Removing the decile label:

AN INQUIRY ON THE CAUSES, IMPACTS AND POSSIBLE MITIGATION OF THE STIGMATISATION THAT ACCOMPANIES RESOURCING FOR DISADVANTAGE.

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EXECUTIVE SUMMARY

The proposition for this inquiry is that stigmatisation of schools according to decile is a symptom of growing systemic inequity and economic disadvantage. Decile has become a synonym for quality and low decile schools are perceived by many as schools for those who have no choice. Furthermore, despite the absence of ethnicity in the decile calculation, the 'low decile' label marks ethnicity, thereby colouring community perceptions about schools.

The inquiry examined the literature surrounding resourcing for disadvantage; examined data related to decile; and tested the proposition via informal-style interviews and surveys with principals from primary and secondary schools, board members, teachers, student teachers, and students of schools in Auckland, Hamilton and Hawkes Bay. Interviews were also conducted with officials in the Ministry of Education, Education Council, NZEI, NZPF, Secondary Principals' Council, and the Education Review Office.

Findings:

The general conclusion of most research examined in the literature reviewed for this report is that "school choices are made primarily on social rather than educational judgements." Attitudes around school choice are not easily changed. They impact the way schools and the wider community responds to any change to resourcing formulae.

Attitudes to decile are shaped by the history of school choice in New Zealand. The absence for a long time of any central oversight of governance over matters such as zoning has led to imbalanced school rolls and ghettoization of some schools. Decile contributes to infrastructure inequity because capital works policy favours schools with growing rolls or in new housing and wealthier communities. External reviews, while a logical part of a devolution of control to individual schools, ignore community context and therefore have the unintended consequence of intensifying a "cycle of decline". Decile is now embedded into public consciousness. When asked which individuals or groups might most want to find an alternative metric if decile were to be replaced, principals and board members most commonly mentioned real estate agents.

Data analysis showed that significantly more students now attend higher decile schools than when school choice first became policy. There is a clear pattern of average school size being positively related to decile. In all communities examined, where there were low and higher decile schools the higher decile schools were always the largest and most likely to be growing while their lower decile neighbours were often struggling to maintain their rolls. The lowest decile school is also the school with the highest proportion of Maori and Pasifika students.

Student movement within schooling networks is noticeably influenced by decile. The inquiry tested the evidence for movement from low to high decile through case studies of Auckland's North Shore, Hastings and Napier networks and checked the data through interviews and survey. The case studies demonstrated that it is not being high decile that is most important. The determining factor for student movement is not being the lowest decile of any network of schools. Relativity is important. A relatively low decile in one community

can be a relatively high one in another community. Career paths for educators also tend to favour higher decile communities.

Despite, or perhaps because of the lack of understanding about decile, the label does have a major impact on how schools are viewed, on enrolment patterns, on staffing of schools and on how students view their educational opportunities. As overseas research has also found, socialized stigma attached to decile and the discourse surrounding it within schools contributes to feelings of shame and poor esteem.

Most respondents and interviewees believe that decile impacts on a school's ability to attract and retain students. They also believe that it impacts on the ability to attract and retain staff. Further, the feedback is that the decile label drains low-decile schools of many of the best academic role models within their communities.

There is universal espoused support for targeted funding for disadvantage. The inquiry canvassed where the potential opposition to change might come from. Feedback covered five themes: that additional resourcing is not needed; that low-decile schools are already getting the right amount or even too much; that mid-decile schools are the disadvantaged ones; and that current levels of decile funding is misunderstood and overstated. Finally, the question arose about whether schools effectively use any additional resourcing that they receive.

The crux of any sector challenge to change appears to be the preservation of absolute and relative funding change. There is a widespread belief that existing funding is not going to be increased but simply reallocated. Statements by previous Minsters of Education have led to a belief by some that no school will get less funding as a result of any change.

Interviewees were invited to suggest how potential stigmatizing effects might be avoided. Support via staffing was a key recommendation. However, sector matters that needed addressing included leadership training and qualifications; appointment and retention incentives; principal appointment processes; and a re-evaluation of how networks are created and sustained. Respondents also suggested a review of policy surrounding initial teacher education.

Respondents canvassed information flows around decile. Suggestions received focused around qualitative indicators including measures of teacher effectiveness, the extent to which students feel safe and supported, the quality of relationships within a school, and the success of a school in preparing students for the next stage in their lives.

The public portrayal of resourcing for equity was a topic of lively conversation. Shifting the language of 'index' to 'resourcing system' appears to be a sensible starting position. Attitudinal shifts might take some time to work through the system. The main opposition to change could arise from interests outside the sector (such as media and real estate interests) or from those whose current advantaged position is aided by decile.

Advice received in the research for this inquiry was that the Ministry needed to front-foot any change—not something the Ministry seemed to be good at. Two key messages needed to be shared: Why is funding for equity important? What will the gains be to those communities and society as a whole if that investment is made? A strong impression gained in the field work for this inquiry is that there is not a good understanding of just how significant the barriers are for students in the most disadvantaged schools.

Advice for the Ministry of Education included:

- The need to address a belief that it operates a low trust model.
- The vital importance of any chosen 'success' measures.
- Taking a central role in ensuring schools have access to well researched approaches to addressing disadvantage.
- Ensuring there is coherence of policy to ensure all parts of the Ministry, from staffing to infrastructure are aligned in ways that address disadvantage.

The conclusion from this research is that changing decile does have significant support. However, decile itself is not the problem; it's the label. Just changing label won't change much. The ultimate success of any new funding system is not how well it reduces stigma, but by how well it changes the life trajectories of students from disadvantaged backgrounds. How the level of need is calibrated, how the resource is delivered, and how it is reported are all critical. Schools are only one element in what needs to be a multi-faceted approach alongside a range of connected social initiatives.

Section 2 Introduction

"Is your first job to raise the decile?"

—Question by local newspaper reporter to newly appointed principal of a low decile school, 2018.

The proposal for a new system to replace decile provides an opportunity to more accurately and effectively target resourcing for disadvantage. The stigmatisation of schools according to decile is a symptom of growing systemic inequity and economic disadvantage. Decile has become a synonym for quality and low decile schools are perceived by many as schools for those who have no choice. Furthermore, despite the absence of ethnicity in the decile calculation, 'low decile' marks ethnicity, thereby colouring community perceptions about schools.

The marketisation of education over the past three decades is closely aligned with the notion of parental choice. The exercise of choice is now firmly embedded in the psyche of parents and communities. Choice and labeling have cultural, social and economic consequences. Increasing between-school segregation is the most noticeable.[1]

Given the role of education in the life trajectories of individuals, and the wider economic and social health of New Zealand as a whole, it is not surprising that successive governments have been concerned when the achievement rates of identified groups continue to 'lag behind'. While our most able students continue to achieve well in international testing and we remain above the OECD average, long-term trends across all subjects show a decline in the proportion of students performing at top levels.[2] [3] Persistent disadvantage undermines equity of achievement and the learning potential of all students.

This inquiry explores:

- the changes in the New Zealand context that put in place the policy levers that help explain the current situation.
- how decile impacts on school rolls, principals and teachers.

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[1] Gibbons et al, 2006, 6

[2] There is a large and often critical body of research and commentary about PISA. There are doubts about the nature of the testing and the approaches of different countries. Governments are blamed when results decline but take full credit if they improve. Policies and approaches are copied from other countries only to find that context is important. Other valuable educational goals are put aside to ensure rankings improve. Politicians, officials and principals undertake "educational tourism". Interestingly, a recent study which looked at the PISA results in mathematics of Chinese students being educated in NZ and found they did as well as their peers still in Shanghai. "Thus, cultural background appears to be more consequential for the educational attainment of Chinese immigrant students than exposure to the educational systems of Australia and New Zealand.3.

[3.] Feniger and Lefstein, 2014.

- the impact of decile on different groups.
- support for and possible opposition to any changes in the resourcing model.
- remedies and mitigation.
- approaches to portraying and implementing changes to resourcing for disadvantage.

The process used to develop this inquiry was to undertake a literature review, interview a sample of principals from primary and secondary schools, board members, teachers, student teachers, and students of schools in Auckland, Hamilton, and Hawkes Bay. A follow-up survey was conducted (see Appendix 3). Interviews were also conducted with officials in the Ministry of Education, Education Council, NZEI, NZPF, PPTA, Secondary Principals' Council, Education Review Office.

Section 3 Laying the groundwork for the segregation of schools by decile.

This section outlines the social changes and policy levers that help explain how New Zealand moved from the situation where most students attended their local school to one where schools are increasingly defined and segregated by decile.

3.1 Tomorrow's Schools

There seems to be little doubt that policy and attitudinal changes that accompanied the Tomorrow's Schools reforms played a central role in increased segregation of schools. School choice policies gained momentum in the late 1980s both in New Zealand and overseas. The proponents of school choice as a mechanism to improve education assumed that parents would choose schools on the basis of rational choice and good schools would attract students and poorly performing schools would need to lift their performance and attract students or "wither and die."[4] [5]

This is not to suggest that there was not already pressure on the popular schools prior to the reforms. By the 1970s educational gaps between schools in wealthy areas and those serving poorer communities were already evident[6.] "Anecdotal evidence from other periods indicate that New Zealand's urban middle classes have always sought and been successful in finding ways to educate their children in socially advantaged schools."[7] However in those earlier years the schools seen as popular were few and the great majority of children attended the school in their local suburb.

Ten years after the Tomorrow's Schools reforms, the "Smithfield Project"[8] found marked movements from schools with the lowest socio-economic intakes and the ones with the highest proportions of Māori and Pasifika students. There was already an ethnic aspect to the

[4] Nash and Harker 2000

[5] Research around school choice including successive PISA studies show there is no evidence that choice and competition actually improve outcomes within school systems. As the OECD report concludes, despite the fierce political and academic debate on the issue the effects as reported in the empirical research "are modest to say the least." Waslander et al, 2010.

[6] Ramsay, 1981. (*Tomorrow may be too late. Report on schools with special needs in Mangere and Otara.* Department of Education, Wellington.

[7] Thrupp, 2007

[8] Lauder et al, 1999

flows as European students and those from the highest socio-economic backgrounds were the most likely to attend a school away from their local school. Our egalitarian history and way of thinking about ourselves as a nation means that there was then — and remains today — a reluctance to articulate the seeking out of a socially advantaged education and especially to concede that choices have any aspect of ethnicity.[9] Nevertheless, in New Zealand as other jurisdictions where choice and increased autonomy for schools has been introduced as a mechanism for improvement, it has led to increased segregation on ethnic and socio-economic lines.[10]

In some settings the level of segregation, because of capacity limitations, has been less than was anticipated and in much of New Zealand there has been an increased number of students from low socio-economic backgrounds gaining access to higher socio-economic schools. For example, on the North Shore the numbers of Māori and Pasifika and the percentages of those students in high decile schools has increased.[11]

The aim of increasing opportunities for students from minority groups and from lower socio-economic areas is regularly given as a reason for having a school choice policy.[12] However it is interesting to note that, in New Zealand as overseas, many students do not leave their communities. Their schools end up with increasing proportions of high-need students and become more 'ghettoized'.[13] In every jurisdiction examined for this inquiry, the introduction of school choice (where previously there had been some form of zoning) increased levels of segregation in terms of ability, ethnicity and socio-economic status.[14] This leads to a self-fulfilling prophecy – more well off families presume that their local school is of low quality and by avoiding that school bring about real decline.[15] There is a considerable body of research, both in New Zealand and internationally that concludes that choice actually relates strongly to the social characteristics, including ethnicity of a schools' student population. Some limited studies have found that academic quality is important to all groups in considering school choice, but that the ethnic makeup of schools is still a central consideration.[16]

The general conclusion of most research is that "school choices are made primarily on social rather than educational judgements."

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[9] As a later section discusses in more detail there are marked differences between espoused reasons and revealed preferences.
[10] Roda and Wells, 2013
[11] Even there, the schools which had the largest proportion of Maori and Pasifika students already were the ones which experienced the largest gains.
[12] Willms and Echols, 1992, 339.
[13] Taylor,2008, 565
[14] Waslander, 2000, 18
[15] Schneider, 2017.
[16] Tedin and Weiher, 2004

3.2 The Legacy of Tomorrow's Schools.

Enduring attitudes

Perhaps surprisingly "while any other policy that has such uneven and contentious effects might eventually be overturned, to date school choice [in New Zealand] has endured."[17] School choice and competition between schools is now embedded in the way we operate our schools and we think about the provision of education. The extent to which "choice" is alive in the public consciousness and the political hegemony regarding school choice means that any challenge to it will be extremely difficult politically.

