

# **Half of Australian youth aged 18-20 are not in training**

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**A report published in University World News  
([www.universityworldnews.com](http://www.universityworldnews.com))  
Monday November 12, 2007**

## **Half of Australian youth aged 18-20 are not in training**

The number of university, TAFE and trade completions among domestic students in Australia has fallen way behind employer need. This is why there are now chronic shortages of university trained engineers, accountants and health professionals, among others, as well as tradespersons, particularly in the construction area.

There are three proximate reasons for this situation. One is that the demand for skilled persons has escalated over the past five years. The second is that the size of the prime post-school youth cohort (18 to 20 years) is relatively small (reflecting the low level of births in Australia in the late 1980s) and will stay that way over the next decade because there was only marginal increase in births in the 1990s. The third is that only half of this cohort is engaged in any form of education. As a result, if Australia is to meet its skill needs from its own young adults, there will have to be a massive increase in the educational participation rate of this group.

The 2007 election has helped to focus political attention on the skills crisis. But there is an absence of concrete proposals which address the dilemma just described. Our contribution to the debate draws on hitherto unpublished 2006 Census data which provides key new information on the issue.

Where does responsibility lie for this outcome? In the case of the university sector, it lies firmly at the Commonwealth Government's feet because enrolments in this sector are determined by the number of subsidised places financed by the Commonwealth Government. The full fees now charged by universities exceed the capacity of most Australian families and as a result only a tiny percentage of domestic students are attending university without government fee subsidisation. As regards TAFE, the Commonwealth and state governments do subsidise the system, but the determination of place numbers is more flexible and the fee structure much less punitive. In the case of the skilled trades (here referring to as the 'traditional trades' covering the metal, automotive, electrical and construction areas) the level of training largely reflects employer willingness and capacity to indenture apprentices. Government assistance by way of direct subsidies and funding to TAFE colleges contributes to this willingness, but is not the crucial determinant of the number of indentures.

This is why the focus of this report is on university training. We also discuss TAFE enrolments and the significance of their role in filling skill needs. TAFE is often incorrectly thought to be synonymous with training in the skilled trades. This is no longer the case. Most of the enrolment in vocational education at TAFE is in business services, hospitality, community services and retail courses.

### *The record of education participation*

Table 1 shows the share of persons aged 18-20 who are reported attending school, university, TAFE or other post-school educational activities in 2001 and 2006. The table includes persons who were enrolled either full-time or part-time (regardless of whether they are concurrently employed full-time, part-time or not at all).

Australia has a reasonable record of encouraging high participation rates through to year 12 in the secondary school system. The problem lies in the poor record of

continuing into university, TAFE or other post-school education. In 2006, slightly more than 50 per cent of 18 to 20 year olds were engaged in any form of education. Some 28.9 per cent were enrolled in the university sector and 14.8 per cent in TAFE and private sector vocational training (Table 1). It is true that some young adults start university and TAFE courses after age 20. But to do so requires a heavy commitment given that any consequent loss of full-time earnings becomes increasingly important with adulthood. Also, a late start often means prolonged part-time study. Australian employers need qualified people now!

**Table 1: Type of education institution attending, 18 to 20 year olds, 2001 and 2006, Australia\***

| <i>Educational situation</i>                                      | <i>Number</i>  |                |                            | <i>Percent</i> |              |
|---|----------------|----------------|----------------------------|----------------|--------------|
|   | <i>2001</i>    | <i>2006</i>    | <i>Change<br/>01 to 06</i> | <i>2001</i>    | <i>2006</i>  |
| Still at school   | 48,966         | 50,789         | 1,823                      | 6.6            | 6.9          |
| Technical or Further Educational Institution (incl TAFE Colleges) | 116,272        | 108,238        | -8,034                     | 15.6           | 14.8         |
| University or other Tertiary Institutions                         | 212,429        | 211,953        | -476                       | 28.4           | 28.9         |
| Other   | 13,856         | 12,288         | -1,568                     | 1.9            | 1.7          |
| Not attending   | 355,474        | 349,369        | -6,105                     | 47.6           | 47.7         |
| <b>Total</b>  | <b>746,997</b> | <b>732,637</b> | <b>-14,360</b>             | <b>100.0</b>   | <b>100.0</b> |

\*Table does not include 18 to 20 year olds who did not complete this question. There were 36,336 such persons in 2001 and 66,823 in 2006

See appendix one for comments on the issues of measurement

Source: ABS, Census of Population and Housing, 2001 and 2006, customised matrix held by CPUR

The Table shows that there was no improvement in university or overall educational participation of young people in the crucial early years after leaving school between 2001 to 2006. Moreover, because the size of the relevant age cohort was stable during these years, the number of 18 to 20 year olds engaged in education was largely unchanged over the five years. Yet this was a time when the economy was booming and employers were crying out for more skilled workers.

