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Ideological and theoretical underpinnings of the New Zealand education reforms

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ABSTRACT
The education reforms, which began in the late 1980s, have their basis in a number of ideological and theoretical foundations. We briefly review New Right ideology, public choice theory, agency theory and managerialism. We then centre on the origins, strengths and weaknesses of human capital theory and the assumptions implicit in an uncritical application of the theory to education in a free market context.

Introduction

Education policy cannot be divorced from the wider political and economic conditions that mould the policy. Reform across all levels of the education system and a change in training strategies for the workforce, including the unemployed, has characterised the post 1984 transformation of New Zealand's welfare state (de Bruin, 1997). This paper focuses on the underlying ideological and theoretical foundations of the education reforms, leaving the wider economic circumstances for reform to be discussed in the paper that follows.

At the political level, 'New Right' ideology has been an overarching driving force behind reforms in education and in wider state governed activity. Lauder (1991:417) suggests that the 'New Right' movement (also variously referred to as 'neo-liberalism' or 'radical conservatism') is not 'new', but comprises largely conservative forces who hold the education system and its curriculum responsible for not only economic failure, but also for social breakdown as a whole. Bureaucratic educational systems are viewed as a component of 'a wider problem of state-induced dependency', with the liberalisation of education from the state offering 'a form of national and cultural revitalization' (Lauder et al., 1999:5). This ideology has permeated the education reform agenda in New Zealand.

New Right ideology, in general, draws on a number of theories chiefly public choice theory, agency theory and managerialism. This paper briefly reviews each of these theories. This is followed by a detailed examination of human capital theory, a key theory behind the education reforms. Here, a discussion of the basis of support for the theory and the implications for education if the theory were to be accepted is included. Criticisms of human capital theory are also examined and alternative theories discussed. Finally, implications for education participation in a 'free market' context are discussed.

Public choice theory and agency theory

Public choice theory is central to the reform movement. The theory assumes that human behaviour is driven by self-interest and the desire to maximise one's own economic potential or other self-interests, which results in (mostly) socially desirable outcomes. In the private sector, self-interest is disciplined and held in check by the market. This discipline is lacking in the political/public sector, allowing self-interest (reflected by organisational size, budgets and salaries) to dominate, with damaging consequences for the economy (e.g. Gordon, 1995: 55). The consequences are unnecessary growth of the state and "ever increasing quantities of resources being absorbed" (Boston, 1991:3). The theory implies that, without market discipline, additional socially undesirable consequences occur, such as "rent seeking behaviour, what has become more popularly known as 'provider capture"' (Lauder, 1991: 421). The application of public choice theory by policy makers has led to a push toward a reduction in the role of the state and a corresponding reduction of public monopolies and thus increased competition among suppliers of services such as education, together with an emphasis on efficient use of resources.

Like public choice theory, agency theory assumes individuals are rational, self interested utility maximisers, but rests on the notion that social and political life can be understood as a series of contracts. Agency theory focuses particularly on how agents (e.g. educational institutions as 'agents' of central government) can be motivated to work against their own self-interest and to pursue the goals of others. Accordingly, the Government (principal) should only contract out its services (or, in the case of education, fund providers to provide services) when there are enough checks and balances in place to ensure that agents (the educational providers) will not be able to exploit their contracts and thereby waste public funds.

Gordon (1995:55) suggests that the "tenets of agency theory have been widely applied in the public sector in New Zealand and have been used to shape and control the schooling system". She argues that agency theory has led to two forms of solutions: the first "stresses the need for scrutiny of, and accountability by, the agent", the second binds the interests of the agent to those of the principal (as in incentive systems, or in the polytechnic sector, input controls such as the specification of the number of student places to be funded in specific educational programmes). Contestable funding, with competitive tendering for training contracts, accompanied by detailed negotiation and contract specification is a tool being increasingly used as a control device.

