What is the reality of school competition?

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Competition between schools for students coupled with per-student funding formulae has been advocated as a prime way to improve student achievement and productivity, and to improve access to educational opportunities for students from low-income homes (Hoxby 2003a). Indeed, Hoxby (2003b) has suggested that school choice could be " a tide that lifts all boats".

New Zealand has been of particular interest in discussions of the effects of school choice and competition, because it has had a decentralised system of school self-management since 1989, with most school funding based on student numbers, and families able to apply to any state school. Previous research based on data from the seven to eight years following this change investigated the nature of competition between schools, and found that competition failed to improve the educational opportunities or achievement of students from low-income areas (Fiske and Ladd 2000, Lauder and Hughes 1999, Wylie 1998, Wylie 2000).

This paper has three objectives:

a) to update the New Zealand picture to see if earlier findings relating to the winners and losers of decentralisation still hold in the light of national policy changes to school admission criteria and the introduction of balloting for oversubscribed schools. In particular, a focus is given to questions related to equity of educational opportunity;

b) to investigate the uneven operation of competition in New Zealand by comparing school actions and changes over time for schools whose principals see themselves competing with other local schools, and those whose principals do not see themselves in competition.

c) to situate the nature of school competition in New Zealand schools within the context of tensions with other policy directions, and tensions with parent and school expectations of parental choice, what programmes and equipment schools should provide, and school self-management. These tensions raise questions about the feasibility of school competition as a central policy tool to improve education and educational outcomes.

The approach taken in this paper is largely pragmatic. Competition and family choice are not seen as having universal or inherent value per se, either positive or negative. Their value (like any other policy tool) emerges in relation to whether they can maintain and improve the quality of educational experience and educational outcomes, and whether they can improve access to good quality educational opportunities for students from disadvantaged groups. This is a somewhat different approach than the economic analysis of competition in structural terms, which takes for granted that structural competition will result in certain behaviour. Levacic (2001) provides a valuable discussion of the need for a wider understanding of the reality of competition and competitive behaviour in education, based on behavioural theory of the firm, and the school effectiveness and improvement literature.

In an earlier review of the then available international research on systems of school choice (or open enrolment) and vouchers, including New Zealand, I also found that the educational 'market' did not operate in the manner, or have the gains, that advocates of increased competition between self-managing schools hoped; where it operated most fairly was in fact in small systems where

there was some partnership between schools and the public agency responsible for funding and school support, and where there was considerable effort and money put into ensuring that family choice was well informed, and allocation of places socially fair. Even here, achievement gains were modest rather than sizeable; social differences remained in the choices made by low and middle income families; informal information outweighed official information; and parents remained more interested in what seemed to them reliable (familiar) provision rather than diversity (Wylie 1998).

In this paper, I start with a description of the nature of school choice in New Zealand, looking first at what is known about it from a family perspective, and whether that has changed over time; and then at whether the options for families have changed over time, by looking at patterns in relation to enrolment schemes. I then look at whether there have been any systemic improvements in relation to one prime indicator of school effectiveness, the proportion of those who leave secondary school without any qualification. Finally, I return to the question of what competition actually is, by looking at whether there are differences between schools in terms of whether they perceive themselves to be in competition or not. This leads me to suggest that on the one hand, the worst fears of increased competition between schools may be unfounded, for a range of reasons. On the other, the best hopes of what could come from increased systemic competition also seem unlikely to be realised.

The nature of school choice in New Zealand

New Zealand is a small country (4.1 million at the end of 2005) with a school-aged population of 756, 400 at around 2,580 schools.

Families of school-aged children can theoretically select any state school.¹ State-integrated schools (most Roman Catholic, but also including other Christian denominations, former private schools, and Steiner schools) are also open to those who meet their particular "special character" criteria. These schools can also accept up a small agreed proportion of their roll, of students who do not meet the criteria (in 2006, a Muslim student became the head girl of a Catholic secondary school). Integrated schools receive government funding at the same level as state schools, but not for capital costs, which they cover by charging "attendance dues"; these can be quite high. While education (compulsory from the ages of 5 to 16) is legally free, in fact schools ask parents for donations. These are usually higher in high-income areas. The state subsidises school bus costs for students in rural areas, and transport costs for students attending integrated schools or kura kaupapa Mäori (Mäori immersion schools; Mäori are the indigenous people of New Zealand). Otherwise, parents meet the transport costs of non-local choices.

¹ There are 114 private schools, enrolling around 3.8 percent of the student population. These schools have received a capped amount of state funding since 2001, when a Labour-led government came into power. This has meant increasing fees at many private schools.

Among state schools, selection of students is theoretically limited to the state schools which have reached capacity, and which have enrolment schemes agreed with the Ministry of Education. The criteria governing selection are impersonal: residence in the school's geographical zone, or by ballot if there are spare places after in-zone applicants have been catered for. New Zealand has one of the lowest levels of social segregation in secondary schools among 27 "rich industrialised countries" (Jenkins, Micklewright, and Schnepf 2006). Even so, there have been concerns that zones disadvantage students from low-income homes, and increase existing social segregation related to housing costs.

Family access to their preferred school

Most students are at the school of first choice. The proportion that is not is probably around 10 percent for primary students, and around 20 percent for secondary students.² 1999 figures available for primary were somewhat highers.³ There may have been some improvement over time at the national level, perhaps reflecting declines in some areas in the number of school-aged children, thus making more places available, or perhaps reflecting an increase in the willingness of some families to look further a field. In 2003, around 30 percent of students appeared to be bypassing their closest school.

	Secondary parents (<i>n</i> = 604) %	Primary parents (n = 782) %
At first choice school, closest	54	64
At first choice school, not closest	30	27
Not at first choice	15	7

Table 1 Attendance at first choice school, 2003 NZCER national surveys⁴

Those who bypassed their closest school were more likely to be in cities, or attending integrated schools. At both primary and secondary levels, they were just as likely to be Mäori or Pacific as

² Based on 2003 NZCER national survey figures of 7 percent for primary parents, and 15 percent for secondary parents; and of 22 percent for secondary students in their first or second year of secondary school in 2003, mostly in the Wellington region (collected as part of the longitudinal Competent Children, Competent learners study). A 1999 study of school choice in Palmerston North, a provincial city, found 80 percent of secondary students' parents said their children were at their first school choice (Wylie and Chalmers 1999), and a 1997 study of school choice in Christchurch (a major city) found 79 percent of secondary students were at their first school choice according to their parents (Stockwell and Duckworth 1998).

³ These are from the 1999 NZCER survey (17 percent), and the 1999 Palmerston North study (18 percent).