The philosophical rationale in disestablishing school zones was to open opportunities for students from disadvantaged communities. Choice allowed them to choose schools other than their local schools. Theoretically, that judgement is based on an assessment of the comparative quality of a school.[18] However, following the schooling reforms that devolved decision-making to the school level, the notion of competing for students quickly gained currency. It began to shape organisational behaviour of schools as Boards of Trustees and Principals enthusiastically embraced the notion of competition. However, relatively strong egalitarian values within the sector meant that for a long time there was an unwillingness to admit that things had changed.[19] Any suggestion that popular schools contribute to the segregation of schools has been and will continue to be vigorously rejected by some. However successive studies have shown that schools have contributed in some cases by actively 'managing' their enrolment zones. [20, 21]

It is clear that in the absence of government control post-1990 zones have often been drawn up in convoluted ways by schools to "bypass more deprived but closer areas in favour of further but wealthier suburbs" [22]. Research by Lubienski et al concluded that "higher decile (more affluent) schools are often using zone boundaries to exclude the most disadvantaged students."[23] In addition, "Such patterns support the view that schools may be recognising competitive incentives to maintain or improve their market position by attracting "better" students." [24] In this context, 'better students' can mean the academic or general behavioural characteristic of a student but also include attitude to learning, ability and involvement in sports and cultural activities.[25] These are highly subjective judgements shaped by

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[17] Ibid

[18] Lubienski et al, 2013, 82

[19] Thrupp, 2007. For instance, examination league tables feature much less in the New Zealand media, which also never reports or debates where politicians are choosing to send their children to school." [1394].

[20] Either shrinking them to prevent the enrolment of less desirable parts of a community or expanding the zone to take in communities that have become wealthier.

[21] One of the first bits of advice I got from a recently retired colleague when I became principal at Edgewater College in 1995 was to take every student I could so the school could put in an enrolment zone. That zone would show the community the school was popular and would enable the school to limit where its students came from.

[22] Pearce and Gordon, 2004,7

[23] Lubienski,et al, 2013, 95

[24] Ibid

[25] The captain of a high-profile state school rugby team told me that only one of the run-on fifteen lived in the school zone.

competition and social norms and status. Lubienski implied 'gerrymandering' of school enrolments and that attitudes shaped principal responses to the new permissions they had to do what they liked about school zones. Principals, not parents, were the ones exercising choice.

In summary, attitudes around school choice are not easily changed. They impact the way schools respond to any change to the resourcing formulas.

Self-managing governance and school zoning

Zoning regulations moved from a free market phase beginning in 1991, [which did away with the need to have a zone or hold a ballot] and the 1997 change to parent entitlement to enroll in a "reasonably convenient" state school. But by 2000, when balloting was again required, behaviours were embedded.

While there may be some argument about the degree to which zones have been gerrymandered, there was serious resistance to a previous Labour Government's attempts to roll back some of the extremes of market-based choice. Schools waged an aggressive campaign against the change back to balloting. That pressure — to retain favourable zones or to grow one school's roll even when the wider network of schools has falling rolls — continues. The public comment below illustrates the attitude:

> "Compounding this is zoning, a particularly evil institution that was abolished in the early 1990s but gradually re-introduced as parents were taking the opportunity to abandon poor-performing schools. The gradual reintroduction of this archaic institution removes one of the few competitive pressures that remained in the sector."[26]

In the research for this paper the use of school zone remains a concern for principals in many communities. They were also concerned about the active marketing, often in areas well outside natural zone or catchment areas, via scholarships for able sports or academic students and in some cases by some highly questionable releases of achievement and school profile data.

The latitude afforded schools to draw up their own zones resulted in what many saw as attempts to grow empires and to incorporate generally higher socio-economic communities. To those working in schools and on Boards of Trustees it has appeared that there has been a reluctance by the Ministry to use the rules at their disposal, possibly because the opposition to any change to a school's zone can be vigorous and public. This is especially the case in

[26] Damien Grant, 2018 www.stuff.co.nz/opinion/ 106345521

those communities with the favoured schools where zoning changes can impact significantly on property values. [27,28]

Many of the people interviewed for this research recognised that real change (for equity) would require government action and support. Most expressed doubt that would happen given the political pressure that would be applied. One interviewee noted that any government that did place restrictions on parent choice via a change to the zoning regulations would be "a single term government." [29] In any case, parent choice is often illusory with schools in high demand already at capacity.

Patterns of shifting enrolment because of zoning decisions can be seen even in high decile communities. On Auckland's North Shore the 8 decile 9 or 10 schools have average roll sizes of 1900 while the two decile 6 schools have between 450 and 680 students. (See also 0.) From the view point of the efficient management of the network of schools it is also a problem. Schools bursting at the seams may push [often publicly] for increased capital spending, while their neighbours have significant levels of spare capacity.

Schools routinely make decisions about student enrolments, staff appointments and resource acquisition that take no account of those actions on neighbouring schools or the health of the system as a whole. Nor should they according to the current model. In fact, it could be argued that in fact the principal and a board are acting exactly as they should. Their responsibility is to their school not the total school population in their community[30.] Interviewees working in education but not in a school saw the school-centric attitudes that predominate as a significant barrier to system wide change. "Principals don't take a system view."[31]

Self-governance separated each school from the wider network. The negative consequences of the Tomorrow's Schools reforms were unavoidable and substantial. Principals and school boards have behaved as the Tomorrow's Schools legislation intended them to.

That is, the absence for a long time of any central oversight of governance over zoning has led to imbalanced school rolls and ghettoization of some schools. Those zones are now deeply embedded and will be extremely resistant to change.

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[27] Simon Collins. Auckland's population growth sparks school zoning dispute in Mt Albert. NZ Herald. 2017, 28 March.
[28] (Rehm & Filippova, 2008)
[29] This was a view expressed by many respondents. There is widespread recognition of the political risks that attach to any change in the current school zoning and choice model.
[30] Vester, 2016, 78-79, 134-135.
[31] The Ontario approach as outlined in "How Ontario Spread Successful Practices Across 5,000 Schools" is seen as a model for system wide change.

Capital Works

Another policy lever that resulted in the growth of higher decile schools and the associated falling rolls in lower decile schools were the rules around capital works. When schools were eligible for capital works funding based on roll rather than where that roll resided, schools were incentivised to take out of zone students. The new and improved facilities that the roll growth enabled then became another attraction for students from schools that did not have those facilities. At the same time as a principal would be complaining about the unfairness of the funding system they could be photographed standing in the doorway of a new facility or on the newly-installed water-based hockey turf.

The current policy has changed the capital work funding incentive to grow rolls but some schools with large out of zone rolls are still seen to be receiving major capital injections to renew and replace teaching and other spaces up to their current rolls and well beyond their in-zone requirements.[32] This will be happening because it would be difficult, and in some cases impossible, to relocate all of the out of zone students, to say nothing of the political storm that would follow any such suggestion. However, when neighbouring schools are not also redeveloped and upgraded it does mean that they are further disadvantaged in terms of competing for those students. One principal described this as "infrastructure inequity."

Infrastructure inequity is a result of capital works policy that favours schools with growing rolls.

Education Review Office

When responding to a question about decile, one principal interviewee talked instead about the impact of a bad ERO review. Friends had tried to dissuade him from applying for the position because of the ERO review. Another principal commented:

> "our low decile is nowhere as problematic as a bad ERO report."

ERO is set up under the State Sector Act 1988 to "evaluate and report publicly on the quality of education provided in New Zealand schools and early childhood services, and on the effective use of public funds." Given the significance of the work that they do, their open

[32] Avondale College's with over 60% out of zone roll completed a multi-million dollar [and award winning] rebuild in 2016. As Architecture Now reported in Dec 2015 "they have the relaxed quality of much of Jasmax's architecture and the sensitivity to community and environment that characterises much of its work."

access to the inner workings of schools and the public nature of their findings, it is not surprising that their reports have knock on effects.

In 1997 Cathie Wylie prepared a report for NZCER that examined primary principals' experiences of ERO reviews. Pertinent to this report was the finding that 30-34% did not feel that ERO officers appreciated their particular school situation and that "their deeper concern was the anxiety ERO visits produce as a result of the final report being made publicly available." [33] They saw a focus on weaknesses rather than strengths and the subsequent use of those findings by the media.

Certainly, in the mid 1990's the notion that parents and the public had a right to know if a school was performing or underperforming was at the fore. Newspapers regularly reported on ERO reports especially if the report was negative. Principals in lower decile communities felt particularly vulnerable as a bad report could lead to a further cycle of decline.

Wylie in her 1997 paper commented "does the benefit of publication in the media outweigh the cost?'[34] Meetings were held with the then Chief Review Officer. The response was that the need for transparency outweighed those risks. In any case under legislation the reports could not be withheld. Other commentators are highly critical of ERO.

"The review office is pure dread: the relationship of school to review office is one of unpredictability and lack of accountability leading to an overall relationship based on fear that is often sublimated by schools furiously conforming to, even going beyond, review office expectations."[35]

ERO has subsequently moved to modify its reports so there is more emphasis on those things that are going well. This has prompted criticism that they are now bland and uninformative. In a sense ERO are dammed if they do and dammed if they don't. Some respondents whose schools had been identified as requiring some form of intervention did report getting useful assistance from the organisation.

Decile, the media and real estate.

With the school choice model firmly entrenched and the obviously growing divide between schools serving different communities, the media became increasingly active in ranking

[33] Wylie,1997, 15.
[34] Ibid.
[35] Kelvin Smythe, May 24, 2017.

schools and publishing information on schools, including ERO reports. Anecdotally, Metro's biggest month of sales is its annual "Best Schools in Auckland" edition.

Real Estate has also been active in the use of school decile in its advertising and sales. Advertisements featuring the name of a school or "excellent schools" regularly include reference to decile when the decile is high but never when the decile is low. Reports of real estate agents telling parents that they can get their children into a higher decile school in another community etc. are common.

When asked which individuals or groups might most want to find an alternative metric if decile was to be replaced real estate agents were the most commonly mentioned by both principals and board members.

Section 4 Understanding the impact of decile

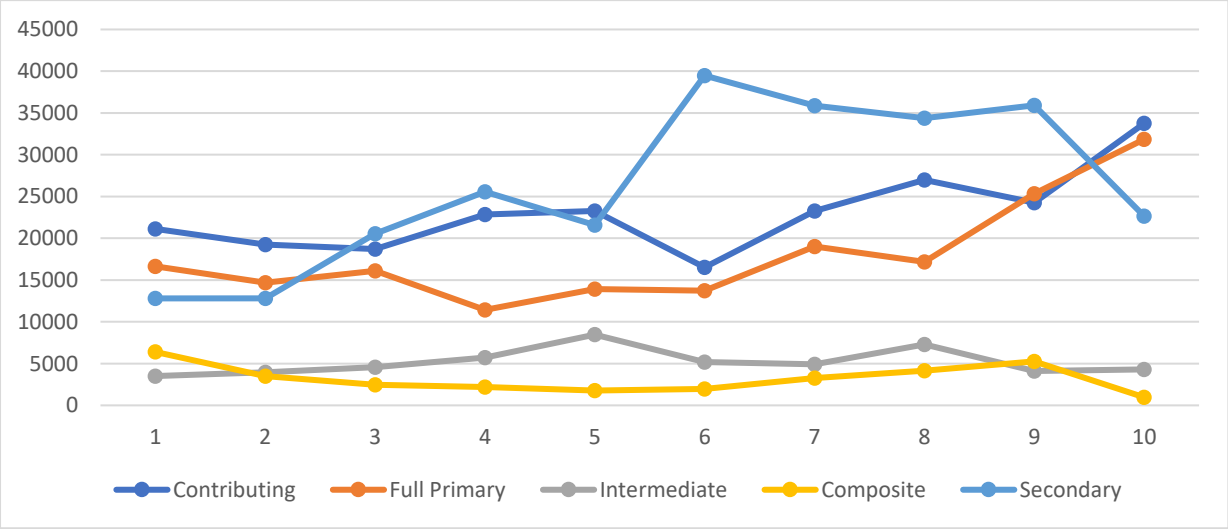
The current state of the New Zealand compulsory education system has been heavily influenced by the Tomorrow's Schools reforms. The decile system that followed those reforms did not cause the changes but has come to define them.