Managerialism or new public management

According to Pollitt (1990:49), "managerialism is the 'acceptable face' of new-right thinking concerning the state". Pollitt also notes that there is the assumption in managerialism that 'better management' will provide an effective solution for a wide range of economic and social ills. Its strongest critics postulate that managerialism has two distinct (but, they suggest, fraudulent) claims (Reese, 1995:15). The first is that efficient management can solve almost any problem. The second is that management practices, which are appropriate for the conduct of private sector enterprises, can also be applied to public sector services. Pollitt (1990:49) observes that "better management provides a label under which private sector disciplines can be introduced to the public service, political control can be strengthened, budgets trimmed, professional autonomy reduced, public service unions weakened and quasi-competitive frameworks erected to flush out the natural inefficiencies of bureaucracies". The popularity of managerialism has been driven "primarily by practitioners and private sector consultants" (Boston et al., 1996:25), rather than academics. This may in part explain the dearth of empirical evidence to support claims of the benefits of managerialism. Evidence presented by such consultants and embraced by policy makers (e.g. Treasury, 1984; 1987) of greater efficiency of the private sector implies that direct comparisons between the two can in fact be made. The alternative view, that the two sectors provide quite

different management challenges, has not been reflected in the policy decisions made to reform the public sector.[1]

While it is suggested that managerialism's foundations can be traced to the late 19th century and Taylorism, it is noted "the ideas of the older managerialist tradition have received new life since the mid 1980s" (Boston et al., 1996:25). From this blending of traditional managerialism with a range of theories endorsed by the New Right has come the 'New Public Management' (see, e.g. Hood, 1991; Osborne and Gaebler, 1992), which focuses on accountability for results, devolution of management control and support for private ownership, short term contracting for services and contestable funding. The foundations of this thinking can be traced to both public choice theory and agency theory and the influence of these theories can be seen in the administration and accountability structures established as part of the education reforms. The impact of these structures on actual education delivery is reviewed in detail in Eagle & McDonald's article later in this issue. The assumption that all human behaviour is dominated by self interest and that individuals are rational utility maximisers which underpins public choice theory and agency theory can be seen to link to the central tenets of human capital theory which is analysed in the following section of this paper.

Human capital theory

Modern human capital theory is a core strand of neo-classical economics, which rose to prominence in the 1960s due primarily to work by authors associated with the University of Chicago such as Schultz (1961) and Becker (1964). Becker (1993:17) (an updated version of his landmark 1964 human capital text), proposed that education and training are important investments in human capital and that both high school and tertiary education raise a person's income, even after direct and indirect costs of obtaining that education have been netted out. He further notes that human capital theory assumes that schooling raises earnings and productivity mainly by providing knowledge, skills and a way of analysing problems (Becker, 1993: 19). The principal tenet of the theory is that human capital acquisition is an investment and ". . . additional education pays off in the form of higher lifetime incomes... Thus, in this very simple sense, the costs incurred by individuals in acquiring more education constitute an investment in their own future earning capacity" (Blaug, 1970:1).

Initially a strong proponent, Blaug, became critical of several aspects of the theory in his later writings. For example, his work "The empirical status of human capital theory - a slightly jaundiced survey" (Blaug, 1976), notes a number of inadequacies he perceived in the theory's ability to explain all factors relating to investment in education. His criticisms include the observation that "the human capital approach to labour training has yet to be put to a decisive empirical test" (Blaug, 1976:832) and that much of the research supporting human capital theory failed to discriminate between it and alternative explanations of the same phenomena (Blaug, 1976:834). He further criticises the research undertaken, noting that most of the research is based on the American model, with its open entry (as opposed to restricted numbers of government funded places) education system. Blaug cautions regarding the extrapolation of data to other countries, noting that "in European countries, the effective rationing of higher education by the State makes it impossible to test the hypothesis that subject choice in higher education is sensitive to earnings" (Blaug, 1976: 836). He also notes "the model concentrates all its attention on the supply of human capital while virtually ignoring the nature of demand in labour markets" (Blaug, 1976:839).

Further deficiencies cited by Blaug include the ignoring of non-pecuniary attractions of alternative occupations, the costs of gaining adequate information and the imperfections of the capital markets, which inhibit individuals from financing their desirable occupational choices. In addition, Blaug suggests (1976:839) there is a need to separate costless learningby- doing (which he suggests appreciates human capital) from costly self-investment (which is subject to obsolescence). He criticises human capital theory's concentration on formal schooling rather than on encompassing all forms of training (Blaug, 1976:840), its emphasis on quantity rather than quality

and its "neglect of the influence of native ability and family background on earnings" (Blaug, 1976:842).