Given these participation figures, it will not surprise that domestic undergraduate completions at university have been static over recent years. The latest Australian data from the Department of Education, Science and Training show that there was only marginal growth between 2002 (earlier data is not comparable) and 2005. There were 106,162 domestic undergraduate completions in 2002 and 110,793 in 2005. In the key field of engineering, completions actually declined, from 6,062 in 2002 to 5,878 in 2005.

There was a 12.5 per cent increase in the number of Certificate III, IV and diploma courses completed from 189,600 in 2002 to 213,300 in 2005. This figure includes students from all age groups. However, consistent with the Census data reported in Table 1, the total number of enrolments in TAFE and other vocational education providers hardly changed between 2002 and 2006.<sup>1</sup>

<sup>1</sup> NCVER, 'Australian vocational and training statistics – Students and Courses, 2006 Summary', Tables 8 and 12.

By contrast, the number of young people in traditional apprenticeships has increased sharply. Figures from the National Centre for Vocational Education Research (NCVER) indicate that the number of completions in 'traditional apprenticeships' (roughly equivalent to the 'traditional trades') almost doubled from 18,012 in 2001 to 35,198 in 2006.<sup>2</sup> This increase was accompanied by, but not driven by the provision of TAFE places. Rather, it reflects the economic boom and the resultant employer need for skilled labour and confidence that they have the financial capacity to take on apprentices over the period of the indenture. Increased government financial incentives to encourage indentures has helped, but was not the main cause of the increase.

*The disjunction between training output and employer need*

In the case of university qualifications, there is an acute disconnect between the level of training and Australia's job market. ABS Labour Force figures show that over the period 2000-01 to 2006-07, the number of employed persons in Australia grew from 9 million to 10.3 million (Table 2). Of this growth in jobs, 43 per cent was in professional and managerial occupations, which these days usually require a university qualification for new entrants. An additional 23 per cent of this job growth was in associate professional occupations where about one third of those employed hold certificate and diploma qualifications and 18 per cent university degrees.<sup>3</sup>

Given this disjunction between training and employment of managers, professionals and associate professionals, where did employers find the relevant skilled persons? In large part it was from immigration. In 2005-06 alone there was a net gain of some 45,000 professionals from international movement (after taking into account the loss from net resident outflow). Most of this gain came from settler arrivals as well as a substantial net inflow of long term visitors. If these skilled workers had been drawn from domestic sources it would have required a 30 to 40 percent increase in the level of domestic university places.<sup>4</sup>

The focus on university credentials may surprise given that most of the public focus on the 'skills crisis' is on shortages in the traditional trades. However as Table 2 shows, they make up a relatively small component in the growth of the skilled work force. The net growth of 151,000 jobs in trade occupations over the 2000-01 to 2006-07 period accounted for only 12 per cent of the total employment growth in Australia during this time. Most of this growth was in the construction industries. There is likely to be further growth in demand for such skills – an issue which demands urgent attention, especially given the high level of retirements of tradespersons anticipated over the next decade or so. But, to repeat, the solution has more to do with encouraging and supporting employers to provide apprentice opportunities than with the provision of additional places in TAFE or alternative trade training locations.

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<sup>2</sup> NCVER, 'Australian vocational education and training statistics: Apprentices and trainees - December quarter 2006', Table 10.

<sup>3</sup> Birrell, B and Rapson, V., *Clearing the Myths away: Higher education's place in meeting workforce demands*, Dusseldorp Skills Forum, October 2006, p. 14.

<sup>4</sup> Birrell, B., Edwards, D. and Dobson, I, 'The widening gap between supply and demand of university graduates in Australia', *People and Place*, vol 15, no. 2, 2007, p. 75.