Section 3 examines those aspects of the current situation that would appear to be related to decile if not always caused by it.

4.1 Decile and roll size

The decile system divides schools into ten equal groups, so that 10% of schools are in each decile. However, that does not mean that students are equally divided between each decile.

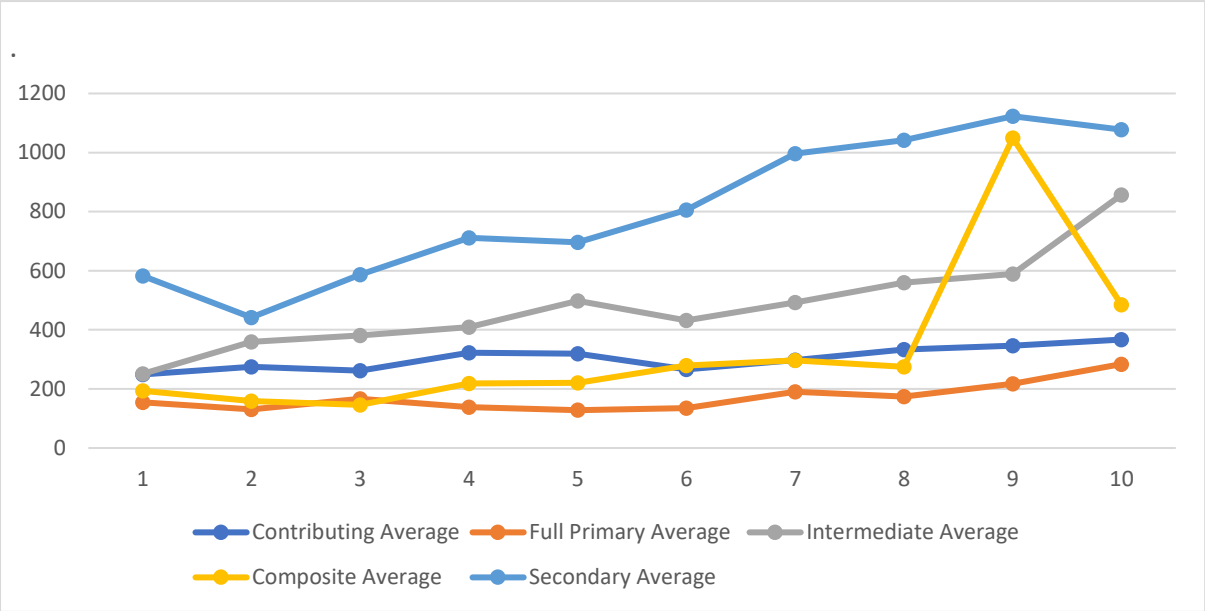
Figure 4-1: Total rolls by type and decile



Significantly more students attend higher decile schools, as Figure 4-1: Total rolls by type and decile shows.

The apparent anomaly with decile 10 secondary schools in Figure 3-1 above can be attributed to school type or situation. Seven of the twenty-one decile 10 high schools are integrated and small. Two, Wakatipu High School and Mt Aspiring College, are in small towns and three are relatively new schools and smaller than the schools surrounding them.

Figure 4-2: Average School Roll by Type and Decile



There is a clear pattern of average school size being positively related to decile.

In

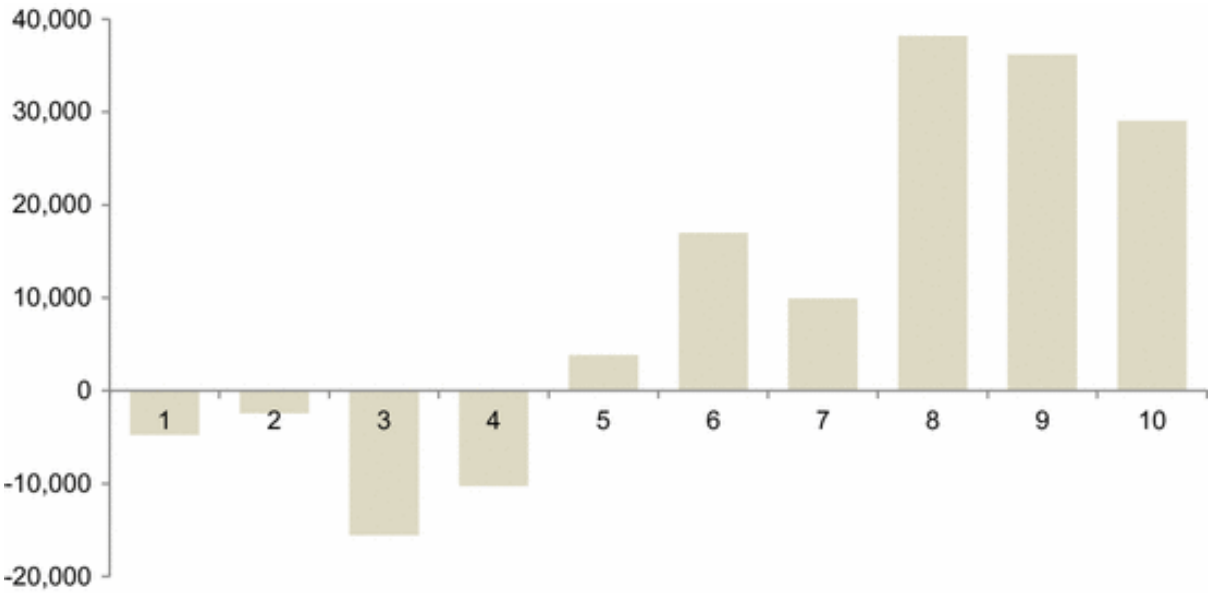
Figure 4-2: Average School Roll by Type and **Decile**, the general pattern is for higher decile schools to be larger. This is most obvious at secondary and intermediate level. High decile schools are around two to three times larger than their low decile counterparts. If comparisons are made in those areas where there are multiple schools of different deciles, the difference in average sizes is even more marked. In East Auckland, the North Shore and the Central West of Auckland the difference in size between the lowest and highest decile schools is around four times.

The difference is more marked at secondary and intermediate because those are age groups where students are more independently mobile. Consistent with the overseas research, there is a pattern of primary age students remaining at their local school irrespective of decile but travelling out of their communities for intermediate and secondary schooling.

"Choice of secondary school is considered more important by parents than choice of primary school. Proximity and travel distances bear different meanings for children of different ages, which might explain why choice is repeatedly found to be exercised more often on secondary than primary levels"[36]

[36] Waslander et al. 2010, 31

Figure 4-3: Changes in numbers of students in schools by decile, 1996 -2014[37]



The trend of size and decile is that between 1996 and 2014 increasing proportions of students enrol in higher decile schools.

The fact that the shift is not even more marked is because by 2014 many high decile schools had reached capacity, some lower decile communities had no accessible higher decile alternatives and because mid decile schools are sometimes the highest decile school in an otherwise low decile community and so were the ones growing in those communities.

In Auckland the patterns seen across the country are similar but are accentuated at the secondary level. There are more than twice as many secondary students in state, non-integrated decile 9 and 10 schools as there are in decile 1 and 2. This is despite that fact that Auckland has the largest decile 1 and 2 secondary schools in the country and two newer small decile 10 schools, Hobsonville Point and Albany Senior High School.

In all communities examined, where there were low and higher decile schools the higher decile schools were always the largest and most likely to be growing while their lower decile neighbours were often struggling to maintain their rolls.

[37] Gordon ,2015

4.2 Decile and ethnicity.

Accompanying the changing distribution of students by decile has been a change in the ethnic profile of schools. Low decile schools are now much more likely to have a greater proportion of their roll made up of Māori and Pasifika students. In many schools in larger urban areas that can mean that over 90% of a school's roll will be Māori and Pasifika. While lower decile schools have seen a growth in Māori and Pasifika enrolments, even more marked has been the loss of European students. Upwards of 70,000 fewer Pakeha students attended decile 1 to 5 schools in 2013 than did in 1996. During that period total Pakeha numbers fell by 30,000 but attendance at decile 6 to 10 schools rose by 40,000.[38]

In all communities examined as part of this inquiry, the lowest decile school is also the school with the highest proportion of Māori and Pasifika students.

4.3 Decile and student movement

In many remote communities, or in communities where there may be geographical or tight zoning and over subscription at the highest decile and desirable schools, there are no realistically available alternatives and therefore students do attend their local school.

However, where movement is possible, the numbers travelling past their local school to attend a more distant school can be surprisingly high. The movement is clearly from lower decile communities to higher decile schools.

This is a notable feature in Auckland. In 2018, 62% of Avondale College's roll is from outside its zone; Westlake Boys and Westlake Girls both have 51% from outside the zone; Rangitoto College 49%; and Mt Roskill Grammar 43%. Edgewater College which is a small decile 2 school has over half of its students from out of zone. Edgewater is unusual for two reasons: firstly, because it is low decile yet attracts students from out of its area; and secondly because it also loses a significant percentage of its in-zone students to schools outside its zone.

Appendix A is the map showing the residential location of students attending Avondale College. The Avondale[39] situation is not especially different from other communities, but it is a good visual representation of patterns of student movement. There are large numbers of out

[38] Gordon 2015

[39] In common with many schools with zones if they did not take out of zone students they would have spare capacity.

of zone students from the West, in particular the much smaller decile 2 Kelston Girls, decile 3 Kelston Boys and decile 3 Henderson High School. By contract very few students travel from the larger and higher decile eastern schools.

Two communities in more detail

To further test the evidence for movement from low to high decile, Auckland's North Shore and Hawkes Bay (Napier and Hastings) schools were selected as area case studies. Their inclusion does not mean that they are unusual, and many other urban areas across both islands could have been used as examples.

On the North Shore of Auckland, the secondary schools (state and state integrated schools) range from decile 6 to decile 10. That has remained relatively constant through the decile revisions since 2000. There have however been significant changes in distribution of enrolments since 2000.

Table 4-1: North Shore Secondary School Rolls 2000 to 2017

	2000	2006	2012	2016	2017	% change
Long Bay College	1,047	1,616	1,581	1,529	1,484	42
Rangitoto College	2,361	2,867	2,794	2,867	2,933	24
Glenfield College	1,057	1,012	716	463	409	-61
Birkenhead College	676	870	726	619	626	-7
Northcote College	898	1,232	1,088	983	951	6
Carmel College	823	916	978	1,028	1,032	25
Takapuna Grammar School	1,322	1,378	1,417	1,485	1,487	12
Westlake Boys' High School	1,574	1,950	2,139	2,078	2,103	34
Westlake Girls' High School	1,700	2,112	2,068	1,878	1,945	14
Rosmini College	844	884	960	1,061	1,058	25
	12,302	14,837	14,467	13,991	14,028	14

The total funded secondary school roll rose from 12,302 in 2000 to 14,028 in 2017. The decile 9 and 10 schools all increased their rolls by up to 41% while the two lowest decile schools, Birkenhead College and Glenfield College, experienced roll decline with the

percentage of the total area student cohort enrolled by those two schools dropping by almost half from 14.1% to 7.4%.40

During this period the total Māori roll on the North Shore rose from 679 to 1,218 and the Pasifika roll grew from 344 to 695. Those additional students attended the full range of schools with all schools except Glenfield College increasing the numbers of Māori and Pasifika students on their roll.

Table 4-2: Number and Percentage of Māori and Pasifika Students in North Shore Secondary Schools

	2000		2016	
	Number	% of roll	Number	% of roll
Long Bay College	40	3.8	97	6.3
Rangitoto College	74	3.1	260	9.1
Glenfield College	150	14.2	149	32.2
Birkenhead College	116	17.2	214	34.6
Northcote College	126	14	242	24.6
Carmel College	63	7.7	125	12.2
Takapuna Grammar School	86	6.5	132	8.9
Westlake Boys' High School	92	5.8	233	11.2
Westlake Girls' High School	97	5.7	224	11.9
Rosmini College	68	8.1	160	15.1
	912	7.40%	1,836	13.1%

The proportion of the roll comprising Māori and Pasifika students attending the two lowest decile schools, Birkenhead College and Glenfield College, has more than doubled while their rolls have fallen. Northcote College which was decile 9 in 2000 was decile 7 by 2016. Its roll has dropped significantly [24%] since a high in 2004 and the proportion of Māori and Pasifika students has risen from 14% to nearly 25%.