Marginson (1993:40) notes that human capital theory underwent "a period of eclipse (from the mid 1970s to the mid 1980s) in which the earlier policy assumptions were abandoned". The reasons for this disenchantment are pertinently summarised by Sweet as follows:

> Within scholarly circles, the 'old' economics of education foundered on too narrow a view of how competence is developed, and on too restrictive a measure of productivity. In effect, it treated skill and knowledge as the exclusive province of education, income as the most valid measure of productivity, and the individual as the legitimate unit of study. As a result of this narrow approach to the study of the link between knowledge, skill and productivity, it became locked into much fruitless methodological disputation, and the larger view of the link between people and productivity became lost (Sweet, 1989:134).

The OECD, perhaps reflecting wider academic activity, appears to have been influential in the recent revival of support for human capital theory. Marginson (1993:48) cites an internal OECD memo from 1986 as indicating, "official policy on human capital theory was being revised". This was followed by a 1987 publication in which "the OECD drew together a new set of human capital policies in which education became the source of flexibility and responsiveness to technology and social changes".

Sweet (1989:135) observes that this rekindling of interest was as a result of the OECD's observation of economies, which achieved high rates of economic growth particularly the 'four tigers': Korea, Taiwan, Singapore and Hong Kong. Notable for an almost total absence of natural resources, and initially a low technological and capital base, the economic success of these countries, despite these handicaps, focused the attention of the OECD upon the way in which they harnessed human resources as an engine of economic growth, both through the level and nature of their investment in schooling and higher education, and through the priority that they attached to vocational education and training, within the educational system as well as in the workplace. Sweet (1989) suggests that it has been the impact of the success of these policies, as much as the outcomes of studies such as those cited above, that has persuaded the OECD to place renewed emphasis upon the importance of education and training as factors in economic reform and economic growth.

With this recent revival of interest in human capital theory there has been "renewed policy commitment to investment in human capital. But in the free market climate now prevailing, the emphasis is on private rather than public investment" (Marginson, 1993: I 05). It has led to an expectation of greater private investment in education through the payment by students, or their agents, of a greater proportion of the costs of education. This is due to the belief by policy makers that students will, in the long term, gain returns on their investment through higher levels of income than those without education.

The fundamental assertions of the revived theory are that:

1. There is a link between education and economic performance and that therefore improving the level of education within the workforce will improve a country's economic competitiveness (e.g. Stewart, 1992:3).
2. Individuals make a conscious and rational decision to invest in their own education in the expectation of a return on investment through higher lifetime earnings (e.g. Blaug, 1976:829).
3. Education has a productivity enhancing effect, i.e. educated workers are more productive than those with less education and are therefore "worth" more pay (McGrath, 1983:3).
4. Most of the benefits of human capital investment accrue to the individual and not to society; therefore individuals should bear the bulk of the costs of their education (e.g. Dawkins, 1989:13).

The application of human capital theory in New Zealand

The 1993 OECD *Economic Survey of New Zealand* provides an implied endorsement of education policy which began to evolve in the early 1990s, stressing New Zealand's poor post-war growth record relative to other OECD countries, and suggesting that reforms such as opening the economy to international competition depends on "the ability of firms to develop more advanced production processes that meet overseas quality requirements. This can occur only if accompanied by corresponding development of workplace skills and management" (OECD, 1993:70). The report also quotes Psacharopoulos (1984:74) as suggesting "that improved labour quality due to education contributes up to one-quarter to the rate of growth of national income, with an average contribution of just under one-tenth". It is interesting to observe, however, that Psacharopoulos (1984:337), also notes that human capital improvement, may, in some countries, be only a minor contributor to the rate of growth of national income, illustrating this with research showing the growth rate of national income explained by education as being as low as 3.3% for Japan and 2% for Germany - and as high as 25% for Canada. Unfortunately, he offers no definite explanation for the wide variations observed although he nevertheless does comment that "no efforts have been made to incorporate on-the-job training in financial growth models" and that "in the case of specific training, post training wages are less than the marginal product of the employee, the difference being the returns to the investment made by the employer. Since the latter appears in capital profits, failure to take on-the-job training into account results in an understatement of the contribution of education to economic growth" (Psacbaropoulos, 1984: 344).

Critical analysis of the true contribution of education to economic growth in New Zealand appears to have been excluded in the formulation of current policy, which seems to have focused on the 'workplace skills' aspect without considering the requirements of the 'advanced production processes' (OECD, 1993:70), and the implications for research and development policy inherent in this.