⁴ The NZCER parent samples are drawn from cross-section subsamples of the national survey. This means that parents were randomly sampled at 30 secondary schools, and 26 primary schools in 2003. Response rates were around 33 percent at the secondary level (604 parents), 47 percent at the primary level (782 parents). These responses cannot be representative of parents as a whole, but they do provide a useful cross-section of views, and where comparisons can be made, these views appear to be consistent with more representative samples.

Päkehä.⁵ At the secondary level, they were more likely to have parents in managerial, technical/clerical work, or professional work – but the differences in proportions are not large. To some extent, this lack of social differentiation may reflect the fact that the closest secondary school may cater for only one gender – more likely to be the case at secondary than primary level. But it may also indicate that social background is not playing a large part in decisions to look further afield, and to be able to find something that is acceptable. Median distances travelled to secondary school were somewhat higher for Pakehä (5-7km cf. 2-4 km for others).

The 1999 NZCER primary survey showed that those who were not at the first school choice were more likely to be Mäori, from homes where parents were unemployed, and to be in low decile schools. The same ethnic patterns are not evident in the 2003 NZCER primary survey, undertaken at a similar but different cross-section of schools as the 1999 survey, and with similar proportions of different ethnic groups responding. This change may indicate that although there has been a growth in the number of schools with enrolment schemes, there is sufficient capacity at the primary level for most. Eighty-five percent of the primary principals in the 2003 NZCER survey had places on their roll for every student who applied, a proportion that was much the same in 1996 and 1999. The switch to balloting may also be helping access to enrolment scheme schools. Certainly, it suggests that the access of these groups to their first choice school has not deteriorated over time.

However, in 2003, their child's school was twice as likely not to be the school of first choice for parents of those attending secondary schools in the lowest income areas (31 percent of those attending decile 1-2 schools cf. 14 percent of those attending decile 3-10 schools⁶). Twelve percent of those attending decile 1-2 primary schools were not at the school of their first choice, decreasing with decile to 3 percent of those in decile 9-10 schools.

The same pattern was evident with the 2003 data from the Competent Children, Competent Learners study sample (Wylie and Hipkins 2006). This suggests that school choice is uneven, and that the sense of being able to obtain a preferred school is lowest for those in low-income areas.

⁵ Päkehä was a Mäori term for the Europeans who began colonising New Zealand in the early 19th century, and is a common term for New Zealanders of European descent. Sixty percent of the student population are Päkehä, 22 percent are Mäori, 9 percent are of Pacific origin, and 8 percent, Asian.

⁶ New Zealand state and integrated schools are assigned to deciles based on socioeconomic indicators drawn from census mesh-block data in relation to a sample of students' home addresses. Decile 1 is the lowest socio-economic area, and decile 10 the highest. These deciles are public knowledge, and are often referred to. The reason for this assignment was in order to allocate additional operating funding to schools serving students from low-income communities, in the three lowest deciles. The National (conservative) government extended this to include decile 9 schools. The Labour-led government that came to power in late 1999 increased the perstudent amount going to low-decile schools, but did not return to the original intent of the funding. Had it done so, other schools, by now used to the additional money and feeling squeezed to cover all costs from their operational grants, would have been loud in their public protests.

Schools can change decile – sometimes because of the change in their own intake, sometimes because of changes at other schools that then shift the rank of all schools. The use of census data (available every 5 years) means that the data used to determine decile can also get out of date.

Other more locality-based data also indicates that social differences in choice do occur unevenly, and are most evident in low-income areas. The Smithfield study found in 1994 that those who bypassed their closest school where it was "low circuit" (a low mean socioeconomic status of students, co-educational, and declining rolls) were more likely to be from high and middle income families, and to be Päkekä (Lauder and Hughes 1999). A 1996 study in the low-income South Auckland area of Auckland found that preference for schools outside that area was higher among those in the higher-income part of this area, and among Päkehä (Stockwell and Hewitt 1996). Reasons for preferring a school out of this local area were given as the standard of education, a preference for schools with "less cultural emphasis", and to a lesser extent, that the local schools had a reputation of being "rough". A similar pattern was evident in a parent survey in a low income area with some middle income pockets in Lower Hutt in 1997 (no author 1997).

Parental choice, if based on deciles, may further increase existing social segregation (rather than create it), where there are high-income areas adjacent to low-income areas. Manukau city (a low income area of the largest urban area in New Zealand, Auckland), for example, has no mid-decile schools, though it has some mid-decile communities (Gerritson 2006).

Thus we have some evidence that the New Zealand system has not been able to counter housingbased social segregation (as we shall see, this is not surprising since school enrolment schemes are geographically based), and that this has most impact on those in low-income areas.

The New Zealand research brings out some themes that are related to the pattern of, on the one hand, relatively high attendance at the school of first choice, and on the other, indications of different patterns in some locations, particularly low-income adjacent to higher-income areas. These themes are important to consider in gauging the nature and role of family choice in other countries.

Decisionmaking around school choice

Information about schools used to make decisions is often received through informal channels, consistent with family and friends being important in school choice. The importance of informed choice is often emphasised by the advocates of choice-based provision, but this role of informal information raises questions about how realistic this would be (even if full timely information can be given and understood), and whether personal relationships would nonetheless carry more weight for many students and families than the kind of information that school choice theorists believe decisions should be made on.

In an interview for a study of effective schools' financial management, the principal of a school that was highly regarded by educators was grappling with trying to maintain the school's programme by trying to sustain roll numbers in an area where there were fewer younger families. She spoke to me of the frustration she felt when student decisions were made on the basis of where their (then) friends were going, rather than whether the chosen school could meet their needs, and offer an effective programme.

Students are often involved in the choice of school (though parents and their children may see this somewhat differently, and there are different patterns of children's involvement across different social groups). Again, student considerations do not always match those of the school choice theorists.

A sizeable minority of parents in fact do not consider more than one school. The Palmerston North study found that around half the primary and a quarter of the secondary school parents considered only one school in making their choice. Others who did consider two or more schools looked beyond a neighbourhood or familiar school only if they were dissatisfied, or heard more favourable reports of another. Thus location and familiarity continue to matter in an open-choice system (rather than comparative effectiveness, for example).

Few parents give only one reason when they are asked about the reasons for their preference. The main reasons found in 2003 with the Competent Children, Competent Learners study sample were the school's 'reputation', its proximity, family tradition, and friends going there. There were no clear social differences here, either in relation to the socioeconomic status of the family, or the decile level of the school chosen (Wylie and Hipkins 2006). Other surveys have found that parents choosing high decile schools are more likely to mention academic results specifically (e.g. Stockwell and Duckworth 1997).

