages* site on the Internet:
http://www.yellowpages.com.au

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In Australia, Pacific Access has traded as Yellow Pages Australia with commercial responsibility for the sales, marketing, billing, compilation and customer service operations to produce 70 Yellow Pages® directories nationally.

In July 1997, Pacific Access also assumed commercial responsibility as Telstra's agent for the management and production of printed and electronic White Pages™ directories, *White Pages* and *Yellow Pages* directory production and distribution, and geo-mapping services. Pacific Access is now a full services directory company which will enable it to provide tangible benefits to customers and users.

More than 80% of Pacific Access' *Yellow Pages* directory customers are small businesses. The company is committed to supporting this vital sector of the business community though a number of initiatives such as the Small Business Index™, AUSbiz Small Business Development Program and the Yellow Pages® Business Ideas Grants.

If you have any inquiries relating to Pacific Access and its initiatives, please phone (03) 9246 4767.

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SMALL BUSINESS INDEX™

A Special Report On

Technology in the

Small Business Sector

August 1997

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Contents

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