A major criticism of the assumptions behind the current support for human capital theory in New Zealand policy comes from Lauder et al., (1990:37). They state that:

> the precise correlation between educational standards as defined by the New Right - and economic decline bas not, to our knowledge, been fully explained anywhere, yet the assertion of such a connection bas repeatedly been made (Lauder et al., 1990:37).

Other criticisms of human capital theory appear to have been ignored in the development of recent economic policy. Hughes and Lauder (1991) draw on Schultz' (1961:15) earlier work to suggest, "the New Right espouses a form of human capital theory which argues that individuals are motivated to 'become capital', not from the diffusion of the ownership of corporate stock, as folklore would have it, but from the acquisition of knowledge and skills that have economic value". They continue, suggesting:

> this theory dresses up in contemporary guise the fundamental New Right assumption that individuals are driven by the rational pursuit of self-interest where the goals are wealth and status. In the modem world, a clear route to these ends is through the acquisition of credentials. This theory enables the New Right to apply the theories of the free market to education because it argues that human motivation education is the same as that found in the 'free market'. It also creates the theoretical space for the New Right to argue that education is essentially a private good which primarily benefits those who invest in it and which should be paid for by them (Hughes and Lauder, 1991: 35).

In spite of these concerns, a simple model of human capital theory appears to remain influential in the formulation of government policy (see, e.g. Treasury, 1984; 1987 a & b; Todd Report, 1994).

As pointed out in the previous section of this paper, human capital theory bas more recently been questioned by some of its former supporters. These criticisms do not appear to have been

considered by organisations such as the OECD and by policy makers in New Zealand. In the various review and policy documents that emerged since the mid 1980s, policy makers appear to have embraced its concepts uncritically as a cornerstone of current tertiary education policy. For instance, human capital theory, as interpreted by Treasury (1984; 1987 a & b), assumes that there is a universal return on investment in education. This assumption is examined in the following section and it is shown that different types of qualifications appear to offer very different rates of return, and that the rates of return are substantially different for males and females at each qualification level.

Private return on investment to education

The assumption is frequently made that there is generally a financial return on investment to education. This is illustrated by Blaug's original summary of one of the foundations of human capital theory that "in all economies of which we have knowledge, people with more education earn on average higher income than people with less education, at least if the people compared are of the same age" (Blaug, 1970:1). Australian writers are much more explicit on both the theoretical foundation and the expected return on investment to all parties: "In the early 1960s, some economists demonstrated that when expenditure on education was considered as an investment in human capital, its rate of return could be shown to exceed that on physical investments in roads or railways ... " (Harrold, 1985:14). Harrold (1985:13) also provides a summary of the expected benefits which accrue to individuals: "Human capital is due largely to educational activities building on people's innate intelligence to enhance the skills, knowledge and attitudes necessary for satisfying their own wants directly and the wants of others indirectly". This implies conscious and rational investment in human capital acquisition with the clear expectation of future returns on that investment.

The belief in the expectation of return on investment in education is evident in Treasury's Economic Management report (1984:268): "Demand for education is substantially derived from the need to acquire labour market skills and because of this, individuals have clear incentives to invest in education". This requires analysis in the specific New Zealand context. The census data, which follows, shows that a university degree "pays off" in the form of higher earnings. A lack of any qualification, school or tertiary, imposes a lifetime penalty of below average income. This is consistent with Becker's (1993: 12) finding that "inequality in the distribution of earnings and income is generally positively related to inequality in education and training" and that "earnings typically increase with age at a decreasing rate".

However, while Becker proposes a positive correlation between education and income (e.g. Becker, 1993: 17) and the 'degree' versus 'no qualification' data supports this, for non degree tertiary qualifications, the situation is less clear. Census data from the 1981, 1986, 1991 and 1996 census periods indicate that there are *not* higher financial returns on investment from these qualifications compared to secondary school qualifications (School Certificate and above). When these figures are converted to an index, with the average wage across all qualifications indexed at 1.0, an interesting pattern emerges as shown in Table 1 below. The relative advantage provided by different types of qualifications is similar for males and females within the gender groups. However, within the individual qualification classifications there is a consistent imbalance between average income for males versus females. Table 2 shows that males out-earn females with equivalent qualifications. For example, males with degrees earned on average 1.34 times that of females with degrees in 1981, although the gap appears to have closed over the last four census periods.

