

DEMAND FOR HIGHER EDUCATION

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Introduction

There appears to be a widely held view that the current "steady state" in tertiary education is a function of the government's strategy of reducing public expenditure as part of its attack on inflation. Implied in this view is the expectation that when the economy returns to a healthy state, the steady state will be over. Professor Karmel helped to dispel this view in his talk last night. One reason to expect a continuation of the steady state is that there appears to be little chance of any growth in demand for tertiary education.

Demand for Tertiary Education

Predictions of future tertiary numbers are usually based on trends in three factors:

1. The number of people in the age cohort.
2. The proportion (of those entering) who complete secondary school - the secondary retention rate.
3. The proportion (of secondary school graduates) who proceed to tertiary education - tertiary participation rate.

Tables 1 and 2 give data relevant to factors 1 and 2. Table 1 contains the projections of numbers in the 17-22 year age cohorts for the rest of this century (Borrie Report). It seems reasonable to conclude that even with a high rate of net immigration there is little growth potential in this factor. A levelling out of the secondary retention rates is evident in Table 2. In fact, the male rate has been steady for some time and recent growth in the overall rate has been due to continued increases in the female rate. One can argue that a 34% secondary retention rate is low in comparison to some other countries (e.g. U.S.A.) and that there is considerable growth potential in this factor. However, it seems more likely that the levelling out of the school retention rate will continue, offering no growth potential from this factor. This is supported by the levelling out in all sectors of the system, even where the retention rate is traditionally higher or lower than the national average.

TABLE 1

17-22 YEAR OLDS IN AUSTRALIA 1976-2001

	Number ('000)	Annual Rate of Increase
1976	1,424	+ 1.7
1981	1,541	+ 1.6
1986	1,507	- 0.4
1991	1,608	+ 1.3
1996	1,471	- 1.8
2001	1,553	+ 1.0

Assumes net immigration rate of 50,000 p.a.

(Source: Borrie Report, 1975)

TABLE 2

SCHOOL RETENTION RATES

PERCENTAGE, FINAL YEAR TO FIRST YEAR, ALL AUSTRALIA

	Males	Females	Total
1970	33.0	25.5	29.3
1971	34.2	26.6	30.6
1972	35.7	28.9	32.4
1973	35.2	30.8	33.1
1974	34.1	31.7	32.9
1975	34.6	33.6	34.1

(Source: Commonwealth Department of Education 1976)

The third factor, tertiary participation rate, appears to be the crucial one for predicting future demand trends. I think that current patterns of graduate employment make nonsense of extrapolations of past trends in this factor. It seems inevitable that we are about to enter an era of increasing graduate underemployment - i.e. tertiary graduates will need to accept employment for which tertiary education is not necessary.

An indication of the extent of this can be obtained from an examination of current graduate employment. Over 40 percent of university graduates seeking employment after graduating are absorbed in teaching (Table 3) - a market that is about to contract. This means that there will be a sharp decline in demand from the major employer of university graduates. Similar problems will exist, at least in the short term, for "other government" employment, although this is related directly to the government's economic policy to cut back on public expenditure. Further data is included (Table 4) for physical science graduates from universities and C.A.E.'s which show similar patterns - indicating that this is not just a problem with humanities graduates. If the 40.5 percent proceeding to higher degrees are excluded, 40.7 percent of 1973 university physical science graduates seeking employment in 1974 were employed in teaching.

TABLE 3

EMPLOYMENT (BY APRIL 30) OF UNIVERSITY
GRADUATES NOT ENTERING FURTHER STUDY

	1973	1974
Education	42.0	40.4
Other Government	30.2	29.6
Other Private	24.2	26.3
Unemployed	3.6	3.7

(Source: A.U.C. Sixth Report)

TABLE 4

EMPLOYMENT OF 1973 PHYSICAL SCIENCE GRADUATES

	All Uni's (N = 754) %	5 CAE's (N = 132) %
Teaching, teacher training	27.7	25.0
Industry, commerce	10.5	42.4
Government, semi government	5.4	22.7
Unemployed	4.5	3.8
Higher degrees (inc. honours)	40.5	2.2

(Source: G.C.C.A. 1975)

There has been little discussion of this in public forums: the employment of a university graduate as a tram driver was sufficiently novel to be treated as a news item in the Melbourne press recently. As the incidence of underemployment increases and as public knowledge about it increases, one can anticipate two ways in which the tertiary participation rate will decline:

1. Students may elect not to continue to tertiary education.
2. It may become politically acceptable to cut back on the number of tertiary places available.