[40] At the same time the two state integrated schools have had roll growth of 25%. That is likely to have intensified the competition for students by the other state schools.

Even in relatively high decile communities Māori and Pasifika students will tend to make up a bigger proportion of the lower decile schools.

Decile 7 Northcote College[41] and Decile 10 Rangitoto College combined have a total secondary age cohort of just over 3,800 students. Northcote retains 41% with over 12% going to other co-ed schools and 30.7% to state single sex schools. If this was simply a case of some parents choosing single sex and some choosing co-educational, we might expect there to be reverse flow. But in fact while Northcote loses 214 students to the area's single-sex school option, Westlake Boys High School, it gets just 21 back and for girls the flow ratio is 8 to 1 in favour of Westlake Girls.

If parents are going to choose co-education from the Westlake catchment, they are going to choose Decile 10 Rangitoto College. That school, while losing some boys and girls to single sex education, takes significantly more students from those single sex schools than it loses to them.

The patterns found on the North Shore are also found in Napier and Hastings. In Napier the six state or state integrated schools rolls are again correlated with decile.[42] Lower decile co-educational schools are unable to retain a majority of the students in their immediate catchment areas. As with the North Shore, parents will choose higher decile - whether single sex or co-educational.

Table 4-3: Napier secondary schools' decile and roll

	Decile	Roll
Taradale High School	7	958
Napier Boys' High School	6	1,186
Napier Girls' High School	6	974
Tamatea High School	3	213
Sacred Heart College	5	295
William Colenso College	2	406

If the single sex option is the main reason for enrolment preference in Napier, then we might reasonably predict that the single sex option might take a similar proportion of students in

[41] Birkenhead and Glenfield potentially lose a larger proportion of their local catchment but because they do not have enrolment schemes the data is not available.

[42] Sacred Heart College is an integrated girls' school and its roll is limited by its integration agreement.

Hastings. But as the table for Hastings below shows, the co-educational alternatives are relatively higher decile and the proportion choosing single sex is smaller.[43]

Table 4-4: Hastings secondary schools' decile and roll

	Decile	Roll
Karamu High School	4	825
Hastings Girls' High School	3	721
Hastings Boys' High School	2	695
Flaxmere College	1	333
Havelock North High School	8	896
St Johns College	4	338

Certainly, there will be local conditions relating to the reputation of the school, the perceived qualities of the principal or some other factor including the co-educational-single sex preferences that might be used to explain the size differences but taken as a whole there is a clear pattern across both primary and secondary schools for higher decile schools being larger and, where capacity allows, for them to continue to have roll growth. While large low decile schools do exist, they are much fewer in number and occur where access to an alternative higher decile school is limited by isolation or an enrolment scheme.

As the North Shore and Napier/ Hastings examples demonstrate, it is not being high decile that is most important. The determining factor for student movement is not being the lowest decile of any network of schools. Relativity is important. A relatively low decile in one community can be a relatively high one in another community.

[43] Both Hastings Boys and Hastings Girls High Schools take a large number of students from the nearby suburb of Flaxmere and that decile 1 A school remains the smallest school in Hastings

4.4 Decile and International Fee-Paying Students

At the same time that there has been movement in domestic student numbers there has also been major changes in how international fee-paying student are distributed across schools.

Table 4-5 : International Students by North Shore Schools

	2000	2008	2017
Long Bay College	56	69	151
Rangitoto College	118	126	254
Glenfield College	49	36	46
Birkenhead College	61	50	42
Northcote College	113	80	111
Carmel College	14	41	51
Takapuna Grammar School	52	117	216
Westlake Boys' High School	52	122	209
Westlake Girls' High School	33	100	270
Rosmini College	11	54	26

On the North Shore the numbers enrolled at state or state integrated secondary schools have increased 145% from 559 in the year 2000 to 1,372 in 2017. As a proportion of the domestic student roll that involves an increase from 4.5% to 9.8%.

Lower decile, Birkenhead and Glenfield have experienced a decline in total international student numbers while their higher decile competitors have experienced significant increases. Rangitoto has had 115% growth (118 to 212), Takapuna Grammar 300% (52 to 212), Westlake Boys have increased numbers from 52 to 209 and Westlake Girls from 33 to 270. All those schools will quite correctly point to the ways they use funds raised to support education in their schools.44

[44] Given the numbers and fees involved, even allowing for additional teachers it is highly likely that these schools generate more in net international student fees than they would receive if they were Decile 1A. That is of course without factoring in student donations. In many cases those are at or higher than the funding that schools get set at a rate between decile 2D $632 and decile 3 G at 358. Of course, not all donations are actually paid. (See also Vester, 2016, 129).

4.5 Decile and Principals

There is anecdotal evidence that lower decile schools, in particular in the primary sector, will have a higher rate of turnover of principal.[45] The turnover for the last ten years is shown in Table 3.5. Most schools had had at least one turnover of principal over the last ten years (based on data provided by the Ministry of Education). The table shows a relatively higher level of turnover in the lowest decile schools although the conclusion is complicated because school size is clearly a factor.

Table 4-6: Number of Primary Principals by Decile

Decile	4	3	2	1
1	3	4	14	5
2	1	6	11	12
3	2	6	18	8
4	1	13	14	8
5		3	14	14
6	2	7	28	12
7	2	3	19	13
8		7	18	8
9		6	19	7
10		1	12	10

[45] This is to be expected given that in primary sector, which has many more small schools, there is a tradition of principals starting in small schools and over time moving to larger and larger schools.

Section 5 How is decile seen by different groups?

Section 4 examines the effect of decile and the stigma associated with it.

5.1 Decile is misunderstood

Some form of Funding for Disadvantage (FFD) is applied in many countries. It goes under different labels, the three most common being, Weighted Student Formula (WSF), Student-Based Funding (SBF) or Needs-Based Funding (NBF).

Whatever its label, the central purpose of FFD is to increase funding for schools according to the degree of disadvantage of their pupils. Even critics of much of the policy that surrounds FFD will concede that some students will require additional support.

It is a matter of common sense that students who experience social disadvantage such as low parental income and occupation, disability, remote location, or lack of English proficiency are likely to be more expensive to educate than others.[46]

How need is defined and how it is decided who is eligible and how it is distributed varies considerably from jurisdiction to jurisdiction. Even within countries the approaches used can be very different.[47]

Decile is used extensively in the description of schools, in the analysis of achievement data, in the provision of support and services by outside agencies, in schools' prospectuses and advertisements for vacancies[48], by the media when describing a school and by the real estate industry[49]. Despite its common us the extent to which it is properly understood varies enormously. The official position is this: "Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas decile 10 schools are the 10% of schools with the lowest proportion of these students." [Ministry of Education].

[46] Blaise, 2017, 68.
[47] Chambers, Levin and Shambaugh, 2010.
[48] In the Education Gazette it is more likely that decile will be part of the description of a school when the school is higher decile.
[49] As with school promotional material this is largely restricted to high decile schools.

At one extreme of misunderstanding are those who believe it is a Ministry of Education constructed measure of quality[50]. However even amongst professionals, how it is constructed and the importance of the proportion of students in a school in the bottom 20% of the index is not well understood. Because decile is based on that bottom 20% and does not take into account the socio-economic position of the other students, two schools of the same decile could have considerably different profiles. "In theory, you could have a school which has all of its students from lower middle families who get no benefits but are all in relatively low paying jobs (but higher than the poorest 20% of families) in homes which are on the edge of overcrowding, but not quite there, and it would be decile 10."[51]

In addition, because the measure is based on the mesh-blocks that students live in, any school selection bias can further alter the profile of a school. There is evidence that in fact the movement of students from one community to another wealthier community to attend school does have the effect of taking many of the educationally and socially most ambitious students out of their lower decile community school. As is reported in an OECD working paper on markets in education, more affluent parents are more likely to exercise choice and a recurring pattern across contexts is that white parents tend to avoid schools with high proportions of minority students.[52]

At a community level that type of misunderstanding is much more common. In a 2018 interview with a newly appointed principal the first question asked by a community newspaper reporter was, "Is your first job to raise the decile of the school?"—a line of questioning the interviewer was not easily dissuaded from pursuing. Another Principal appointed to a lower decile school was asked by his father, "what are you going to do to change the decile?"

Despite, or perhaps because of the lack of understanding about decile, the label does have a major impact on how schools are viewed, on enrolment patterns, on staffing of schools and on how students view their educational opportunities. It contributes to the inefficient use of the network of schools.

[50] The extreme view tends to be found only in the International student market and all New Zealand parents interviewed for this report understood that there was an aspect of the socio-economic mix of a community involved.

[51] NZPPTA Background Paper, 2013.

[52] Walander et al 2010, 32

5.2 Decile as viewed by Principals and Teachers

In the field research that was carried out for this inquiry, principals' views about decile had a high level of consistency. Principals understood that schools that served those communities with the highest levels of disadvantage required additional resourcing support. Responses from interviewees followed a theme:

> "Having a system of differentiated funding is valid if you believe in equity. Like it or not higher decile areas have more actual money and more cultural capital."[53]
>
> "If you are a low decile school you are stigmatized. I can't argue with the premise of it – some schools need more funding – end of story. But members of the public see it a measure of quality. We are sorely done by it."
>
> "The negative is that it creates a stigma and a perception of the quality of the education."

There was no doubt across all school types and deciles that decile as a measure did impact on how schools were viewed. Principals, teachers and Board members in higher decile schools recognised that having a high decile conferred advantages in terms of the students they had, their ability to recruit those students and in the recruitment of international fee -paying students.

In general, principals, parents and students in high decile schools were less conscious of decile and saw less advantages of being a high decile school than those in low decile schools saw their decile as a disadvantage.

5.3 Decile and parent perceptions

Parents who send their children to a range of school deciles were interviewed for this inquiry. By and large parents who choose a low decile school and whose children remain in those schools do not refer to decile or necessarily judge the school in the same way as those who choose on the basis of decile. Interviewees did report, however, being questioned about why they chose to support the local lower decile school by friends and family. Others reported being nervous about their choice but in most cases, once associated with the school were happy with their choice.

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[53] The belief that decile funding was designed to replace the funding that low decile schools could not raise locally was still occasionally raised by principals.

It is significant, however, that parents in low-decile communities who reported being comfortable with their choice at primary school would still choose schools outside their neighbourhood for secondary school. A partial explanation is the relative mobility of secondary-aged students. But many parents continued to drive their children to secondary school.

Not surprisingly low decile schools were concerned about the impact of decile as a label of lower quality.

As overseas research has found, socialized stigma attached to decile and the discourse surrounding it within our schools contributes to feelings of shame and poor esteem.[54]

5.4 Decile and its impact on roll

Data presented in section three above shows clearly the movement of students out of some communities to attend a school in a higher socio-economic community. That movement has a cascading effect. As one principal noted about their school:

> "A huge percentage go out of the "zone" and this school is seen by many as the school you go to if you can't get to go anywhere else."

The school that was attracting those students was in turn losing students to another higher decile school. As the earlier data shows, decile is related to schools' ability to attract students. As respondents consistently noted, being low decile definitely impacted on student numbers.

> "Student enrolment. Yes, in a major way. The families can be concerned to coming to a low decile school. Definitely a negative effect on enrolment."[55]

> "It impacts on enrolments. People think they will get a better deal/ higher quality/ better friends or upward mobility at a higher decile school."

Mid decile schools [depending on the surrounding schools] saw it slightly differently as they tended to lose students to higher decile schools and gain them from lower decile schools.[56]

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[54] Cloutier-Bordeleau.

[55] This principal outlined what they do to get parents in and to change perceptions but said that even when parents say what a great job the school is doing they may well still not send the student to the school.

[56] In the NZ Herald [17 September , 2018] Edgewater College which is decile 2 had the 3rd highest proportion of out-of-zone students in Auckland. Edgewater loses over 50% of its in-zone students to higher decile neighbours while continuing to attract significant numbers from schools in South Auckland.

> "For some [this school] is seen as a step down and for others it is a step up. We do have parents who believe in true state education and in attending their local school."

Only for some interviewees was decile regarded as having little or no effect on current parent enrolments. That was mostly a feature of low decile primary schools but also evident in some decile 1 secondary schools. As one principal put it:

> "It has no effect. [Parents] know where the school fits. They know this is a gangsta community. The treasury data shows that [this school] hits the jackpot on every measure."