There are a number of factors, which could account for the differences, including the actual jobs taken by the two sexes within each qualification category. For example, the degree category does not allow the identification of the specific degree (e.g. Bachelor of Arts versus Bachelor of Engineering, etc.). The classifications used in the Census also do not allow accurate identification of higher degrees and combine as one single sub category: Postgraduate Degree, Certificate or

Diploma. This sub-category was combined with that of Bachelors Degree to provide one single Degree category. For the 1996 census, a number of classifications changed to reflect a range of vocational qualifications. This, unfortunately, makes comparisons with previous census data impossible.

Table 1: Relative advantage by level of qualification: annual income, 25 - 34 year old cohort: Employed in full time labour force: 1996 Census

Highest qualification	Males & Females combined	Males only	Females only
Degree	1.31	1.34	1.30
Advanced Vocational Qualification	1.09	1.14	1.11
Intermediate Vocational Qualification	1.15	1.12	1.06
Skilled Vocational Qualification	1.04	1.01	0.96
Basic Vocational Qualification	0.92	0.95	0.91
Post School Qualification - unspecified	0.92	0.92	0.90
School Qualification	0.96	0.97	0.96
No Qualification	0.78	0.79	0.72
Not Specified	0.81	0.80	0.82

* Average income across all qualification levels indexed at 1.0 for males and females combined, then separately for males only and for females only

Source: Department of Statistics Census Data: 1996 Census. Note: figures read *down* columns for comparison purposes.

Table 2: Gender differences in relative advantage associated with educational qualifications: 1981 - 1996 Census periods: 25 - 34 year old cohort employed in full time labour force

Highest Qualification	Relative advantage: males versus females over three census periods			
	1981	1986	1991	1996
Degree	1.34	1.26	1.23	1.26
Undergraduate Certificate or Diploma	1.35	1.22	1.15	*
Technical Certificate or Diploma	1.37	1.27	1.19	*
Teaching or Nursing Certificate or Diploma	1.23	1.27	1.22	*
Other Tertiary Certificate	1.34	1.37	1.24	*
School Certificate	1.38	1.33	1.24	1.24
No Qualification	1.46	1.42	1.33	1.33
Not Specified	1.47	1.30	1.22	1.18

* classification changes with the 1996 census data prevent comparisons with previous census data for these categories

Source: Department of Statistics Census Data: 1981, 1986,1991 and 1996 Census periods

The data in Table 1 suggests that, in financial terms at least, the returns on vocational tertiary education investment are significantly less than those for degree level investments (although the same direct costs and opportunity costs may be incurred) and may be lower than some jobs (which presumably have relatively high on-the-job training content) for which the entry level qualification is a secondary rather than a tertiary qualification. The data in Table 2 indicates that the returns on investment for females are substantially lower than for males. This finding appears to confirm the

suggestion by Psacharopoulos (1984: 342) that in the case of females, the effect of education is not just a question of raising their earnings; it may be necessary to gain qualifications merely to increase their chance of participating in the workforce at all. This is consistent with Maani's (1997:57) recording of higher participation in the labour force of women with higher education, with only 15.2% of females with postgraduate education not in the labour force in 1991, compared to 50.5% of women with no qualifications.

The impact of increasing fees and the student loan system on participation rates in education has yet to be conclusively determined. Maani (1997:5) observes:

> the introduction of fees in New Zealand has resulted in concern and debate regarding the effect of policy-related factors such as fees and allowances on participation in higher education. A body of research on this topic has highlighted the significance of the question of the determinants of participation in higher education and training.

Those entering lower income occupations who have taken out loans to cover their education costs incur another financial penalty in that they will pay more overall in repayments and in interest than those in higher income occupations as it will take the lower earners longer to repay their loans (interest rates were 9% in 1996, 8.4% in 1997, 8.2% in 1998, 8% in 1999 and 7% in 2000) on the basis of the Inland Revenue requirements for repayment of 10 cents for each dollar earned over the threshold of $13,884 gross annual income in 1995 (the threshold was increased to $14,300 in 1996). Brennan et al. raise the issue of underrepresented groups, noting that:

> women, ethnic minorities and mature students are the most frequently mentioned in this context, although social class remains the principal factor associated with educational inequalities. Extending access to higher education for these people is viewed both as a way of broadening social and occupational opportunities for the individuals concerned and as a means for increasing the supply of suitably qualified entrants into industry and the professions. It begs the question of the value of educational qualifications within the labour market when they are decoupled from the kinds of personal and social attributes which graduates have traditionally possessed (Brennan et al, 1993:6).