**Table 2: Employment change by occupation, 2000-01 to 2006-07, Australia<sup>^</sup>**

| <i>Occupation</i>             | <i>Employed '000s</i> |                |                        | <i>% Share of change 01 to 07*</i> |
|-------------------------------|-----------------------|----------------|------------------------|------------------------------------|
|                               | <i>2000-01</i>        | <i>2006-07</i> | <i>Change 01 to 07</i> |                                    |
| Managers (excl farm managers) | 431                   | 651            | 220                    | 17                                 |
| Professionals                 | 1,660                 | 1,991          | 331                    | 26                                 |
| Associate Professionals       | 1,038                 | 1,331          | 293                    | 23                                 |
| Trades                        | 1,159                 | 1,310          | 151                    | 12                                 |
| All other occupations         | 4,728                 | 5,019          | 291                    | 23                                 |
| <b>Total employed</b>         | <b>9,016</b>          | <b>10,302</b>  | <b>1,286</b>           | <b>100</b>                         |

<sup>^</sup>Numbers of persons are average of quarterly data for each year.

\* Total does not add to 100 due to rounding

Source: ABS Labour Force, Detailed, Quarterly, Table ST E08\_Aug96

### *What are young adults not in training doing?*

The discussion so far confirms that job growth in Australia is primarily about demand for employees with post-school credentials. For the period from 2000-01 to 2006-07, around 78 per cent of the net job growth in Australia was in the managerial, professional, associate professional or trade occupations, all of which normally require a formal post-school qualification. Yet, as noted, only half of Australians aged 18 to 20 were enrolled in any form of education in 2006.

The strength of the Australian labour market helps explain why some young people prefer to take up service or semi-skilled employment rather than post-school training – the former at least puts money in their pocket. However, the Census data show that only 48 per cent of 18 to 20 year olds who were not enrolled in any form of education in 2006 were employed full time (Table 3). Of the rest, 22.1 per cent were working part-time, 5.5 per cent were employed but not at work at the time of the Census 10.9 per cent were unemployed and looking for work, and 13.5 per cent were not in the labour force. This situation constitutes a double tragedy, for the young people not in training, who will lack the qualifications needed to compete in the new economy and for the nation, in that the idle time of those not employed full time could have been put to productive training.

**Table 3: Labour force status of 18 to 20 year olds not attending any form of education, 2006, Australia**

| <i>Labour force status</i>            | <i>Number</i>  | <i>Percent</i> |
|---------------------------------------|----------------|----------------|
| Employed, worked full-time            | 165,374        | 48.0           |
| Employed, worked part-time            | 76,047         | 22.1           |
| Employed, away from work <sup>^</sup> | 18,987         | 5.5            |
| Unemployed, looking for f/t work      | 31,995         | 9.3            |
| Unemployed, looking for p/t work      | 5,676          | 1.6            |
| Not in the labour force               | 46,521         | 13.5           |
| <b>Total*</b>                         | <b>344,600</b> | <b>100.0</b>   |

\*Figure does not include persons in this group who did not state their labour force status

<sup>^</sup>This category includes persons who were on leave, on strike or did not state the number of hours worked in the week preceding Census night.

Source: ABS, Census of Population and Housing, 2006, customised matrix held by CPUR

*A spatial analysis of the problem – focussing on Federal Electorates*

Individual politicians can hardly be blamed for a systemic problem. Nonetheless, it may sharpen the minds of incumbents, challengers and their constituencies alike if they know the situation in their electorate. The diversity this brief review reveals also gives an indication of what is driving the education participation rates of young adults.

First the big picture, Table 4 shows the proportions of 18 to 20 year olds attending and not attending an education institution by capital city and rest of state across Australia. Melbourne stands out as the capital city with the lowest non-attendance rate (34.3 per cent). By this standard, Brisbane and Perth look particularly poor, since in both cases large shares (49.6 per cent in Brisbane and 48.2 per cent in Perth) of 18 to 20 year olds were not attending any form of education. In the case of Brisbane, the reason for this situation is very low TAFE enrolments – just 10.5 per cent, compared with 17 per cent in Melbourne and 17.4 per cent in Sydney. These figures are a severe indictment on the Queensland and Western Australian governments, since this shortfall in the training of their own young people comes during a resource boom, when local employers are crying out for more skilled persons.