In summary, most respondents believe decile impacts on a school's ability to attract and retain students.

5.5 Decile and staffing

In a tight teacher supply environment, principals at all deciles felt teacher recruitment was difficult but the problems were definitely more pronounced in lower decile schools.

> "Does our decile affect our ability to recruit staff? Absolutely. Misconception of what it means. Teachers coming here get asked "You are teaching there? It must be hard."

Another principal who was now at a high decile school having previously been principal at a decile 1 school commented that his current staff were nervous about going to teach in a lower decile school even when the advertised positions were promotions.

One principal who had been the head of a number of schools across the decile range believed at a low decile school they had been able to attract great staff and that the staff at the current much higher decile school had admiration for teachers who do choose to go to work in low decile schools.

The perceived reluctance on the part of teachers to apply for positions in low decile schools was linked primarily to a perception that behavioural issues would be more of a problem. Teacher trainees expressed this sentiment. There were those who were either nervous about low decile placements or, once in a low decile school, expressed amazement about how good the students were. Once in teaching positions in low decile schools however, teachers were generally positive about the school and the students. That positivity is shown in the staff retention data for low decile schools. While some low-decile schools experience some additional staff turnover, the evidence is that they mostly maintain a stable staff and, importantly, report retaining their best staff. While teachers tend to agree that teaching in a low decile school is harder and does have involve extra demands there is still a willingness to work in those schools. As one teacher noted:

"People who do go to teach in lower decile schools often have a real desire to make a difference. It's seen as something of a missionary fervor."

Others reported that they had occasionally lost teachers who thought teaching would be better at a higher decile school.

> "We have lost a few 'muppets' who thought that their lives would be better up the scale."
>
> "I'm going to a school where the kids want to learn."

In a similar vein, principals also reported strong staffroom morale in many low decile schools. One when comparing two schools of different deciles one noted,

> "At [this school] all the teachers are in it together. They know the job is to do the best for the kids. They celebrate when kids do well. At [the higher decile school] that single shared purpose was not so clear."

Principals of lower decile schools were strongly supportive of the qualities of their staff but there were some concerns expressed that being lower decile means some teachers may conflate decile with ability and unconsciously believe that "these kids would not be able to do that". One principal reported:

> "Teachers by and large don't have a deficit model, but we can get more involved in aroha than pedagogy".

They went on to say that there was a great deal of emphasis on relationships and culturally responsive pedagogy. Their chief concern, however, was that while it's not deficit thinking, it can lead to "learned helplessness since we will keep trying and making up the gaps." That idea of the school being responsible for more of a student's progress was a common theme.

For teachers, decile is also a label. The clear majority disagree with its use as a label, but nevertheless understand that it can influence the way they view their students—in particular their expectations of how much pressure for achievement comes from home. Principals say that in many cases teachers underestimate just how concerned parents are and what those parents' hopes are for their children. This can be especially so with Pasifika parents, who generally approach school and teachers with caution and are often reluctant to question them.

In summary, decile impacts on the ability to attract and retain staff.

5.6 Decile and students

The feedback gathered from secondary-aged students confirms that they are aware of their social position. Cloutier-Bordeleau describes the impact of social stigma on young people:

"…shame is not always a result of the financial stress of their circumstance, but rather of the false associations of their socio-economic status in our culture." 57 This investigation found that for low decile students this is a source of frustration rather than shame.

> "Students? Big time. They tend to be defensive. They get the same attitude we do from the community and friends. Coming here is seen as a lesser option."
>
> "They have been told by their friends that [our school] is a poor school which does mean that they downplay their academic aspirations. They see it as a stigma of them and of the school."
>
> "They were sick of people judging the school by its decile and assuming that they were dumb, violent and bad people."
>
> "Senior students, when given the chance to say what they most wanted to change in this [low decile] school, it was decile."
>
> "The students are conscious of their status and for some there is a sense of feeling defensive of the school. But they are genuinely proud of the school."

That sense of defensive pride was reported in many interviews.

> "Every single student leader said [when being interviewed for a leadership position] that they wanted to have an impact on that perception."
>
> "Our prize giving speeches start with, 'I applied for [name] College and didn't get in. I didn't want to come here but now I am so pleased that I did.'

Despite the positive attitude to their schools, concern was expressed by some about how decile and the perception of their school impacts on how they view their potential and life trajectory.

> "They have been told by their friends that [ ] is a poor school which does mean that they downplay their academic aspirations."
>
> "It had a subtle impact on their attitudes. As a principal I compared us to decile 2 when analysing results, so also played into the hands of decile."

[57] Cloutier-Bordeleau, p98

No data was collected for this inquiry on the impact of esteem on achievement at school, but research elsewhere suggests that a "stereotype threat affects students cognitively, and therefore academically when being tested in comparison to their counterparts." [58]

Other researchers have found that this can extend beyond formal outcomes to "factors such as dispositions towards learning and school; feelings of anxiety and lack of confidence about school; and perceptions of discrimination as children try to negotiate the economic, social and relational constraints associated with poverty."[59]

There was also an awareness by principals and teachers of the effect of financial stress and family obligations on older students. This is consistent with the literature where "Research with low-income children shows that they are active social agents within their families and that when children experience increased anxiety and concern about money, debt, insecurity and unemployment they are likely to restrict their own needs to try to reduce pressures within their families".

Versions of that conclusion were also reported by respondents to this study here with principals and parents both reporting cases where older students in low income families need to take increased responsibility for family income and the care of their younger siblings[60]. In some instances, this involved students being away from school caring for sick younger siblings (or more rarely, sick relatives), being late to school because they needed to drop younger siblings off at their schools or working long hours in the evenings or weekends in order to support the family income.

In the most socio-economically disadvantaged communities there was a strong sense that the students' lives, both at primary and secondary level are defined by the community not by the school.

The school choice movement and associated division of schools into good or bad, rich or poor has contributed to real changes across the network of schools.

The feedback is that the decile label drains low-decile schools of the best academic role models in their local communities.

[58] Cloutier-Bordeleau, p99
[59] Ridge, 2013, 415

Section 6 Support and Challenges

As with any significant change to an established system, it is helpful to consider the support that the current system has and what the likely support for, or opposition to any replacement might be.[60]

6.1 Support for targeted funding for disadvantage

Possible changes to the decile system have been well signposted and principal groups have been briefed on the use of family socio-economic data to create a more accurate and targeted system. At this still largely theoretical level, those interviewees working in schools, principals, teachers and boards of trustees (independent of the decile school they were currently in) all support a differentiated system of resourcing according to need.61 They understood the reasons for why such additional support was needed and saw the clear link between socio-economic position and barriers to learning. Parents were more likely to also link in the ability to raise funds locally but did understand that additional funding support was helpful:

> "We need a system to give different amounts of money based on different needs."
>
> "We need a system to address disparity and it is a blunt instrument, but it is something."
>
> "Having a system of differentiated funding is valid if you believe in equity. Like it or not higher decile areas have more actual money and more cultural capital. I think it is an excellent way of resourcing schools. It acknowledges that there are gaps which are pretty much poverty."

The finding is that there is universal espoused support for targeted funding for disadvantage.

[60] Education is littered with situations where what appeared to be good ideas foundered on unanticipated and and unplanned for opposition.

[61] This is consistent with the findings of the last major review the 2003 Inquiry into Decile Funding in New Zealand State and Integrated Schools.

6.2 Potential opposition to change.

What we do not know is the extent that support will remain solid once a more concrete proposal is made and schools and communities begin to calculate how it will impact on them. So, what might any opposition to change be based on? Six propositions were suggested by respondents:

- Additional resourcing is not needed because it makes little or no difference.
- Low decile schools are already getting the correct amount or even too much.
- Mid-decile schools are disadvantaged.
- The true level of current decile funding is misunderstood and overstated.
- Do schools effectively use any additional resourcing that they receive?
- Absolute and relative funding changes.

Additional resourcing is not needed.

Some economists have long been skeptical of resource-based education policies, based in part on observational studies showing small or zero effects of additional funding:

"The lack of an observed positive relationship between school spending and student outcomes is surprising."[62]

"Class sizes have fallen, qualifications of teachers have risen, and expenditure has increased. Unfortunately, little evidence exists that suggests any significant changes in outcomes have accompanied this growth in resources devoted to schools."[63]

Recent research has not supported those conclusions, but it is worth considering why the relationship between spending on education and student outcomes is not stronger.

The first limitation is that test scores are an imperfect measure of learning and fail to take account of the full impact of additional resourcing on subsequent adult earning and life success.[64,65]

Secondly, other potential benefits of increased spending are unlikely to be measured. These include the change in the length of time a student remains at school, their success post school, incarceration rates and those less measurable indicators including enjoyment of school and the likelihood that a student will return to some form of education or training post school. "For

[62] Jackson et al, 2016, 158
[63] Hanushek, 2003, 67
[64] Jackson et al, 2016.
[65] Lafortunes et al, 1997

children from low-income families, increasing per pupil spending yields large improvements in educational attainment, wages, family income, and reductions in the annual incidence of adult poverty. All of these effects are statistically significant and are robust to a rich set of controls for confounding policies and trends."[66] The impact of increased spending was found to lessen for students from wealthier backgrounds.

Furthermore, there is a well-documented lag between increased resourcing and changes in achievement. As a 2015 UK report notes, "Success in some schools indicates that the Pupil Premium has promise. However, the Department does not expect the full impact of funding to be felt until 2018 for primary schools and 2023 for secondary schools – the years, respectively, when eligible pupils will have been funded for their entire education."[67] Even Hanushek who is at the forefront of much of the questioning of the relationship between spending and outcomes does recognise that it is easy to underestimate the cumulative nature of the educational process. As he notes, "relating the level of performance at any point in time just to the current resources is likely to be misleading."[68]

This has important implications for New Zealand reforms. That is, while there is a well-researched relationship between increased spending and improvements in educational outcomes those change will not occur immediately. One of the issues with many NZ policies in education is that there is an expectation that there will be a direct correlation and an almost instant result. Quick change can occur at an individual student or classroom level, but wider system wide change will take an extended time. Secondly, the measure of what constitute successful outcomes need to be wide enough to capture more than a simple test score.

A further issue to deal with is that the prevailing model is one based on the individual school as the locus of change. The IES model of a network or community of schools working together is a promising alternative to that but as noted elsewhere in this inquiry progress is slow and suspicions about its true purpose remain.

It is also important to consider the possible countervailing forces such as increased housing segregation over time and accompanying schools' segregation, an increase in single parent families, decreased employment security, increased residential movement and student transience.[69]

Finally, the complications above do not mean that money and resources never matter and it does not mean that money and resources cannot matter. As Candelaria and Shores [2011] write:

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[66] Jackson, Johnson and Persico, 2015, 212

[67] Education, 2015

[68] Hanushek,

[69] The negative effects of transience on student achievement of both the transient students and their classmates was regularly referred to by principals in low decile primary and secondary schools.

"Increased school funding alone may not guarantee improved outcomes, but our findings indicate that provision of adequate funding may be a necessary condition."

Low Decile Schools are already getting the right amount or even too much.

In the 2003 Parliamentary Report of the Education and Science Committee entitled "Inquiry into Decile Funding in New Zealand State and Integrated Schools", referred to above, one of the six recommendations was that "the distribution of Targeted Funding for Educational Achievement be reviewed in terms of the perceived imbalance in favour of low-decile schools." Two members of the committee were of the view "Low-decile schools have much greater funding than the disparity in education achievement would warrant."[70]

In the feedback received for this inquiry that view still existed. As one principal stated, "[Description] schools have more money than they know what to do with." Amongst principals of decile 1 schools there was a strong belief that the additional funding they received was helpful but that additional support would let them tackle barriers that they were not able to currently.

A fundamental issue for all jurisdictions is a lack of research on the additional costs associated with raising the achievement levels of disadvantaged students.71 In the U.S for example there is also considerable variation in the implicit poverty weightings with rates ranging from 2% to over 40%. [72] [73] Carey [2010, 23] concluded that more often than not the poverty-based funding levels are a function of available resources and the intuition of state policy makers. Where research has been done there, they have found that the poverty weightings need to be much higher that they currently are.[74]

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[70] Donna Awatere (Act) and Brian Donnelly (NZ First).