One argument against the first of these is that while a high level of unemployment continues, being a tertiary student may be preferable to being unemployed, and a further qualification may be perceived as improving the chance of obtaining employment. However, current tertiary entrants are very "starry-eyed" about their employment prospects. Of the entrants to the Science Faculty at Monash University this year, 45.6 percent rated as a very important factor in influencing their decision to undertake a university course "it will enable me to get a good job". The next highest rated factor, "as a means of finding self-understanding", was considered very important by only 18.0 percent. A further 78.6 percent thought it either very likely or possible that they could get a position as a scientist and 36.8 percent as a lecturer in a university, college of advanced education, or State college (West, 1977). In the light of these figures, it is hard to see the desire to undertake a tertiary course being maintained at current rates when graduate underemployment becomes significant.

Even if such a decline in student demands does not occur, there is still the likelihood of politically acceptable cut-backs. The government has recently changed tertiary funding from being enrolment-driven to the funding of a fixed number of places without regard for demand - and this without any serious political backlash. At the same time, tertiary institutions are coming increasingly under examination by the press. It is clear that the public views the function of tertiary institutions as a training one, providing the manpower needs of the community. As the manpower needs appear to become satisfied, political opposition to cutbacks in tertiary education will decline and in time it may become a political "plus" for the government to make further cuts in tertiary education.

Whether one or both of these predictions take place, the most optimistic future with respect to the intake is likely to be zero growth, with decreases in the intake a distinct possibility.

Some Alternative Areas of Demand

Should tertiary institutions (and in fact the community) accept a zero growth as the long term state? What are the implications? Leaving aside the purely selfish, but nonetheless important implication that some of us may be without jobs, there are serious undesirable implications of a continuing steady state. Training is not the only function of tertiary institutions. A decline in the contribution of Australians to the academic disciplines through their research, a dearth of young bright people entering the disciplines, a reluctance of academics to criticise the social system, a dearth of experts able and willing to contribute to matters of public and national importance and the development of anti-intellectualism, are just some of the likely undesirable aspects of long term zero growth in tertiary education.

It is my view that we should work against a long term steady state. One way to do this is to actively seek alternative demand. This is not just a piece of selfish opportunism. A decline in areas of past demand allows the opportunity for expansion into areas that have been for too long neglected. In addition, development of new areas in tertiary education will provide solutions to serious problems facing our society in the future.

I conclude by offering a few suggestions. In addition to representing real needs or providing solutions to new problems, such suggestions for alternative areas of demand need to have political attractiveness. My list is certainly not exhaustive and I hope it will generate more ideas.

1. Mature age students. There is already considerable incidence of mature age students entering tertiary courses. In the last few years most institutions have introduced special entry provisions for such students. What will be the future demand? Should tertiary institutions provide special courses for this type of student? It seems clear that the continuing education movement is not just a function of a trendy Labor Government encouraging people not to work: it is a movement that is gaining momentum in many countries. In the future it will become increasingly difficult to

maintain full employment. Some suggest that paid educational leave will be politically more acceptable than shorter working hours (McDonnell, 1977). Retraining could become of increasing importance. Others have suggested that education might become the new consumerism - an alternative to the high energy and resource-using consumer goods of the last decades (Birrell, 1977). These are avenues of continued growth in mature age student entrants that provide for real demands and which offer solutions to serious social problems.

2. Non-research oriented postgraduate degrees. As a need for research trained personnel declines, there is no need for a decline in postgraduate degree training - just a change in its direction. With the continued information explosion in the sciences there is more need for information-oriented postgraduate degrees. This implies that these be course work and possibly part-time, but that does not mean they are "poorer" than research oriented degrees. The clientele is wide: school teachers, industrial scientists, economists, etc.

3. Manpower needs - related capping courses. There is a curious paradox in the problem of meeting community manpower needs. Undoubtedly one of the roles of tertiary institutions is to provide the community with the trained people it requires. However, the time lag between identifying specific areas of need and training people for these, is so great that usually manpower planning is totally inefficient. (In Australia the best example of this was the expected requirement for geologists as a result of the mining boom and the subsequent vast oversupply of geologists a few years later.) One solution to this would be to provide generalist first degrees and to implement special job training in short (say, one year) capping courses. Thus if there is a need for geologists, science graduates could be recruited into a short course concentrating exclusively on geology. The previous science training of the entrants would enable their training in specific fields of geology to be completed in a short time. Such courses would also be quick to set up and easy to dismantle to accommodate rapid changes in manpower requirements.

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