This suggests that improved qualifications may not be the only passport to better employment prospects and higher income levels for all and that education alone will not necessarily be able to correct inequality of opportunity.

Maani (1997:104) notes that the extent to which student loan repayments impact on private return on investment and therefore on participation in higher education is not fully understood. She presents a number of alternative scenarios which indicate that males may take between 14 and 20 years to repay loans of $6,188 per year taken for the duration of bachelor's degree study; females may take at least 20 years and may still owe, by Maani's calculations, $17,663 of principal upon retirement? The costs for postgraduate study are substantially higher. Maani (1997: 111) further notes that aspects of student loan systems and their implications for student participation, such as "the question of risk aversion in borrowing behaviour by socio-economic background and gender" pose worthwhile questions for further research. This would imply that the impact of fees and student loans on private investment decisions in education is still uncertain.

Maani (1997: 15) notes increased participation by Maori and Pacific Island students in higher education over the last decade, forming 13.6% and 4.3% of total polytechnic enrolments and 9.0% and 2.9% of total university enrolments respectively in 1996. When Manukau Institute of Technology's enrolments by type of course undertaken is analysed, however, Maori made up only 5.4% of degree enrolments and 8.5% of diploma enrolments, while Pacific Islanders made up 6.3% and 13.9% respectively. These percentages remained static over the 1997 and 1998 academic years (Source: MIT Student Management System data). These figures may suggest that these groups may be enrolling for shorter, lower level courses, thereby limiting their future earning capacity relative to those who complete the higher level qualifications.

Ehrenberg & Smith (1984:307) suggest that the analysis of the full rates of return on investment in education is extremely difficult as only financial returns and not psychic returns can be observed, and that informal on-the-job training is usually not measured. They also note that the financial return analyses in many studies measure only monetary earnings and not total compensation (i.e. including employee benefits). Ball (1990:9) admits that the link between education and returns to the individual may be open to challenge, conceding, "it is easier to demonstrate the link between learning and earning than to prove that a cause and effect relationship obtains". Certainly, it appears that the rates of return for different types of education and training for both sexes in New Zealand, warrant more in-depth investigation than has been undertaken to date.

'The free market'

'The Free Market' is a concept, which is referred to (apparently synonymously with 'competitive markets' and 'increased competition' and 'marketization') in many policy documents (e.g. NZ Treasury, 1987 a & b). The Free Market appears to be assumed to be the solution to perceived problems in that competitive markets in education allow students to maximise their individual choices and to ensure that providers offer services and products that are wanted by fully informed customers, at a price they are prepared to pay. It assumes that people enter such markets freely and on equal terms.

One of the few definitions provided in the literature of the philosophy behind the concept of marketization is that given by Ball, who states that the introduction of market forces into education is characterised by five factors: "choice, diversity, competition, financial exchange and new organisational styles, based on industry models, as advocated by New Public Management Theory" (Ball, 1990:60).

Choice implies that students should be able to attend the institution they think is best suited to their needs. This, in its purest form implies open entry to all institutions, or at least the availability of accessible alternatives. Diversity is closely linked to choice as choice can only be valid if there are diverse products to choose from and control is left to the market in terms of deciding which 'products' to support. Competition is also closely linked to choice. It implies the ability to compete for students against other providers and suggests that providers will become more accountable to consumers, delivering what is needed and striving to continually adapt to changing needs. These three factors can be seen to link back to Public Choice Theory.

A 'real' market is driven by rewards and failures, where choices made by consumers impact directly on the income of producers via direct financial exchange. Reward for success is usually in the form of increased revenue and profit, failure can ultimately lead to bankruptcy. The reward / failure element of the market model does not adequately reflect the reality of the educational market.

The organisational changes that have occurred as a result of the application of a market model for education relate primarily to direct, rather than centralised control of resources, such as budgets. It will be shown that this element causes conflict between financial and social objectives. To date, polytechnics that have not met their enrolment targets have been able to 'roll over' their deficits into following financial years rather than have their budgets immediately reduced.