Does it matter that students are in the first choice school?

While not everyone may get their first choice of school, experience of the school can change perceptions: half of those who were not in their first choice secondary school in the Competent Children, Competent Learners study would in fact choose their current school if they could go back in time – and conversely, 18 percent of those who were at their first school choice would not do so. The 1997 Christchurch study found that levels of parental satisfaction with their child's secondary school were just as high for those whose child was not at the first choice school, as for those who were.

Attending the school of first choice was not related to early secondary students' engagement with school or overall levels of class achievement in multivariate analysis carried out in the Competent Children, Competent Learners study. Other factors had more weight, particularly prior levels of performance and school engagement, and parental interests. The latter is consistent with the qualitative analyses of Lareau (2000) and others showing that different parental strategies have different results for children; it is not clear how extending school competition would address these differences in parental strategy.

It is important to note that parental satisfaction with the quality of schooling was high at the start of the New Zealand reforms, and has remained so. In the 2003 NZCER national surveys, 87 percent of primary parents were generally happy with the quality of their child's schooling – a proportion that has remained much the same over the NZCER surveys since 1989, the first year of decentralisation. The NZCER 2003 secondary survey found 85 percent of parents were also generally happy; a 1997 survey of Christchurch parents of Years 9 and 10 students found 93

percent were satisfied or very satisfied with the school their child attended 9 (Stockwell and Duckworth 1998). These surveys are consistent with the figure of nearly 80 percent of parents saying they were satisfied with the standard of education their children received in a National Business Review opinion poll also in 2003.⁷

There has not been a marked swing to innovative schools (this is consistent with Brown's (1997) analysis of the imperfection of the education market in economic terms). Support for schools offering markedly different approaches is limited to a handful of small schools in urban areas, to kura kaupapa Mäori (also in rural areas with strong Mäori traditions) and some Pacific island immersion programmes. Vaughan (2004) charts some changes in the diversity available within state schools, and the way in which formerly 'alternative' approaches have been incorporated into mainstream provision in an evolutionary rather than revolutionary way. Boyd's (2005) evaluation of curriculum innovation programmes in secondary schools and Gilbert's (2005) analysis of the way that the current organisation of secondary education militates against the providing the kind of educational experience best suited to the development of the knowledge and skills needed in the 21st century show that the obstacles facing positive innovation are not solvable through either family choice or individual schools acting in isolation. Positive innovation of this kind will take substantial political will, additional funding to support demonstrations, the development of infrastructure, and work with parents and the wider community (including business).

The experience of extending family choice of schools may be different in countries or systems that start with lower parental satisfaction with schools (or trust), higher social segregation, and shortages of schools or places in schools.

Some of the other themes that have emerged in New Zealand indicate that the education market remains imperfect (in terms of economic theory), and also raise questions about whether family choice should be the litmus test of the worth of a system, since many of those who are not at their first choice come to enjoy where they are, and not being at the first choice of school does not seem to disadvantage students. However, the fact that those in low-income areas are less able to access schools they regard as preferable raises questions about how one can create fair systems of choice, or, if this seems too difficult, what is needed to improve perceptions of the worth of low-decile schools, and ensure that they are able to provide the rich education that students in these areas need and deserve.

Enrolment schemes

The main reason why New Zealand students are not at the first choice of school is that the school preferred had an enrolment scheme, whose geographical zone did not include the place where the family lived. The table below compares reasons given by parents using late 1990s surveys and the

⁷ Parental complaints to the government agency responsible for reviewing schools, ERO, did increase markedly from the 2001/02 year (218, including early childhood education centres) to 411 in 2003/04 (360 about schools); and have since stabilised.

2003 NZCER surveys. With the caveats around the small numbers involved, and that the data used for secondary students compares a single-location survey and the national cross-section survey, there are indications here that while the proportion of those not at their first preferred school has not risen, enrolment schemes may be playing more of a role in not getting in than previously. Certainly they are not playing less of a role. This seems more likely to be because the number of schools with enrolment schemes increased markedly over this period, rather than the return to balloting from 2001 (though to be sure of that, one would probably need a closer locality analysis). Cost and transport also feature.

For students not at their first choice school	NZCER 2003 survey - Primary (<i>n</i> = 54) %	NZCER 1999 survey – Primary (n = 146) %	NZCER 2003 survey Secondary (n = 76) %	Christchurch 1997 survey Secondary (n = 38) %
Enrolment scheme	27	19	46	32
Child's choice	7	Unknown	25	14
Cost	14	18	22	5
Transport	20	29	18	N/a
Child not accepted	N/a (ballots)	Unknown	N/a (ballots)	22

Table 2	Reasons for not being	at school of first	choice - late	1990s and 2003
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There were no statistically significant differences among social groups in relation to these reasons (but the numbers were small once broken down further into different social groups).

The chart below shows the changes in enrolment schemes since the 1989 reforms.

Changes in enrolment schemes:

before 1989: many secondary schools had home zones, agreed with the Department of Education. Primary schools did not have zones; parents could choose – rare to choose anything other than nearest school; established 'feeder' patterns with particular secondary schools.

1989-1991: home zones for all secondary schools operating at capacity; spare places decided by ballot

1992 – National government abolishes home zones; schools that are operating at capacity (primary as well as secondary) can set their own enrolment scheme. ("Most start with a small geographic zone and then give preference to siblings of current students and to the children of staff members and former students. But many schools, especially the most popular ones, have rules that for all practical purposes allow the principal to admit whomever he or she chooses" Fiske & Ladd (2000), p. 182).

1998 – National government restores home zones; Ministry of Education approval needed for enrolment schemes, taking into account the 'reasonable use of the network of schools', and schools should consult with local communities in developing their scheme.

2000 – Labour-led government provides a set priority order for any spare places after students in the defined zone (those in a special programme run by the school⁸; siblings; children of school staff); all others decided by ballot. Ballots would also be used if the number applying within each of the priority groups was higher than the number of spare places (Dowler 2005, personal communication).⁹

Before 1989, many secondary schools were zoned, but students were free to apply to other schools, which could take them if they had room. McCulloch (1991) provides a valuable description of what this meant in practice. He notes that zoning appealed to a range of purposes including planning and efficiency in resource use at both the school and national levels, and some regulation of schools taking action that could negatively affect their neighbours. However, the existence of zones did not stop some schools growing by taking out-of-zone students – and the schools that gained tended to be the more prestigious, longer-established, or those in higher income communities. They were also able to do their own selection, often on the basis of student tests.