[71] In fact, (5) Psacharopoulos, 2006, 134, would argue that most education budgets are managed by inertia, with allocations based on last years adjusted for inflation. This he says is tantamount to the absence on any policy on efficiency or equity.

[72] Carey, 2010.

[73] Care needs to be taken with U.S. figures because there can be significant differences in how that weighting is calculated. Never the less, Massachusetts is recorded as having a poverty funding of over US $5000 per student in 2010 while Arkansas has $111.

[74] Ibid.

Furthermore, there is a seeming lack of substantive research into the impact of concentration. In the Dutch system there is a weighted student funding [WSF]75 as well as a more recent [2006] addition restricted to primary schools. A threshold of 6% applies so only when a school has more that 6% of their students eligible for funding does the payment start. 76 In the U.S., the number of children from low-income families at the school must be at least 10% and at least 5% of the school district's school-age population. More than 56,000 public schools used Title 1 funds to serve more than 21 million students. School districts may use the funds school wide if at least 40% of the students in that school come from low income families. Otherwise, the funds must be targeted to those students who qualify. [77]

How these thresholds were established is not clear. Similarly, the weightings applied to the current decile system. What is clear however that the level of concentration of disadvantage is of central importance. More research is needed as to why there is such a strong link, because without that information it will be difficult to know where to apply the additional support and in what amounts.

Mid-decile schools are disadvantaged.

This is a concern that was expressed often by principal respondents, consistent with concerns that have been expressed previously by NZEI and by PPTA. All have noted that funding available through decile sharply abates from decile 1 so that by decile 3 the per student amount is less that 25% of the $941/ pupil that decile 1A schools get. Secondly, mid-decile schools often struggle to raise funds locally. To some extent that reflects the misunderstanding that decile is designed to compensate for the ability to raise funds rather than to compensate for disadvantage. Certainly, mid-decile schools are less likely to have large numbers of international fee-paying students and typically have lower school donation rates and collect a lower percentage of those than their higher decile neighbours.

"Mid-decile schools have widely varying capacity to access local funding as the proportions of middle- and higher-income families they serve will vary even between schools of the same decile." (NZPPTA, 2013)

[75] Based on parents with low levels of education, bargee children, caravan dwellers and ethnic minority pupils whose parents have low levels of education.

[76] Owings et al, 2015.

[77] Ibid, 155.

There is still the belief that mid-decile means a school has some socio-economically advantaged students and some low socio-economic students. Even high decile schools will comment that "we have low-decile kids as well."[78]

"We've got some real poverty with different groups in our school . . . and the broad brush that high deciles don't need additional funding is actually a blunt instrument." [Principal of a Decile 10 School].

"We're a decile five school and have kids from so-called decile one homes and decile 10 homes, so we get hardly any funding. There's nothing extra for our disadvantaged kids." [Stuff, September 8, 2013]

"Meanwhile, mid-decile schools get hit at both ends; not only do they attract less decile funding, but they miss out on programmes aimed at low-decile schools, including social workers in schools, Duffy Books, and KidsCan food, shoes and raincoats." [Education Review, 2015].

The true level of current decile funding is misunderstood and overstated.

Misunderstanding takes three main forms.

The first overstates how much resourcing is actually distributed through the decile system. Dr Terry Crooks in his 2003 submission to the parliamentary committee reviewing decile funding referred to a funding difference of 2 and a half times but given the total size of the decile pool this can clearly not relate to the actual amount of funding. Less than 6% of all resourcing provided for schools arrives as decile funding.

The second misconception is how much each pupil generates through decile. At decile 1A the average funding is $941 but fewer than 3% of the total New Zealand school population attends a decile 1 A school. Nevertheless, if commentators are reporting on the large amounts of support low decile schools get they will inevitably choose the decile 1A figure.[79]

Finally, some analyses on the supposed financial advantage of low decile schools will calculate the total funding/ per student of a decile 1 school and a high decile school. Appendix B covers this in more detail but basically what that does is conflate decile funding with the additional funding [operational and staffing] lower decile schools get because they are small. Comparing

[78] In many cases that will in fact be true, suggesting that some may not recognise the significant impact of concentration.

[79] Similarly, school newsletters aiming to encourage parents to pay the school donation will compare what their higher decile school would have received had they instead been decile 1 A.

the cost/ student of a small low decile school with a larger high decile school is simply a misuse of the funding figures.

Do schools effectively use any additional resourcing that they receive?

Some interviews reflected a concern on how low decile schools currently used the additional funds they get.

"[Name] school gets about $[amount] more and the question has to be asked- what do they do with it?"

"How is that money being used to promote student achievement?"

Some schools currently feel squeezed by the current funding system and it is not surprising that principals do question how schools that receive a lot more resources use it — especially if it seems to be being used to fund activities and programmes (including 1st XV programmes according to one respondent) that their own school can't afford to do. Unfortunately, there have been high profile and public cases where the use of funding has been questionable. It is important not to overstate concerns about misspending, although a minority did believe that schools should need to be able to account for how they used any additional resourcing. [80]

Concerns about how funding is used is not limited to New Zealand and all jurisdictions grapple with the ways in which resources for disadvantage are used. In the U.K. a report by the Comptroller and Auditor General Funding for Disadvantaged Pupils found that schools may use the Pupil Premium on approaches that may not be cost effective, based on current evidence as to best practice, reducing the funding's impact.[81] Clearly one of the main factors that will determine how successfully additional resourcing impacts on student outcome is how the resource is applied. "An unresolved question and high-priority issue for future research concerns the relative efficacy of specific school resource inputs that the marginal dollar of targeted educational spending can determine, such as smaller classes versus higher teacher salaries versus capital or building expenditures and other spending categories."[82] That concern

[80] When discussed principals in particular were concerned about the additional workload that might create and also recognised that accounts can be manipulated to give the desired result.
[81] National Audit Office, 2015.
[82] Rucker C Johnson, 2015

was not reported by any who responded to this study though a minority did believe that schools should need to be able to account for how they used any additional resourcing. [83]

It would make no sense to make additional resources available to schools before the Ministry has shared well-researched approaches to using additional resourcing. Any implementation plan should also look to ensure that teachers are also well informed. Schools will need a reasonable lead in time to plan for how they will use additional resources that come out of the final package. If, for example that includes such initiatives as more and more highly trained support staff then that training needs to have started and teachers need to have had PLD around how to effectively employ these new roles in their classrooms. A more common response was a concern that without decile some of the other assistance schools received would be more difficult to access as outside providers used decile as a way of determining which schools received support.[84]

New Zealand is different from many of the countries that also used a needs based targeted funding system in that we already have a high degree of school autonomy. In the USA for example, the key reasons for Funding For Disadvantage are to improve student achievement, promote accountability for school-level decisions, increase transparency in how resources are allocated, and increase equity in districts. It builds on the notion that those working in individual schools are in a better position than centralized decision makers to understand the needs of the students being served and, thereby, are better able to match the utilization of dollars with the instructional program needs of the students.

Schools in New Zealand have considerable discretion on how most funding and staffing allocations are used. That flexibility fits well with the notion that those working in schools have the clearest understanding of their particular context but it does mean that we do face some risks identified both in New Zealand and overseas.[85] These include; a lack of system wide oversight, questions about Boards of Trustees capacity to make effective planning and budgeting decisions, insufficient advice and guidance as to well researched and proven strategies with which to address disadvantage and limits on actions that can be taken. For example, if teacher compensation was an evidence-based way of improving teacher recruitment and retention in schools with high levels of disadvantage our current rules would not allow that.

While the money is likely to be spent in the honest belief that it is being put to educationally effective use, the problem is that what was considered good educational practice in the past might now need to be refined or set aside and replaced. Even targeting or ear-marking the

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[83] Principals in particular were concerned about the additional workload that might create and also recognised that accounts can be manipulated to give the desired result.

[84] This included access to trust funds to support students in need, "Books in Homes" and the funding of nurses in decile 1 to 3 schools – to be increased to include decile 4.

[85] Wylie, 2012. Vester, 2016. Chambers, et al, 2010.

money is not sufficient if the targets themselves are not best-practice in terms of enhancing performance.

Some have argued that the formula used for determining funding need to include an "improvement" aspect and argue that both equity and efficiency may be achieved by developing a composite budget allocation formula incorporating both needs-based and improvement elements.[86] Their argument is that unless there are incentives for improvement, many low-achieving schools, in receipt of additional, differential funding, may continue to tread water rather than improve.

Absolute and relative funding changes.

Without change to the existing competitive model of independent self-managing schools, it is highly likely that support for any changes to resourcing that impacts on both the relative and absolute funding for schools will be dependent on how those changes impact on each school. There have been public statements by a previous Minister of Education that no school would get less than they already do, something that some respondents to this study referred to. Most believed that some schools need more support. There was also a relatively strong view that no school should get less. There did not seem to be a recognition that, by giving no schools less when the current distribution may well be giving them more than their profile of disadvantage justifies, you would be locking in an unfair advantage.

Schools were clearly considering how any changes might impact on them.

"Until you get the numbers on the table you don't know."

Others had seen how the recent adjustment to the way a small amount of additional decile funding was distributed and were concerned.

"In our case it works against us. When they did the TARG funding we had [number] kids identified and [another local school] had the same number but they will get a lot more money than us." [87]

There was some concern expressed that existing funding was not going to be increased, but simply reallocated. Interviewees agreed this would be a source of considerable opposition.

[86] BenDavid-Hadar and Ziderman, 2011. (1) (2) (3)

[87] This related to another school that was smaller but a lower decile. The concentration factor in the decile calculation that creates the situation described will continue and possible increase under a new system.

Section 7 Resourcing while mitigating for stigma.

Section 6 outlines possible approaches to the provision of targeted funding and considers how the stigma that is attached to decile might be mitigated against.

The decile system for funding was developed as a way of more efficiently and fairly allocating targeted funding. Those who can remember the previous system all recognise that it was a change that was needed and that it was a largely successful replacement.

After over 20 years, with few changes to the basic model[88], there is now strong support for a comprehensive review of school funding. Reasons include concerns that it no longer accurately targets need, that it is inadequate for the levels of disadvantage and because of the unintended stigma attached to being low decile.

That final concern was in the minds of the architects of the system who were aware of the potential for its misuse and tried to hold the line against the decile of each school being publicly released.[89] They were unsuccessful in that. These types of unintended consequence of policy are not unusual and those who initiate policy are not always able to control precisely how that policy works in practice. This can mean that even when a government puts in place a policy to address an important need that discursive thrust can be "contested and reworked, by the capacity of senior managers, fueled by local public-market necessity, to continue to privilege competition and rivalry". [90]

7.1 Framing the problem.

Despite the fact that educational outcomes and academic achievement are linked to social position and that poor levels of achievement correlate closely to other measure of social disadvantage there is still a strong tendency to frame the problem as a problem within the education system. Respondents working in low decile schools voiced the opinion that the issues of underachievement cannot be addressed by focusing almost exclusively on the school as the agent of change.

"The framing of the problem in this way also leads potentially to a 'blame culture' in which neighbourhoods, communities, parents, 'inadequate individuals', schools, their leaders and

[88] The proportion of Maori and Pasifika students was removed from the calculation in following the then leader of the Oppositions 2004 "Orewa Rotary" speech.
[89] As noted elsewhere in this report, respondents strongly supported not making the final school classification of need publicly available.
[90] Bagley, 2006.

teachers are held to be accountable both for the circumstances in which they find themselves and for the solutions to the problem."[91]

In any new iteration of funding for disadvantage the design should look to prevent such consequences or where that is not possible, mitigate against them. That is vitally important because if any new policy designed to enable schools to better meet the needs of students at greater risk of not achieving inadvertently adds to the shame experienced by students attending those schools or their families or to teachers and principals feeling they are in some way to blame, they will prove counterproductive.

The OECD while advocating strongly for extra resourcing being channelled through schools to help to overcome the effect of social background unequivocally concludes: "The stigma arising from labelling of particular schools as 'for disadvantaged children' should be avoided."

7.2 Avoiding potential stigmatizing effects.

In New Zealand, those working in schools or for associated government agencies are mindful of how any alternative measure while addressing the issues of targeting and adequacy might also inadvertently end up once again becoming a label that stigmatizes those that receive the additional resourcing and strongly support any measure which can prevent that happening.[92] There was a common awareness that the way that support was calculated and reported was central to how it might be received and the potential for it to stigmatise those schools and communities that received it.