Competitive markets in education, such as provision for polytechnics to offer degrees which had previously been the exclusive preserve of the university sector, are thus, according to market theory, expected to maximise individual (student) choices and ensure that providers offer services and products that are wanted by fully informed customers (i.e. students), at a price they are prepared to pay. It assumes that people enter such markets freely and on equal terms. Lauder (1991 :8) maintains that this view "only retains plausibility at a very high level of abstraction" as it ignores class, gender, ethnic and cultural factors. It may be that people have the opportunity to make choices, but their ability to do so may be constrained.

What constitutes the real market model for education? Nowhere in the range of policy documents is this defined, nor is an understanding of the way in which such a market may operate demonstrated. There are many definitions of 'market', and in fact many different potential educational markets. Kenway et al. suggest that these markets will be characterised by "competitive, for profit, exchange relationships between producers and consumers or buyers and sellers" (1993a: 3). The education reforms are couched in language which indicates faith in the power of 'the market' to rectify the current perceived weaknesses within the education system and to achieve the objectives spelt out in government policy. For example, the ability of non-university providers to offer degrees was intended to increase competition and to widen choice for prospective students.

Choice, the first element in Ball's market model, may not mean what it is intended to mean for all students. Elite institutions will be able to pick and choose who is accepted. Their status and competitive position will depend on maintaining their brand image and failure to protect it may see the net worth of a place at the institution decline. Many business courses already restrict places, thus preventing students from undertaking courses of their choice. Top academic students will have, as they have always had, a wider range of choices than the less academically able, who can still choose - but from a more restricted range of options.

The second factor implied by Ball's market model is diversity. However, the development of the National Qualifications Framework makes it increasingly difficult for any provider to offer substantially different products. Potentially, should higher level qualifications (the Framework includes provision for national degrees) come under similar funding constraints to those seen under the Industry Training Organisation structure at the trades level, industry may very well be able to dictate what comprises a particular qualification, with the possibility of funding being withheld from any components of a qualification which are deemed to not meet what industry will endorse. The freedom for institutions to exercise 'choice' by offering diverse 'products' could be seriously constrained, thus impacting on the third element of the market model, competition.

A further question arises regarding the freedom of institutions to tailor programmes to meet the needs of students, as professionals within those institutions define those needs, versus the extent to which industry may influence or dictate curricula. Which subjects may be favoured? What will happen to those, which may be regarded as of little market value? Will educators, through pressures of targeted funding, be forced to concentrate, as Watkins (1993:9) suggests, only on the knowledge deemed marketable versus that, which might be directed towards expanding existing knowledge or improving society as a whole?

There are additional implications for research. Research has been an essential core of university activity and is a growing area of polytechnic activity as a stipulated requirement for the accreditation and continuation of degree programmes. The markets, and more implicitly the demands of industry, are increasingly taking precedence in the direction of polytechnic research, which is primarily applied in nature. Competitive self-interest will as Kenway et al. (1993b: 107) suggest, "characterise relationships between tertiary institutions and increasingly amongst academics who are encouraged to market their 'intellectual property' to whatever sponsors they can find". Peters et al. (1993:25) raise the possibility that, where scientific research is subject to competitive funding, "important knowledge could be withheld from other members of the scientific community for fear of the loss of a competitive advantage". They also suggest that innovative, exploratory work will be sacrificed to allow 'safe' research (which conforms to the interests of sponsors).

The third element in Ball's model is that of direct financial exchange between provider and customer. The educational sector's financial exchange structure does not totally match that indicated by the market model although some movement towards it is apparent. The relationship between educational providers and customers is partially direct (through fees) but primarily indirect through per capita (Equivalent Full time Student/ EFTS) funding.

Educational institutions that over-achieve have not been historically rewarded financially as per capita funding has been capped and, as noted previously, institutions which fail to meet targets

could be given time to make up the shortfall - or could be required to repay the EFTS funds relating to the shortfall. Whether institutions that continue to under-achieve will be 'bankrupted' has yet to be seen.