The schools that were bypassed tended to be in lower-income areas. Even before 1989, this meant loss of staff and funding if rolls fell. It also increased social segregation in some cities, and allowed some schools to retain or enhance their "academic" status by selecting the out-of-zone applicants most likely to enhance that status. What happened in 1991 was that the purpose of zoning changed, and the existence of a school zone became an additional signal of high status, as well as a protection of advantage for those living in the high income areas wanting access to these schools.

The spread of schools with enrolment schemes is one of the most striking aspects of the changes in the New Zealand school landscape since 1989. In 1990, no primary schools had zones, and only 9 percent of secondary schools, most in Auckland, had zones. By 2004, there were zones for around a quarter of secondary schools, and 18 percent of primary schools. National roll growth 1999-2004 was 5.2%; however, the proportion of students attending enrolment-scheme schools grew to 38% (including those at 22 integrated schools), and the number of schools with enrolment schemes (termed ES schools below) doubled. They are more likely to be in cities.

⁸ These include special education classes, Mäori language immersion programmes, Pacific language immersion or bilingual programmes; programmes for students who have refugee status; teen parent units; alternative education programmes; adult migrant programmes; Montessori programmes; a specialist music programmes at one Christchurch secondary and a feeder primary; and a French language programme at an Auckland primary school.

⁹ Twenty-two integrated schools had enrolment schemes in 2004 (covering 6.4 percent of integrated school rolls): most of these are Catholic. These schemes do not have to be geographically based.

Table 3 Growth of enrolment schemes

	1990 %	1999 %	2002 %	2004 %
Number of secondary schools with enrolment schemes	31/349	48/320	62/319	79/320
	9	15	19	24.7
Number of primary schools with enrolment schemes		161/2055	246/1971	344/1916
	0	7.8	12.5	18
Percentage of state students in schools with enrolment schemes		20.3	28.6	36.1
Percentage of major city schools		15	21.6	28.6
Percentage of provincial city schools		8.4	14	17
Percentage of small town schools		2.1	4.1	6.1
Percentage of rural schools		1.9	4.1	7.1

The table below shows that while there are some low decile ES schools, they are very few. By 2004, the proportion of ES schools in each socioeconomic decile followed the decile ranking in a pretty linear fashion, and just under half the decile 10 schools were also ES schools.

Decile	Proportion with enrolment scheme 1999	Proportion with enrolment scheme 2002	Proportion with enrolment scheme 2004
Decile 1 schools	4	5.4	7.1
Decile 2 schools	3	5.2	6.7
Decile 3 schools	6	10.1	12.2
Decile 4 schools	2.8	8.4	14
Decile 5 schools	6	11.2	14
Decile 6 schools	8	13.6	19
Decile 7 schools	8	10.8	20
Decile 8 schools	8.8	14.9	19
Decile 9 schools	15	21.1	32
Decile 10 schools	27	38.4	46
Overall	10.1	15.4	21.3

Table 4 Growth in enrolment scheme schools 1999-2004, by socioeconomic decile

Pearce and Gordon (2005) show that the ideology of self-managing schools, coupled with a hands-off role for the Ministry of Education during the 1990s, allowing schools to set their own criteria, was not in fact politically sustainable. They describe the pressure that led to the return of

zones in 1998 - cases of students living close to a school who could not attend it; cases of students who missed out without clear reason. These cases were often in middle-class areas. There continues to be pressure from some principals of schools at the 'top end' of the decile ranking to be allowed to select students, usually on grounds that can be thought of as 'cream-skimming' if looked at from a school perspective; or as 'meritocracy' if looked at from the perspective of the small number of students who would thereby access a school that they could not otherwise access, or afford. Their ideal is probably the situation of 1998-2000. However, most of the small number of these prestige schools are by now victims of their own popularity, and do not have spare places. Auckland Boys Grammar, for example, now employs someone to check claims of zone residence, given its experience of false claims, or temporary lodging taken at the time of enrolment. Real estate agents routinely include school zones in advertisements where these are for prestigious schools; and house prices in prestigious school zones have increased at a higher rate than in other areas (Auckland Property Review 2002; McClay and Harrison 2003).¹⁰ Last-minute enrolments can cause difficulties for popular schools in relation to having to hire new teachers (at a time when they may have less selection than they would want, and be uncertain whether they can offer a more attractive permanent appointment), and timetables. In 2006 one school noted that because of late enrolments in senior levels, some students would miss out on their first subject choices because class sizes were now too big (Boyes 2006).

But it is not clear whether the spread of ES schools has merely reflected existing social stratification patterns, or increased it in relation to narrowing educational opportunities. The number of schools with really small zones is not high. In a study of zoning patterns in Christchurch, Pearce and Gordon (n.d). note that "quite large areas of low deprivation [are] guaranteed access to a high decile secondary school." However, they also describe how primary schools in one high-income area have set zones that, while overlapping and thereby providing choice within the area, have carefully excluded some lower-income areas that are physically closer to individual schools. Other examples of what appears to be strategic zone-setting to exclude students from low income areas are from schools situated in high income areas with a lower-income area close by. By contrast, examples of high decile primary schools without enrolment schemes occur where primary schools' neighbours are of similar high decile.

Some further strategic decisions around enrolment may also occur in relation to deciding the number of spare places. Enrolment schemes do not set a maximum roll number, and government funding that is determined by roll is based on the actual number of enrolments. Boards are required to determine by September the number of places they will have available for students who live outside the home zone. Foreign fee-paying students (whose numbers grew dramatically

Removing zoning could therefore reduce the value of homes in these areas; political commentators in one business magazine cited this as a tension for the National party's policy of relaxing zoning to improve school choice, given that its voters could be the ones most likely to lose out on selling their house (Young & Thomas 2006). McCulloch (1991) noted earlier that the National party's policy of abandoning zoning cost it votes in key conservative electorates in 1987 in the "Grammar zone" in Auckland, both for concerns about preserving the value of family investments, and access as of right to prestigious schools.

in recent years before starting to decline in 2004) must not fill places provided for domestic students.¹¹

There are no national figures available on the number of students who do apply out-of-zone, and their acceptance rates, so it is difficult to know to what extent ES status is both an attraction, and a difficulty for would-be students, and how that has changed over time. While the NZCER survey figures show around a third of students bypassing their closest school, Pearce and Gordon (n.d.) have shown that not every student in fact has access as of right to their closest school.