As might be expected, the regional areas of Australia are struggling to provide post-school training opportunities for their young people. Nonetheless, the 67.3 per cent non-participation figure for regional Queensland and the 77.1 per cent figure for regional Western Australia are shocking. It is not that all these young people are engaged in semi-skilled mining work. Only 51.8 per cent of young people in regional Queensland who are not engaged in education are employed full-time and 51.5 per cent in regional Western Australia.

**Table 4: Type of education institution attending, 18 to 20 year olds by capital city and balance of state, 2001 and 2006, Australia\***

| Capital City or Balance of state | Percent         |  |   |            |               | Total        | Total Number*  |
|----------------------------------|-----------------|--|---|------------|---------------|--------------|----------------|
|                                  | Still at school | Technical or Further Educational Institution (incl TAFE) | University or other Tertiary Institutions | Other      | Not Attending |              |                |
| Sydney                           | 8.1             | 17.4   | 34.3                                      | 2.0        | 38.2          | 100.0        | 149,937        |
| Rest of NSW                      | 8.4             | 17.2   | 18.8                                      | 1.4        | 54.2          | 100.0        | 83,491         |
| <b>Total NSW</b>                 | <b>8.2</b>      | <b>17.4</b>  | <b>28.8</b>                               | <b>1.8</b> | <b>43.9</b>   | <b>100.0</b> | <b>233,428</b> |
| Melbourne                        | 10.0            | 17.0   | 36.7                                      | 1.9        | 34.3          | 100.0        | 138,653        |
| Rest of Vic                      | 12.4            | 14.5   | 17.6                                      | 2.0        | 53.5          | 100.0        | 46,183         |
| <b>Total Vic</b>                 | <b>10.6</b>     | <b>16.4</b>  | <b>31.9</b>                               | <b>1.9</b> | <b>39.1</b>   | <b>100.0</b> | <b>184,836</b> |
| Brisbane                         | 2.6             | 10.5   | 35.7                                      | 1.6        | 49.6          | 100.0        | 71,388         |
| Rest of Qld                      | 2.3             | 10.0   | 19.1                                      | 1.2        | 67.3          | 100.0        | 73,009         |
| <b>Total Qld</b>                 | <b>2.5</b>      | <b>10.2</b>  | <b>27.3</b>                               | <b>1.4</b> | <b>58.5</b>   | <b>100.0</b> | <b>144,397</b> |
| Adelaide                         | 6.8             | 12.6   | 32.2                                      | 1.8        | 46.6          | 100.0        | 42,992         |
| Rest of SA                       | 6.4             | 13.6   | 9.9                                       | 1.2        | 68.8          | 100.0        | 13,105         |
| <b>Total SA</b>                  | <b>6.7</b>      | <b>12.8</b>  | <b>27.0</b>                               | <b>1.7</b> | <b>51.8</b>   | <b>100.0</b> | <b>56,097</b>  |
| Perth                            | 2.3             | 13.9   | 34.2                                      | 1.4        | 48.2          | 100.0        | 59,783         |
| Rest of WA                       | 1.4             | 14.0   | 6.7                                       | 0.9        | 77.1          | 100.0        | 15,284         |
| <b>Total WA</b>                  | <b>2.1</b>      | <b>13.9</b>  | <b>28.6</b>                               | <b>1.3</b> | <b>54.0</b>   | <b>100.0</b> | <b>75,067</b>  |
| Hobart                           | 9.6             | 13.8   | 28.2                                      | 1.0        | 47.4          | 100.0        | 7,883          |
| Rest of Tas                      | 7.5             | 14.8   | 13.9                                      | 1.6        | 62.2          | 100.0        | 9,250          |
| <b>Total Tas</b>                 | <b>8.5</b>      | <b>14.3</b>  | <b>20.5</b>                               | <b>1.3</b> | <b>55.4</b>   | <b>100.0</b> | <b>17,133</b>  |
| Darwin                           | 5.6             | 6.1  | 13.0                                      | 1.4        | 73.9          | 100.0        | 4,906          |
| Rest of NT                       | 5.3             | 5.3  | 3.4                                       | 1.1        | 84.9          | 100.0        | 2,173          |
| <b>Total NT</b>                  | <b>5.5</b>      | <b>5.8</b>   | <b>10.1</b>                               | <b>1.3</b> | <b>77.3</b>   | <b>100.0</b> | <b>7,079</b>   |
| <b>Total ACT</b>                 | <b>8.6</b>      | <b>14.7</b>  | <b>37.7</b>                               | <b>1.8</b> | <b>37.2</b>   | <b>100.0</b> | <b>14,535</b>  |
| Other territories                | 0.0             | 9.2  | 9.2                                       | 9.2        | 72.3          | 100.0        | 65             |
| <b>Total Australia</b>           | <b>6.9</b>      | <b>14.8</b>  | <b>28.9</b>                               | <b>1.7</b> | <b>47.7</b>   | <b>100.0</b> | <b>732,637</b> |