The final element of the market model proposed by Ball is that of an organisational style modelled on industry, including methods of governance, leadership (the chief executive of some polytechnics are now Presidents), organisational design and direct control over how financial (and other) resources are allocated. The focus thus moves towards emphasising financial viability, introducing a tension with other social objectives such as support of disadvantaged groups (who may require more resource intensive educational programmes).

The education market does not operate independently at all. It is still regulated through funding constraints (i.e. levels of funding per student have been progressively reduced since the reforms were introduced) and a centralised quality control structure. This provides something of a paradox between moves towards a fully competitive market in educational services and a high level of government constraint of educational operations by way of input controls and accountability measures.

Implications for participation

As noted above, there appear to be inconsistencies within the current policies. The implications of the reforms on participation rates must be examined as a stated aim of the reforms is to increase participation by under-represented groups. Yet Stephens (I 994:8) suggests that there is overseas evidence that increasing fees has a substantial negative impact on lower socio-economic groups' participation in non-compulsory education and training. This view is supported by Maani (1995:1) who highlights the historical under-representation of lower socio-economic groups in tertiary education (in Australia) during the period where such education was free. She suggests that the new fees regimes introduced as part of the reforms are unlikely to improve participation by these groups. It has yet to be determined whether the reforms will increase under-participation and thus have a negative impact on equity as no definitive research has been completed in this area.

One method used by polytechnics to increase the participation of some disadvantaged groups has been through specially targeted courses that are only available to Maori and Pacific Island students. These courses are now funded via the Education and Training Support Agency (ETSA) on an annual competitive tendering basis (polytechnics competing for funding against private providers and against each other).

The legality of such courses being restricted to only Maori and Pacific Island students was challenged in late 1994 through action taken against Nelson Polytechnic by Amaltal Fishing Company Limited (regarding an ETSA funded fishing course) under the provisions of the Human Rights Act 1993. The company challenged funding for a fishery course being restricted to Maori and Pacific Island students when these ethnic groups were, the company asserted, already over-represented in that industry. The Polytechnic declined to defend the case as the programme had its source in a government agency that had specified the criteria for student funding. The decision went against the Polytechnic (Complaints Review Tribunal, 1994 and 1996). This has forced other providers, including the Manukau Institute of Technology, to re-examine whether their affirmative action courses comply with the law and to curtail the number of such programmes offered. As a result of this court decision, not as a direct consequence of government policy, courses which have been established with the specific aim of increasing participation by under-represented groups may now be discontinued - curtailing educational opportunities t or the groups concerned. Providers will be understandably cautious in terms of what, if anything is offered. Whatever occurs, it is unlikely to offer increased opportunities for the participation of the two targeted groups.

Conclusion

'New Right' ideology has been the overarching driving force behind reforms in education and in wider state governed activity. The various theories, which underpin the education reforms, contain a number of untested assumptions regarding perceived problems with education effectiveness and efficiencies, and the best way to manage this sector. Should these assumptions prove to be incorrect, the reforms may return suboptimal results. In particular, the version of human capital theory that occurs in the various reform documents as a recurrent theme, is a simple one which does not take into account the complexity and diversity of the relationship between education and economic performance. The theory appears to reflect an economistic model of the behaviour of those seeking non-compulsory education, which oversimplifies the education decision process and fails to allow adequately for some of the socio-economic factors that may influence and impact on the decision to undertake such education and training.

Similarly, faith in 'the market' as a mechanism for providing greater choice for 'customers' and for ensuring efficient and effective use of education resources is based on a simple and seemingly unambiguous model of the specific markets in education. A more detailed examination of the impact of increasingly competitive education markets appears warranted.

As a concluding comment we also draw attention to the fact that " it is clear that in regard to human capital development, no true market exists. The government is the only significant provider of education, and the most significant provider of research and development" (IT Advisory Group 1999). As such, the social benefits of education and a re-focus from the undue emphasis on private benefits which the education reforms engendered, deserves to be brought to the forefront of educational research and policy making. Moving toward the optimal path for harnessing the social benefits of education should be the driving policy goal.

Notes

1. The most recent example of the failure of management practices in the public sector, after reform has been pursued to emulate private sector practices and the adoption of a corporate business culture has been the case of Work and Income New Zealand (WINZ). For details see Ministerial Review into the Department of Work and Income. Released 10 May 2000. Available http://www.govt.nz1archives/winz/ Accessed 14/5/00. De Bruin and Eagle (2000) also provides comment.

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