Lauder and Hughes (1999) suggested that the 1998 changes would not lead to substantial changes in school enrolment schemes, or produce more equitable student access to schools with enrolment schemes. This prediction appears to have been borne out; but there is some evidence (largely anecdotal) that the changes that began in 2001 have widened access, where there were sufficient spare places for a ballot of those not in the priority groups. For example, management staff in several high decile schools in the NZCER school funding study (Wylie and King 2005) who were in this position talked of seeing lower average achievement scores in their year 9 entrants after they switched to selection for remaining places by ballot, and this had led to their providing a wider range of courses.

Being an ES school appears to confer some advantages in terms of attracting students – but not always.

¹¹ It is not clear how the latter can be assessed; many schools with enrolment schemes that do not take all who apply also take foreign fee-paying students. Fees from these students cover the cost of providing specific additional courses, e.g. English as a second language, as well as revenue for the school as a whole, often used to extend the range of subjects offered. The self-funding nature of foreign fee-paying students makes it problematic to judge whether in fact they may in some cases be taking places that would otherwise have gone to domestic out-of-zone applicants. One school principal talked to me in 2005 of taking far more out-of-zone applicants than usual because of the drop in foreign fee-paying students between 2004 and 2005.

	Schools with enrolment scheme in 1999 Percentage change 1999- 2004 in roll numbers %	Schools without enrolment scheme in 1999 Percentage change 1999- 2004 in roll numbers %	Overall roll number change 1999- 2004 %
Decile 1-2 schools	-14.3	+6.6	-2
Decile 3-4 schools	+15.4	-10	-7.2
Decile 5-6 schools	-0.3	+4	+3.3
Decile 7-8 schools	+12.5	+4.7	+6.3
Decile 9-10 schools	+14.7	+7.1	+10.3
Overall	+9.9	+4	5.2

Table 5Roll changes1999-2004 by decile and enrolment scheme (primary and
secondary schools)

Table 5 also shows that the changes to enrolment schemes did little to change the loss of students at low decile schools and the continued growth of rolls at higher decile schools that was evident in the 1990s. Fiske and Ladd (2000) show that low decile schools in Wellington, Christchurch and Auckland lost students over the 1991-96 period to higher decile schools; a pattern that was different from the previous five years. Harker (2000a) shows that nationally, low decile primary schools grew less than higher decile primary schools (decile 5 schools showed the most growth) over a period of growing rolls 1994-98. In terms of social selection, he also found that the median roll at high decile schools with more than 20 percent Mäori enrolment. Roll changes 1991-1998 in secondary schools showed the same trends more starkly.

Thus we have an interesting picture. There is some fluidity of individual student movement that does not seem to decrease with the increase with the growth of ES schools. However, it is in only one direction, as predicted by most researchers who have analysed reasons for school choice. The evidence suggests that competition for students does not create more even social mixes. The proportions of students from lower income backgrounds entering higher decile schools are not high enough to change their decile substantially.

The New Zealand picture is of particular interest because it is one of the longest running systems of open choice coupled with school self-management. Under the New Zealand conditions, there is little evidence that the hopes of some school choice advocates of using choice to counter social segregation within educational provision can be met.

I turn next to the other great hope, that it will improve schools, and thus student achievement.

Does competition improve student achievement?

On international comparisons, New Zealand students score well; they are usually within the group scoring above average. This was the case before 1989; and the picture has not changed. However, while New Zealand usually has a larger proportion of students scoring at the top end, it also has a large proportion scoring at the lower end, and a relatively wide range compared to other high scoring countries. This has been of policy concern for some time, with added attention in recent years as economists note population growth in groups with lower educational achievement, in an era where further economic stability and growth will need high national educational levels.

Harker (2000b) noted that roll drops in low decile secondary schools left many with rolls under 500, and argued that this size was too small to allow effective education, or to provide a full range of subject options. His analysis shows a small decline in the proportion of students in decile 1-2 schools leaving with a 7th form qualification, in contrast to increases for other schools, particularly decile 9-10 schools, and his interpretation is that "skimming" is occurring to the benefit of the non-decile 1-2 schools. (This is unlikely to account for all the difference.)

In its 2005 briefing to the incoming Minister of Education, the Ministry of Education noted the rise in students gaining some qualification from 2002, when NCEA was introduced. "These results represent for the first time, in at least a decade, a significant reduction in the proportion of school leavers with little or no formal attainment." (Ministry of Education 2005, p. 46).

Thus at an overall level, there is little evidence to show that the 1989 reforms had any effect on student achievement. It was only when the country changed its approach to qualifications at the secondary level (for reasons that have to do with trying to engage a wider range of students in school, and provide more equity in recognition of "vocational" and "academic" knowledge and skills; see Hipkins and Vaughan 2005), that this stubborn indicator of system difficulty or failure started to shift.

To see whether they might have affected schools differentially, or reduced the gap between schools, we compared trends over time in the median proportion of school leavers with no qualification for secondary schools with different places in the education "market" (those with enrolment schemes in 1999 (ES schools), those without (non-ES schools), and integrated schools), within school quintile groups (decile 1 and 2, 3 and 4 etc). Only schools with complete data on school leavers qualifications held by the Ministry of Education are included in this analysis.

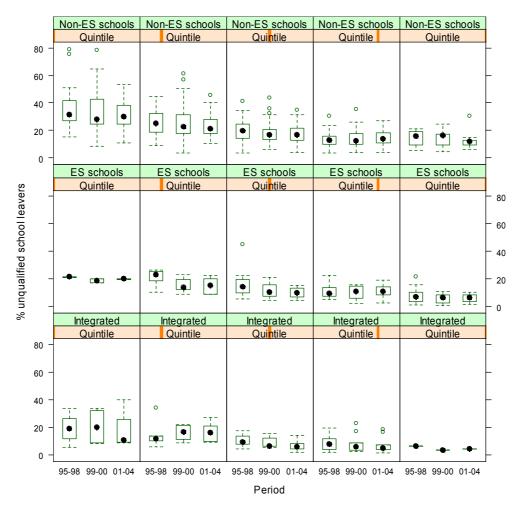
The comparison is over average percentages of school leavers without qualification for three timeperiods corresponding to different versions of the enrolment scheme criteria. The first period, 1995-1998 is for the time when ES schools could decide who they would select (and how much weight to give their home zone); the second period, 1999-2000 is when they were to give preference to home zone students, but could make their selection of out-of-zone students on their own grounds; and the third period is from 2001-2004, when ES schools had to decide any spare places for out of zone students by ballot. We have used 1999 ES and decile categories partly as a mid-point over the time-period, but also to see if the advantages of having ES status would be evident over time (from 1999 to 2004).