\* Figures do not include those who did not complete this question, there were 66,823 such persons in 2006.

Source: ABS, Census of Population and Housing 2006, customised matrix held by CPUR

Within each metropolitan area, there are large disparities in attendance rates which partly reflect the socioeconomic status of the electorate and partly the proximity to

university and TAFE campuses. (See Supplementary Table showing educational participation rates for each federal electorate and the labour force status of those not participating in education). In Perth, the highest participation rate is in the electorate of Curtin, which is represented by the Minister for Education Science and Training, Julie Bishop. In Curtin, 64.6 per cent of the 18 to 20 year old age group was attending a university in 2006 and only 23.4 per cent of the age group were not enrolled in any education institution. By contrast, in the adjacent seat of Perth, held by the Shadow Minister for Education, Stephen Smith, only 33.2 per cent of the 18 to 20 year old age group were attending a university and 47.7 per cent were not engaged in any form of education. These participation rates largely reflect the high socioeconomic status of the Curtin electorate relative to the electorate of Perth and the fact that Curtin encompasses the large campus of the University of Western Australia.

In Melbourne, the association between high socioeconomic status and educational attendance – particularly at university – is exemplified in the electorate of Higgins, held by Treasurer, Peter Costello, where 57.4 per cent of the 18 to 20 year age group was attending university and only 18.1 per cent were not enrolled in any form of education. The figures for the affluent electorate of Kooyong, held by Liberal backbencher, Petro Georgio, were even more striking. There, 60.4 per cent of this age cohort was attending university and only 14.8 per cent were not participating in any education.

However, socioeconomic status is not the only determinant of education attendance. There is also a clear ‘inner versus outer’ metropolitan attendance divide which is only marginally related to the socioeconomic status of the electors. The data show that there are relatively low education participation levels in the home-owning, but modest income outer suburban mortgage belt electorates. This applies whether the seats are held by the Labor or Liberal parties. This outcome partly reflects the financial pressures on the families in question and thus the difficulties students face in financing their education and partly the relative inaccessibility of educational institutions in these areas.

For example, in Lalor, an outer western suburbs seat held by Deputy Labor Leader, Julia Gillard, only 20.6 per cent of 18 to 20 year olds were attending university and 50.8 per cent were not enrolled in any education institution. Of the non-attendees, well under half (45.7 per cent) were employed full-time and a high 13.8 per cent were unemployed and another 13.7 per cent were not in the labour force. In the seat of Holt, held by the Labor MP Anthony Byrne, which covers Melbourne’s outer south eastern suburbs of Narre Warren and Cranbourne, only 19.9 per cent of this age group attended a university and 49.2 per cent were not participating in any type of education. In the adjoining outer suburban seat of LaTrobe held by Liberal MP Jason Wood, the situation was similar, with only 22.6 per cent attending a university and 45.8 per cent not engaged in any education. As with Gillard’s seat, less than half (49.4 per cent) of those not attending in La Trobe were employed full-time.

The pattern in Sydney is similar. In Prime Minister, John Howard’s seat of Bennelong, 54.6 per cent of the 18 to 20 year olds attend university and only 22.3 per cent do not participate in education. However, in the outer suburban Labor seat of Chifley, held by Roger Price, only 18.9 per cent of this age group attended university and 54.1 per cent were not enrolled in any form of education in 2006. Of these only 39.5 per cent

were employed full-time. Again, this is a pattern which crosses the political divide. In the nearby outer north western electorate of Greenway, held by the Liberal party's Louise Markus only 21 per cent attended university and 50.4 per cent were not participating in any form of education. The situation was even worse in retiring Liberal MP, Jackie Kelly's urban fringe seat of Lindsay, where just 17.1 per cent attended a university and 57.6 per cent were not engaged in any form of education. Of the latter only 49.6 per cent were employed full-time.