Respondents recognised that the draft equity index that was proposed by the previous government is much more predictive of educational underachievement than decile. However, they were concerned that some of the components used in the index, which will be discoverable, could increase stigmatisation. Parents are not unaware of how their communities are viewed by others and accept that others may be better placed socio-economically than them. That is of much less concern to them than suggestions that their communities may have high rates of other negative social behaviours such as teen-age pregnancy, violence or criminality. Those concerns are in fact real and need to be addressed. All of the components in any draft model need to be reviewed through the lens of how they will be viewed by the public and parents in addition to their predictive power. As noted previously, people in lower socio-economic communities rail against unfair stereotypes. Any new system of resourcing should not play into the hands of such stereotypes.

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[91] Mowat, 2018,

[92] In fact, there are concerns that depending on how the new index is created the stigmatising impact could actually be worse.

Possible changes do not come without significant risk in terms of the stigma associated with any differentiated resourcing, but support remained strong even when respondents saw the implications of an alternative model.

In practice, any differentiated resourcing to schools is discoverable and almost all respondents to the research for this inquiry were certain that there would be attempts to create a simple index. Never the less they were hopeful that a new replacement system could mitigate against that and a range of suggestions were received.[93]

Three general approaches were suggested:

- Create a profile or series of "indices" which makes creating a single measure difficult.
- Provide support in ways that target different types of support and areas of need that again make a single number difficult to create.
- Provide high levels of support in ways that if the public and parents were aware of that support they would view recipient schools favourably. In this approach the issue is tackled head on. "We are going to invest in these schools".

No detail of these approaches was sought, although there was animated discussion about how they might work. Decile has the problem of being a single number between 1 and 10. If a replacement system looked instead to create a series of separate indices based on different aspects of a schools' context each addressing a different aspect of disadvantage, that would give each school a "profile" rather than a single number.[94] Respondents were concerned about a single measure and the fact it is discoverable. By not creating a single metric in a disadvantage calculation and by creating a more nuanced set of disadvantage supports, the additional detail can make creating a "quality index" and the subsequent misuse of that much more difficult.

If that were possible then the additional resourcing that came with each part of the profile could be provided, and therefore reported, separately. This is undoubtedly a more convoluted and complicated process. It would involve grouping different components of the disadvantage calculation into the smaller number of parts of the profile. Even it were possible to work this way, the effort might only be made if the desire to avoid effectively creating another de facto measure of quality is seen as important enough. Furthermore, because the new system will recalculate each year the effort of creating an index becomes an annual burden.

Some of the impacts of disadvantage show up through easily measured and verified behaviours including poor attendance, transience and poor classroom behaviour. Appropriate approaches to those types of identifiable outcomes could be resourced specifically to address them. This is

[93] Most would much prefer for any measure of support to not be publicly available; but recognized that in a public education system with transparency rules, this would be impossible.
[94] PPTA, 2013,

already done with ESOL funding. One benefit of tagged funding for identified barriers is that it could focus schools on dealing with those barriers.

Careful design and management of the way in which any additional resourcing is provided can also contribute to the reduction of stigma. The current system allocates additional resourcing via the operational grant. There are good reasons to broaden that approach and include changes to the staffing formula. [95]

7.3 Support via staffing.

In view of other reviews currently other way, attention does need to be paid to leadership preparation for working in schools with high levels of disadvantage. Enhanced access to professional learning and development for teachers working in these schools seems an important accompaniment to any measures to deliver equity.

As noted previously, New Zealand is unusual in that there is no link between the staffing allocated to schools and the degree of disadvantage. There was positive support from respondents for any new resourcing system to consider staffing that enhances equity. This is not a new idea and was in fact a major recommendation in Lauder et al's paper on the consequences of the market approach. "At the same time we need policies on staffing of schools in 'deprived' areas which reflect the reality of the situation."[96]

They are supported by many others working and researching in the field including the OECD:

"Disadvantaged schools have the greatest need of experienced teachers, but in many countries the "difficult" schools can only attract the less experienced teachers. There should be incentives for more experienced teachers to work in these schools."[97]

There is a strong body of research that recognises the importance of school leadership and teachers in raising achievement.[98] The 2018 OECD publication Effective Teacher Policies: Insights from PISA recognises that the quality of an education system depends on the quality of its teachers. One key take-out from the interviews carried out for this inquiry was widespread

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[95] Staffing was regularly raised by respondents. This should not be confused with vouchers. Staffing would be a separate component and not as an addition to the operations grant.

[96] Lauder et all 1999, 96

[97] OECD. Page 7. If this were to happen an issue that would need to be worked through would be the packages for principals and teachers already working in those schools as it can't be assumed that they would meet the criteria applied to a recruitment plan.

[98] Teske, P and Schneider, M, 1999, The importance of Leadership: The Role of School Principals. Beatriz Pont et al., *Improving School Leadership – Volume 1: Policy and Practice*, (Paris: OECD Publishing, 2008).Organisation for Economic Co-operation and Development, *Teachers Matter: Attracting, Developing and Retaining Effective Teachers* (Paris: OECD Publishing, 2005);

recognition that principals and teachers play an important part in any approach to raising the achievement of higher needs communities. The personal characteristics and experience of those people was vital. There is research internationally that concludes that schools serving poorer communities struggle to attract applicants and tend to have staff that are less qualified, more likely to be at the beginning of their teacher practice, are more likely to be teaching outside their subject specialty and more likely to leave, often to teach in higher socio-economic communities.[99]

By contrast, research on the positive impact of governance structures on school performance or effectiveness is rare. When asked about the contributions of Boards of Trustees to the issues of disadvantage, most principals interviewed said trustee contribution was minimal.

Certainly, the popular press and media are given to linking improvement to a single initiative or change, usually a principal or teacher who turns the lives of children from disadvantaged communities around. While accepting that leadership was vital, the notion of the "heroic leader" solving a school and community's problems was strongly resisted by many interviewees.

The same OECD publication went onto state that "… the quality of teachers cannot exceed the quality of the policies that shape their work environment in school and that guide their selection, recruitment and development."[100] It is those policy levers that hold promise for the development of strategies, linked to resourcing, that can help address disadvantage. That is, any new resourcing system, needs to build in provision for staffing, both teachers and principals.[101]

This report did not investigate the average pay rates of teachers in different deciles but when San Francisco tested for that, they found that on average, schools serving the highest poverty student populations tended to have teachers on lower salaries because they were the teachers who were earlier in their career. School serving lower need communities tended to have the most experienced and therefore most expensive teachers.[102] Neighbouring Oakland tried a system that looked very like the bulk funding model. The rationale being that with less-experienced teachers and therefore lower teacher-related charges against their budgets, higher poverty schools would have more resources that would permit them to provide smaller class sizes and offer increased professional development opportunities. This worked to a degree but

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[99] Lankford, H. Loeb, S and Wyckiff, J. 2002. Teachers Sorting and the Plight of Urban Schools: A Descriptive Analysis. Educational Evaluation and Policy Analysis. 24, 1. 37 -62. Gagnon, D. and Mattingly, M. 2015. Rates of Beginning Teachers: Examining One Indicator of School Quality in an Equity Context. Journal of Educational Research. 108, 3. 226-235.
Donaldson, M and Johnson, S. 2011. Teach For America Teachers: How Long they Teach and Why Do They Leave. Phi Delta Kappan. 93, 2. 47 -51.

[100] OECD. *Effective Teachers Policies*

[101] In fact some respondents felt that parents being aware of the extra staffing that their school would be getting would be viewed positively.

[102] In 2008, voters passed a tax that provided teachers with additional compensation when serving in hard to staff schools, i.e. those with high levels of disadvantage.

problems arose because those preferred working conditions eventually supported and encourage retention of more senior teachers which then led to budget shortfalls.[103] Questions might also be asked about the assumption that the most experienced teachers are in fact the best teachers for working in schools with high levels of disadvantage. That proposition was not tested with respondents but as Hattie's work on "expert versus experienced" teachers would show the two are not necessarily the same. Experience allows the development of those skills that have been shown to make a difference but does not guarantee it.[104] Furthermore the personal qualities that allow teachers to connect with and engage students in high disadvantage schools are not related to number of years in the classroom. Put simply the best teacher in one setting might not always be the best fit for a different setting.

The impact of teacher turnover in higher needs schools has also been a source of concern. Research does show that turnover does adversely impact on the quality of instruction in higher needs schools. While agreeing with that finding Hanushek et al, found that to be the result of the loss of general and grade-specific experience and that is was the least effective teachers who were leaving.[105]

If this an approach that will be considered in policy on funding for equity, then there are some important aspects that will need to be addressed:

a. Training and qualifications
b. Appointment and retention incentives
c. Leadership appointment processes
d. How networks are created and sustained.

Training and Qualifications.

There is little doubt that leadership capabilities are vitally important. However, New Zealand is unusual in that there is no compulsion for candidates for a principal's position to have undertaken any training around those capabilities or indeed to have gained any formal qualification relating to school leadership and management.

The Education Council, following extensive consultation with the sector, has just released a Leadership Strategy for the Teaching Professions of Aotearoa New Zealand and the accompanying Educational Leadership Capability Framework. The Council sees the latter

[103] This suffers from the problem that if they are in fact able to attract more experienced [and therefore more expensive teachers] they would lose the funding advantage with which they attracted those teachers.
[104] Hattie, 2003. (6)
[105] Hanushek et al, 2016, 145. (7)

document as a vital tool for self-review, career development, and when appointing a principal or others to leadership positions within a school.

The Education Council does not have a remit to insist on any such training or qualification but that does not mean that the Government and Ministry could not move in such a direction. Suggestions from respondents as to how the capability framework could be incorporated into the principal appointment process include:

The Capability Framework becomes part of some compulsory training or qualification that a person has to have completed prior to appointment to a SLT position in a school.

That could be backed up by a probationary period or mentoring where those capabilities are modeled and practiced.

Board of Trustees [or one member] could be required to complete a workshop on the leadership capabilities before a BOT could lead an appointment process.

Alternatively, they could be required to include an "expert" on their selection panel who would have had the training and skills to check out all short-listed candidates against the framework before an appointment is made.

Appointment and retention incentives

The 2018 OECD study noted that New Zealand Principals in more disadvantaged schools reported that they had inadequate or poorly trained teachers.[106] Significantly, they also found that New Zealand was one country where the student/ teacher ratio was the same for advantaged and disadvantaged schools. Interviewees canvassed two themes: system incentives for teacher supply; teacher retention matters.

A survey of the literature and interviewee responses supported some non-salary enhancements. Most commonly referenced were smaller class sizes and/ or less contact time. That reduced class contact was to be used in preparation and in small group or one-on- one mentoring of students. While many saw this involving subject support, others felt that assisting students see a pathway past school was important. Universal shifts in non-contact time and class sizes increase the overall demand for teachers. In a tight teacher supply market, universal shifts may well have the adverse effect of reducing the supply and quality of teachers in schools with the highest needs.[107] Likewise, measures such as signing bonuses and removal expenses need to be targeted if they are to improve supply to high needs schools.

[106] OECD, 2018, 105
[107] Lankford, Loeb, and Wyckoff, J. 2002.

There was some support for the "professionalization" of the support staff role—not so those people could become replacements to teachers, but so that they could be more effective learning assistants and part of a team of adults in a classroom working with pupils.[108]

Respondents raised salary or other financial compensation as potentially part of any approach and quoted the current packages paid to those principals under the principal recruitment allowance. A number of principals, board members and staff thought that an additional payment would be a fair adjustment to make for those people working in the schools with high levels of disadvantage. As one principal in a decile 1 school put it:

> "Teachers need some compensation for some of the shit they have to put up with from the most challenging kids."

While the first part of that principal's plea relates to remuneration, the second part addresses a large part of the explanation of why principals and teachers may be reluctant to apply and why many leave. School disciplinary climate, anticipated behavioural problems and concerns over safety all figure in common discourse and the literature.[109]

The New Zealand pay structure is linked to years of experience and does not vary significantly across schools 110 or across teachers with similar qualifications, a situation that the OECD study found made it "difficult to avoid attracting a high concentration of the most experienced teachers in the most prestigious schools." [111]

While remuneration and working conditions are clearly seen as an important part of any package there was also a consistent message that many staff work in low decile schools because they have a real desire to make a positive difference. This is reflected in the fact that many highly employable teachers and principals continue to work in challenging schools when they could easily get a position in a higher socio-economic community. It also explains why some highly regarded principals and teachers move back to low decile communities. Their explanations were consistently related to making a difference and providing the career challenge they were looking for.