The figure below shows that:

- At the same socioeconomic quintile level, ES and integrated schools had lower proportions of students leaving without any qualification than non ES schools over this ten-year period. The only schools that had 40 percent or more of their students leave without any qualification were decile 1-6 non-ES schools;
- Whatever the school status, there is no improvement in the pattern following the modification to the enrolment scheme criteria taking effect in 1999 – thus there seems to have been no advantage for ES schools, and no (further) disadvantage for non-ES schools;
- There is little improvement in the pattern following the switch to balloting taking effect in 2001; and
- There is little evidence that the range of school proportions of leavers without qualifications has narrowed over time in other words, there are still similar proportions of schools with high levels of leavers without qualifications. Within each decile, non-ES schools have the widest range as a group.

At this level, there are no clear signs that competition is operating as a lever to improve less popular schools (non-ES schools). There are indications that it may be preserving the advantages for those attending ES schools – but not enhancing those further.

Figure 1 **Proportion of school-leavers without qualification, ES, non-ES and integrated** schools compared within socioeconomic quintiles*



* reading from left to right: the first quintile = decile 1 and 2 schools, and at the far right, the final quintile = decile 9-10 schools.

There are insufficient numbers of schools in some of the categories above to analyse whether there were changes in the range of proportions of school-leavers without qualification in relation to school status, either by enrolment scheme or decile.¹² We therefore had to analyse these two aspects separately.

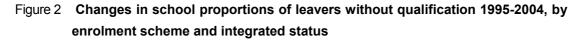
Figure 2 shows:

little change in either the median or range of school proportions of school leavers without qualification after 1999 for either the ES or integrated schools: in other words, any advantage from this status did not translate into improvements in student achievement. For ES schools, there is some lowering of the median and bringing down the top quartile after 1998, when schools had to have a home zone. But there is minimal difference between the home-zone/no ballot and home-zone/ballot periods. That may be of some

¹² For example, there were only 2 decile 1-2 ES schools, and 5 decile 3-4 ES schools.

comfort for those in these schools who are uncomfortable with the idea of a ballot deciding school entry;

 The introduction of balloting may, on the other hand, have helped the non-ES schools a little, with some reduction of the proportion of schools with higher proportions of schoolleavers without qualifications between 1999-00 and 2001-04.



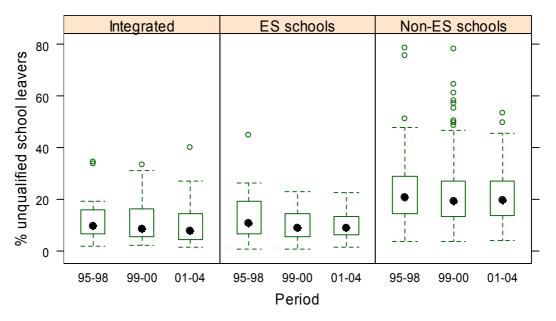
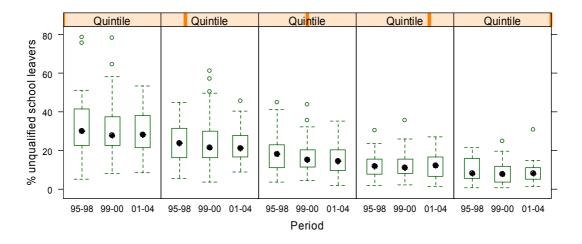


Figure 3 is less comforting. It seems to indicate that while decile 9-10 schools have kept their proportion of leavers without qualification low, and fewer schools in the 2001-04 period had higher proportions (but still substantially below the median for decile 1-4 schools), schools in other decile groups show fewer gains in either median or range. This suggests that decile, or socio-economic factors, are more important to patterns of student achievement than whether schools have enrolment schemes or are integrated – whatever those traits signal to families in terms of preference or reputation.¹³

Figure 3 Changes in school proportions of leavers without qualification 1995-2004, by school socioeconomic quintile

¹³ ES schools were less likely to have had a supplementary Education Review Office review (indicating major problems in the regular 3-yearly cycle of school reviews by this government agency): 14 percent cf. 33 percent of Non-ES schools, and 33 percent of integrated schools). They were also likely to have more stable finances overall: 2.6 percent of the ES schools ran a deficit over the last 3 years c.f. 5% of Non-ES schools, and 5.8 percent had posted a surplus for all three years cf. 3.6 percent of Non-ES schools.



* reading from left to right: the first quintile = decile 1 and 2 schools, and at the far right, the final quintile = decile 9-10 schools.

School experiences of competition

Why should we see so little change over more than a decade? Why hasn't competition on its own sharpened schools' capability to address the problem of students leaving without qualifications?

One of the most insightful studies of what competition might mean in education is Levacic's (2001) study of the relationship between a structural definition of competition (the number of schools in a local market or the degree of concentration), and competitive behaviour, and between these different conceptualisations of competition and student performance. The study has further significance because it looks at the effects over time where there is systemic competition, as in New Zealand. She found little relationship between English secondary head teachers' perceptions of competition and structural indicators, suggesting that this may be because perceptions of a high degree of competition were more likely to be associated with "rivalrous competitive conduct"; and if so, this would account for why student achievement did not rise more where head teachers thought their school faced a high degree of competition. She observes that "As in commercial markets, not all forms of competitive conduct stimulate improved performance for the consumer."

There was no positive impact in relation to structural measures of concentration, or the proportion of schools that were grant-maintained (usually higher-status). Nor was there any association with any of these measures of competition and school performance on "the more inclusive but less publicised GCSE2 indicator." However, where head teachers said they had 5 or more competitors, the estimated impact was a 4.5-5 percent increase in the percentage of students obtaining 5 or more grade A* to C for the GCSE examinations, which are used to rank schools against each other in league tables (and to identify "failing" schools).

Levacic concludes that:

... schools exhibit better performance in terms of the headline indicator when there is more perceived competition. It is suggested that this is due both to greater stimulus to improve and maintain the school's position in the local hierarchy and to more opportunities for co-operation and emulation related to product quality.¹⁴

She makes the case for using a more inclusive measure of school performance:

Putting to one side the problems of a raw examination score as an indicator of school quality, the total average GCSE score per pupil is a better raw exam score indicator than GCSE1. It does not induce schools to concentrate on particular pupils and reflects the achievements of all pupils in a school. (p 40).

Unlike the Levacic study, most studies of education markets continue to rely on secondary crosssectional data, and to approach competition in structural terms only. Belfield and Levin (2005) review US studies of the effects of competitive pressure on schools, using such data-sets. Much of the comparison is not between individual schools (as it is in studies in England and New Zealand, where school choice and self-managing schools are systemic) but between systems, such as private vs public school; or one district vs another. Their review shows modest benefits for student achievement from this kind of competition, but they raise questions about the degree and feasibility of reform required to increase competition, in order to get (only) modest results.