In Brisbane, the pattern of attendance at university compares with that of Melbourne and Sydney. It is the low level of TAFE enrolment that marks out the city and the rest of Queensland as a poor performer in post school education participation. In Labor Leader, Kevin Rudd's relatively affluent Brisbane seat of Griffith, 41.6 per cent of the 18 to 20 year olds were attending university, yet 43.3 per cent were not attending any form of education. The explanation for this relatively low overall participation in education is that only 11.1 per cent of the age group in Rudd's electorate were attending a TAFE institution. Likewise, in Shadow Treasurer, Wayne Swan's electorate of Lilley, to the north of the city centre, attendance at university among the 18 to 20 year age group was 33.1 per cent and 10.7 per cent in TAFE. Fifty-one percent of the age cohort in Lilley were not attending any form of education. Further north, in the Liberal, Peter Slipper's seat of Fisher on the Sunshine Coast, only 17.1 per cent were attending university and 10.4 per cent TAFE. A massive 68.6 per cent of the 18 to 20 year old cohort in this electorate were not participating in any formal education course in 2006.

#### *What is to be done?*

Two assertions seem incontrovertible. One is that the level of educational participation on the part of young adult Australians is far too low given that most of the job growth in Australia is in occupations that require post-school credentials. The second is that there is a desperate need in Australia for more highly skilled workers with university, TAFE and trade qualifications.

Both major parties have acknowledged the depth of the skills crisis and Labor, in particular, has claimed that it wants to institute an 'Education Revolution'. The need is certainly there, but (at the time this report went to press), the contenders have not given any precise information as to how they are going to fill the gaps identified above.

Both parties have outlined policies to address the 'trades shortages', with funding for new technical colleges and for vocational education facilities in schools announced during the election campaign. These policies are to be welcomed, especially if they help raise the productivity of new apprentices and thus encourage employers to take on additional apprentices.

The major gap in addressing the skills issue lies with higher education policy. In the case of the Coalition, the Minister, Julie Bishop has been insisting that the recent (welcome) increase in university places in the health and engineering fields solves the problem. However, even when the Coalition's newly announced extra places are filled, they will only lead to a marginal increase in the total number of places available in Australian universities by comparison with the level a decade ago. If the great gulf in the output of professionally trained persons is to be filled from

domestic sources it will require a very large increase in the number of subsidised HECS places.

In the case of Labor, the commitment to investment in education is admirable. What is missing so far is any concrete indication of how many extra places in the higher education sector an incoming Labor government would finance.

Furthermore, neither party has indicated how they are going to increase incentives for young people to take up university or TAFE places if the numbers are increased. Since it came to office, the Coalition has reduced access to the higher education Youth Allowance and increased the HECs fees students must pay. Despite repeated denials by the Commonwealth Education Minister, these decisions constitute a serious disincentive for many young people contemplating post-school education. This is likely to be especially the case for outer suburban families struggling with mortgages who would have to provide the living expenses for university-aged children. In addition, neither party has addressed the issue of physical access to places in the university and TAFE sector. As indicated, prospective students living in outer suburban electorates are at a grave disadvantage in this respect.

An 'educational revolution' for Australian youth is required. Since almost 50 per cent of 18-20 year olds are outside the education system, there are plenty of potential recipients of such a revolution. What is needed is the political will to finance the training places and create a far more welcoming environment which will encourage young people to take up these places.

#### *Appendix One – Note on educational attendance calculation*

The non-attending rate identified in Table 1 is an approximation. Some youths aged 18-20 would have completed post-school qualifications, especially in the vocational area. On the other hand, Table 1 shows that 5.3 per cent of 18-20 year old in 2006 were still at school. If they follow the pattern of other youths in their age group, half will not enrol in any post school education when they leave school. These two factors probably balance out, but nonetheless the non-participation rate identified in Table 1 should be interpreted with these qualifications in mind.

#### *References*

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