Gibbons and Silva (2006) raise questions about the use of concentration of schools as a measure of school competition because families may have already "sorted" themselves through housing choices, thus presenting some potential endogeneity between school concentration and school quality. They have focused on the performance of schools, using school value-added point scores (the difference between age-11 and age-7 point scores, averaged at school level) They find no causal effect on English primary school performance from competition:

Most of the observed positive correlation between the number of competing schools and pupil attainments is driven by unobserved neighbourhood characteristics or endogenous selection of pupils with choice into better quality schools.¹⁵

¹⁴ Gibbons (2002) found in a study of English primary schools that even after controlling for socioeconomic characteristics of both schools and catchment areas (thus allowing for spatial autocorrelation), "good primary schools tend to be located near other good primary schools and bad schools near other bad schools... could be [due to] a neighbourhood human capital spillover, operating through social interaction of pupils from neighbouring schools, or a knowledge spillover in terms of teaching technologies." (pp. 28-29).

¹⁵ Castle and Evans (2006) also raise the issue of endogeneity in their analysis of research on the effects of the specialist school policy in England, and conclude that it is impossible to tell whether it is their nature (as specialist schools) that lies behind their being more high performing than other secondary schools, or their effectiveness anyway, because the more effective schools were most likely to have become specialist schools. Much the same issue would probably confront any analysis in New Zealand comparing performance over time of ES and non-ES schools. They also note that comparisons of specialist and non-specialist schools do not take into account comparative costs, or whether the greater selectivity of specialist schools led to increased social stratification in an area, and more concentration of less motivated students at non-specialist schools. Citing Levacic's 2004 study of specialist schools that found 92 percent of the unexplained variance in examination results to lie at the student level, and only 7 percent at the school level, they argue that "This implies that for a

Their analysis also suggests that "school competition may exacerbate stratification of schools by student attainment." (pp. 30-31)

How real is competition in New Zealand?

How real is competition in New Zealand? If we define it *structurally*, in terms of concentration of numbers of schools, and bearing in mind Levacic's finding of a positive effect only where there were more than 5 schools competing, and not for fewer numbers, then much of New Zealand does not experience competition that might make a positive difference. The social and economic landscape of the country would have to change substantially to provide such competition: hardly a feasible proposition either politically or practically.

If we define it in terms of *perceptions*, on the grounds that this is how it can be a driver of change, then the evidence is that competition is still not pervasive in New Zealand, more than a decade after the 1989 reforms. Sixty percent of secondary principals in the 2003 NZCER survey said there was some competition in their relations with other local secondary schools, as did 43 percent of the primary principals in the NZCER 2003 survey, up from 30 percent in 1999, and 21 percent in 1996.

This is not unalloyed competition. Primary principals in 2003 who thought their school experienced some competition were just as likely as those who did not to share professional development (61 percent), and information on individual students (42 percent). They were less likely to share resources or give mutual support (38 percent cf. 58 percent of non-competitive schools). This indicates that schools' sense of competition is not wholesale or open-ended, but may be limited to particular schools. Fourteen percent had no/limited contact with other schools, cf. 6 percent of non-competition schools.

Primary school competition was more likely to be experienced in small town and small city schools, where perhaps rivalries are more transparent. As in 1999, there was no relationship between a sense of competition and the school characteristics of decile or type. The median roll was slightly lower for non-competition schools (166 cf. 180 for competitive schools)

Competition schools were just as likely as non-competition schools to have an enrolment scheme, and have schools around them with enrolment schemes, places for all who apply, or want an increase in school's physical capacity to take all applicants.

Twenty-three percent of the primary competition schools had made major changes to their school promotion/marketing cf. 12 percent of non-competitors. This is similar to previous surveys. Otherwise, and also in line with previous NZCER surveys, there is no difference between competing and non-competing schools in their initiation of different programmes and policies aimed at improving achievement and engagement for particular social groups, or taking up some

really big impact on attainment, education policy would need to exert leverage on families' and young peoples' attitudes and motivations."

of the innovative approaches that try to integrate thinking and problem-solving skills with the traditional academic areas.¹⁶ Unlike in 1999, those who thought of themselves as facing competition in 2003 were no more likely than those who were not to feel there was some curriculum or programme innovation they would like to implement, but could not.

How enduring is the sense of competition?

Of the 157 schools whose principals took part in both the 1999 and 2003 NZCER national primary school surveys:

- 48 percent were not in competitive relations in either 1999 or 2003
- 20 percent experienced some competition in 2003, but not in 1999;
- 15 percent experienced some competition in 1999, but not 2003; and
- only 17 percent experienced competition at both ends of the 5-year period.

Thus if principals need to feel in competition to be motivated to provide good leadership or improve the quality of education at their school, or to improve efficiencies in their operation just over half experienced some over this 5-year period; and it was a continuing reality for only about 1 in 6: hardly a reliable lever.

The schools that experienced competition in both 1999 and 2003 were least likely to have reasonably stable rolls (roll stability helps schools plan; Wylie and King 2004), and most likely to have lost more than a fifth of their roll over the 5-year period. More of these schools had another local school with an enrolment scheme (rather than all nearby schools), suggesting a local winner at the expense of one or more losers. They had lower levels of parent and community support, or parents discussing student reports with teachers. They were more likely to have school-business links, and to be involved in three or more externally funded projects. They were no more, or less likely to be undertaking programmes based on more individualised learning, though they were more likely to offer accelerated learning programmes (which appeal to some parents). They were more likely to say they could not make desired programme/curriculum innovations because of lack of time, money, staffing levels, or staff expertise. They were no more likely than others to cite national curriculum requirements as an obstacle to these innovations.

These schools experiencing continual competition were just as likely to "pass" their ERO review over the 1996-2004 period: there were no signs that these were either substantially more effective, or less effective schools than those who did not experience competition.

¹⁶ Ladd & Fiske undertook further analysis of principal and teacher data from the 1996 NZCER national survey. This analysis suggested that "neither competition among schools nor the loss of students had much impact on [principals'] perceptions of student learning." (Ladd and Fiske 2003, p. 107). However, both were related to teachers' perceptions of the impact of decentralisation on student learning; with gains less likely to be seen where schools were seen as in competition or had roll drops. Competition was also negatively related to teacher job satisfaction.

Secondary schools and competition

The 2003 NZCER survey data show a similar lack of substantial difference between secondary schools in competition, and those who are not. Roll stability was highest where schools were neither in competitive situations, nor had an enrolment scheme – often because there were no other local secondary schools.

Conclusion

The New Zealand evidence, from a national system of open-choice and self-managing schools that is now well-established, shows just how complex competition really is, and raises some sobering questions for the proponents of this approach.

Competition of the kind that is theorised will sharpen school performance and therefore "lift all boats" does not occur pervasively for many reasons. To provide competition between schools of the level that is suggested by some research is needed to get some modest gains would be prohibitively expensive in New Zealand (and other systems that are more than a single city or densely settled area), or it would entail major social and economic disruption.

Competition between schools does not enter an empty landscape, with all schools or families on the same level, or all families. Competition does not seem able to change that landscape; it does not solve or improve, and indeed probably makes somewhat more difficult, the provision of education in low income areas. But such provision is one of the key educational issues. The evidence is that open choice as it is in New Zealand is not so much creating as cementing a situation where these schools will continue to struggle to preserve or extend programmes that will provide rich education for students from low-income homes, because they find it harder to keep those who may show more motivation towards education, and because their resourcing is more precarious. In the Competent Children, Competent Learners study, motivation levels were much lower among decile 1-2 students, and highest among decile 9-10 students. There were other signs too of increased disengagement with school, and lower levels of parental satisfaction that pointed to this group of schools facing issues that competition and choice on their own have not solved, or made any easier (Wylie and Hipkins 2006).

Although there are also difficulties with the enrolment scheme structure, it is unlikely to shift from a geographical approach. That is politically too difficult (whether one was approaching it from a "hands-off" extreme market approach, or a concern for social equality). The concept of the school as a community focus, if not fulcrum, remains strong in New Zealand (and has indeed made it difficult for the government to allocate education resources more efficiently in areas where there is an oversupply of schools and places). There will continue to be those who cannot access schools they would like to (as in any system). In terms of trying to improve access to higher decile schools for students in adjacent low income areas, there is obviously scope for finetuning, and for government to look carefully at enrolment schemes across cities with this in mind.¹⁷ However, that does not provide a solution to the question of ensuring adequate provision in low decile schools.

Until the late 1990s, New Zealand relied only on structural competition as a lever for school improvement and innovation. While New Zealand state and integrated schools must operate within a national curriculum framework, it is a framework rather than a prescriptive scheme: there is considerable latitude given to schools to decide what to teach, when, and how. Schools make their own decisions about curriculum resources, including textbooks. They can also make their own decisions about which assessments they will use; and the senior qualifications regime also provides school-level scope for deciding what mix of external and internal assessments to use, although external examinations continue to be seen as higher status (Hipkins and Vaughan 2005). There is a limited amount of funding for schools to try out new approaches, for example, to use project-based learning at secondary level, for which schools compete. Nonetheless, we have not seen widespread innovation.

What strikes a New Zealand researcher about the examples where increased diversity or specialisation of schools has occurred alongside increased choice is that these examples are of districts within wider systems; usually in urban areas where it is feasible for schools to specialise; usually where districts have been able to afford the additional costs (e.g. transport; increasing school capability); and where there is in fact a more active role for the district working with individual self-managing schools than we have in New Zealand. The legacy of the "hands-off" 1990s makes that active role more difficult to work out now.

Hill (2005), as with others arguing for increased family choice, and the diversity of choice also notes the cost of providing this, if it is to be done so that low income students benefit as much as they need to. Indeed, he does not advocate so much a market, left to the suppliers, as it was in the early-mid 1990s in New Zealand, but makes the case for public agencies to ensure that there is

¹⁷ Zones are not used in England, but distance between a child's home and the preferred school is usually one criterion, as is siblingship. In their recent analysis of London secondary schools' admissions criteria and practice Pennell, West, and Hind (2005) noted that there was still some partial selection on the basis of ability, particularly among schools that were responsible for their own admissions, and recommended that allocations to schools should not be made this way, but by local authorities (as in the choice based system of Sweden) or the appropriate local level organisation for faith-based schools. Comparing existing parental satisfaction rates now with the higher rates of 20 years previously in London, West (2005) also argues that local authority allocation on the basis of aiming to provide an even ability mix among the schools in its jurisdiction, as previously in London, is fairer than either the use of distance alone, or school-based banding, and most likely to reduce social segregation.

sufficient diversity of choice. Ouchi (2005) in his analysis of systems of effective districts based on autonomous schools demonstrates the importance of district strategies to improve capability and support schools.

New Zealand started to move in this direction around 1997, when it became reasonably clear that there were few marked gains at a system level, and particularly in low income areas. The government's first moves were tentative support for schools in difficulty (often in low income areas), but then it started to taking the lead with carefully thought-out professional development coupled with the development of more useful assessment resources: none of which could be created or disseminated by schools acting on their own, but which needed central leadership and resourcing. More recently, it has been supporting professional learning communities, both within and across schools.

This is interesting in light of the analyses by Levacic and Gibbons, who in going further than most analysts of competition in education, and trying to understand why particular kinds of competition appear to be associated with positive change, point to the role of professional learning from colleagues. This is something also emphasised in studies of effective schools and districts.

The New Zealand government is also providing the basis for schools to make better use of better formative assessment data, so that they can both diagnose and respond effectively to student needs and gaps. Work started with primary schools, and in the last couple of years, shifted into secondary schools. This is a long-term strategy, that needs continued political support. There are some signs that it is beginning to pay off (e.g. Higgins, Irwin, Thomas, Trinick, & Young-Loveridge 2005).

For some, the lack of change in New Zealand would reflect a lack of accountability: schools are not being held up to the fire of league tables or the fear of being placed in 'failing' categories. Levacic's cautionary note about the gaming behaviour that can ensue, ¹⁸ and the importance of having inclusionary measures is important. There is also continued dispute about whether the English approach has actually raised achievement, and improved the educational outcomes for students from disadvantaged backgrounds, or simply raised performance on the visible measures.

In New Zealand, perceptions of competition do not seem to act as strong drivers to improve school programmes or approaches. The signals sent by competition do not result in markedly different approaches to provision. Student numbers matter for the sustainability or enrichment of provision, but few principals are interested in continuous expansion. Competition may not be needed as the spur its proponents believe. Educators' desire to give their students as much as they can, coupled with ensuring that they have the ability to do so effectively, are likely to have more effect.

¹⁸ Further examples are provided in regular stories in the *Times Educational Supplement*; and are now beginning to come through in the US, with the pressure of the No Child Left Behind legislation.

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