As positive as those moves are, any system wide approach to support for schools with high proportions of disadvantage can't rely on voluntary relocation. There is evidence that "career-based" systems which link the career structure to experience in high needs schools are more successful at compensating schools for student disadvantage, "perhaps because they temper seniority-based priority rules with mandatory requirements for teacher mobility and career incentives for teachers who work in high-need schools."[112] The large numbers of candidates for restricted Teach First New Zealand training positions, where the placements are in lower decile

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[108] There was regular reference to the low hourly rate for teacher aides working in schools being a barrier.
[109] Cornell and Mayer,2010. Parr and Bonitz,2015.
[110] There is a payment for those schools designated as "hard to staff".
[111] OECD Effective Teacher Policy. Page 24
[112] Ibid,

schools, is further evidence of a strong level of support for those schools serving the most disadvantaged communities.

Principals report that there is not more public comment about staffing concerns in low decile schools because of the knock-on effects that will have on public perceptions. Newspaper reports normally quote principals from high decile schools presumably because those principals recognise that if they are having difficulty recruiting other schools will be as well.

The conclusion here seems to be that policies that improve teacher conditions such as increasing non-contact time or lowered class sizes need to be targeted to schools serving the highest levels of disadvantage. Systems which link the career structure to experience in high needs schools are more successful at compensating schools for student disadvantage.

Getting appointments right

One of the most important tasks boards of trustees undertake is the appointment of a principal. Elected volunteer boards of trustees have employer responsibility.

Principals provide anecdotes where this process has failed. They refer to principal colleagues who have failed in one setting turning up in another school either because the appointment process was flawed or because boards had no alternative candidates. They suggest that in too many cases boards are simply not up to the task. A genuine interest in education and a desire to do the best for the school are fine qualities but on their own they are not enough to ensure a really robust appointment process is followed[113]. Contributing to the chance that a sub-optimal appointment will be made is a lack of any system-wide oversight of leadership development and performance.[114]

This inquiry report has already noted that in New Zealand, unusually by international standards, has no requirement—except teacher registration—as to the qualifications or experience leadership appointees must have. For most boards appointing a principal is a rare event yet there is no requirement that they must seek professional advice in the process. Many in fact do employ consultants to assist, though that tends to be limited to assisting with advertising and reference checking, leaving the board to make the final decision. Feedback from respondents

[113] This is most certainly not limited to school boards and principal appointments in low decile schools and occurs in schools across the decile range and in many organisations even when the position is extremely highly remunerated and high profile.

[114] Adding to the complication and confusion, the Ministry remind boards that the legislation allows them to define their own role and choose their own style of governance as there "*…are neither right solutions nor one model of governance that must be followed by all boards of trustees …"* If boards are not confused it would be surprising and it would be equally surprising if many boards were even aware of the flexibility afforded to them.

who commented on this aspect suggests that while principal appointment is stressful for boards it is not a role they will willingly give up.

It may be that the review of Tomorrow's Schools will recommend changes to the governance structure of schools that will address the appointment issue. If it does not, then other ways will need to be explored to address it.

How networks are created and sustained.

The 2014 Government's 'Investing in Educational Success' policy aim was to raise student achievement by promoting effective collaboration between schools and strengthening the alignment of education pathways.[115] By Feburary 2017 there were 214 Kāhui Ako established with 1761 schools signed up. Despite some upbeat official messages about how well they are operating, feedback for this inquiry suggests that they are still struggling to make a difference. To date no comprehensive evaluation has been published on the success of the Communities of Learning but anecdotal evidence locally and international research shows that embedding professional learning communities is far from straightforward or easy. Challenges include strong subject boundaries, professional divisions or mistrust, different school cultures, time pressures, teacher and leader turnover and the continued competition for students in some situations. Finally, engaging others in change requires will, skill but ultimately persistence as there will be periods where performance may be flat and where progress may be slow.[116]

Interview and survey respondents believed that the Communities of Learning model could be a good starting point to create collective capacity.

A number of interviewees, including the Education Council (now Teaching Council), saw value in working through the Kāhui Ako as they are already in place and funding is already allocated. However, the rigidity of the way in which the model was operationalised, including the insistence of leadership payments to a single person and the overly tight controls on what achievement challenges would be accepted, has slowed progress down. Perhaps of even more importance is that the Kāhui Ako model is overlaid on a system that is still inherently competitive. That can show up in a reluctance to share teacher expertise.[117] There is also little evidence of any meaningful interchange of ideas and planning at the board level.

Local network approaches have operated in the past—the AimHi initiative for the country's lowest-decile secondary schools being a good example. Despite the anecdotal conclusion that there has been a lack of obvious success for Kāhui Ako, resourcing schools as part of a

[115] There was also the additional intention to create an enhanced career pathway and build leadership.
[116] Harris, 2010.
[117] This can be especially problematic for small primary schools where the lead teacher can be a large proportion of the total staffing. It has also not been helped by a severe shortage of experienced relief teachers.

community of learning does have potential. Firstly, in most cases schools that have high levels of disadvantage are in communities where other schools share that issue. In some of these high need communities there will be a number of barriers to overcome including professional mistrust, lack of a culture of collaboration, multiple boards of trustees who have never worked together and on-going competition for students. Each successive link in the chain [intermediate and secondary] has an incentive to work with the community as those students will pass on to them.[118] Secondly, if some of the resourcing came via the Kāhui Ako rather than each individual school, the stigma that attaches at a school level is reduced. Finally, collaboration that involves a shared challenge and a significant level of shared resourcing does have the potential to reduce competition.[119]

However, promoting a model that resources schools as a network will face challenges. The network would need to develop systems to ensure that resources are used well and shared equitably. As part of that issue thought would need to be given to the redrawing of communities of learning and to ensuring that all schools in an area were part of the network. Currently there are schools that refuse to join Kāhui Ako even though all the other schools in that network/ pathway have joined.

Secondly, Boards of Trustees are not used to working together and many are already struggling to cope with the demands of the role. [120] The unrealistic size of the school governance role is not restricted to New Zealand and a 2008 school governance study in the U.K. reached three conclusions that can equally be applied to New Zealand. Governance is:

- over-complicated – the task of governing is highly complex
- overloaded – school governing bodies are responsible for too much
- overlooked – school governing does not receive sufficient attention and recognition.[121]

Adding another level of demand and requiring them to oversee the needs of the network rather than those of their individual school will be a stretch.

Finally, some boards and some working in schools are already suspicious that the Kāhui Ako model is a 'trojan horse' for combined boards and/or school amalgamation.

However, this inquiry signals some support for a local area network approach to resourcing, but more research is required to ascertain where that approach would be appropriate.

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[118] One of the main criticisms of the achievement challenge restrictions was that schools saw the need to focus on those things that ultimately stop students achieving including transience, poor attendance and engagement.
[119] A counter argument is that Kāhui Ako already get additional resourcing. However, a significant proportion of that goes into a small number of existing staff. An enhanced funding model is likely to add additional teachers and support staff as well other funding to support learning and other enhancements.
[120] A principal from a well-regarded school, in response to a question about the role of the board answered, *"Do they make one iota of difference to the school? No, they don't."*
[121] (Balarin, Brammer, James , & McCormack, 2008)

International Approaches.

Internationally, different approaches are taken. In Korea there is a mandatory rotation scheme requiring a change of school each five years and multiple incentives apply to attract teachers to take positions in high-needs schools including salary and non-contact time but also additional credit towards future promotion.

Singapore aims to attract highly performing students at secondary school into teacher training by paying a stipend during the training period, much as New Zealand did with studentships in the 1970's. While in Singapore that is designed to attract high ability candidates into teaching generally the Teach First programme that is currently operating does also look to attract people into teaching in lower decile schools by paying as they train.

Schools serving disadvantaged communities in Ireland provide targeted support for school leaders and teachers through such mechanisms as enhanced access to professional learning and development and additional staffing.

7.4 Provision of Information for parents.

The 2003 Parliamentary Committee recognised the mis-use of decile and recommended that the "Ministry of Education develop a full and effective communication programme to ensure that all stakeholders know how decile rankings are calculated, and what they mean." Interviewees recognised that the Ministry has made efforts in that regard. But given that in the years since the report was issued the trend of movement from lower decile to higher decile schools has continued, it's highly likely that it is not lack of information about the system that is the problem.

Principals had a wide range of responses to better information provision. Some were hopeful that it would make a difference, but no one was completely confident that it could successfully be achieved. Some of this doubt stemmed from the difficulty of providing the information.

> "Yes, I do think it's a good idea. The challenge is how to go about it."

Others thought that while the intention is admirable the outcome is likely to be disappointing or in some cases actually counterproductive. An illustration offered of the latter was the Education

Counts website being used to create an article about the schools that suspend the most children.[122]

Nevertheless, it still makes sense to see what can be done to improve understanding and remove or mitigate against stigma associated with decile. There are three questions that need to be considered in relation to this approach:

- What information do parents currently use?
- What official information would be most useful?
- Would parents use that information and change their behaviours?

Research has found that choice is often based on "reputation" and much of the information parents get is through informal networks.[123] As has been reported in the research, "knowing other similarly positional parents who had chosen the same school was important to the advantaged white parent."[124] That is, parents often place considerable weight on such network information even though it is in no way formal. Conversations with parents from different schools are seen as more helpful than information provided from central authorities. However reputational information is not always accurate and can be as Croft notes "misleading and myth."[125] Furthermore, reputation tends to persist over long periods despite actions taken by schools and changing facts[126,127]

Some parents reported using ERO reports when looking for a school and many visited schools they were considering. Overseas research indicates that better educated and more affluent parents are more likely to use performance indicators when choosing while less well-educated parents give more weight to location. No information was found in the literature search for this inquiry to confirm if that finding holds for New Zealand although principals of lower decile schools did report that they believed they lost many of the most upwardly social mobile families.[128]

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[122] As an ex-principal I can attest to just how concerning those types of articles can be. As one-off snap shots they can miss longer term trends and fail to take account of rare events. As most principals would say having noted that their school has not been singled out "there but through the grace of God go I."

[123] Willms and Echols, 1992.

[124] Roda and Wells, 2013, 282.

[125] Croft, 935

[126] Waslander et al, 37..

[127] Principals in low decile schools commented that if there were problems in shopping centres or public places their students would be blamed even if they were not involved. Others noted that while a bad ERO review might cost them students a good one seemed to make little difference

[128] Consistent with the work of Cucchiara and Horvat (2014), low decile schools do retain able students from families who could have opted for other schools. Those researchers report that this is a growing trend in many cities overseas but there was no evidence of that trend here.

What official information would be most useful?

This is complicated. If the aim is to reduce the segregation of schools and the social stigma attached to being a school that qualifies for additional resourcing, performance information as used in the USA and in England based on the results of standardised testing is unlikely to help.

Some jurisdictions have looked at using value-added information but that is also fraught with difficulties. Does a high value-added score apply to all students, or all age groups to all ability levels or all ethnicities? Are those rankings stable over time? In fact, it seems that when using value added rankings it "proves difficult to reliably separate 'good' or 'bad' schools from average schools." [129]

Suggestions received for this study have focused around qualitative type indicators including measures of teacher effectiveness, the extent to which students feel safe and supported, the quality of relationships within a school, and the success of a school in preparing students for the next stage in their lives.

Would parents use that information?

Given earlier descriptions of the information parents currently use to exercise choice, and the influence of ethnicity and socio-economic position, there must be doubts about how much parents will use additional information even if it is available.

Certainly, reducing search costs can encourage sharing of factual information. Making relevant and supportive information easily available and presented in a way that is accessible to the full range of parents might also help. Research in the USA concluded that parents in poorer neighbourhoods who knew that their school was underperforming left those schools in small numbers. That is, knowledge in those situations did not translate to action. It seems likely that the same occurs in some communities in New Zealand where the ability to make changes even when aware of a local school's failings is constrained by transport costs and by a lack of available options.

Does access to more and better information change choices? Research from the United States would suggest that additional information is most likely to impact on wealthier communities and parents, the ones who are already most likely to exercise choice.[130]

[129] Waslander, 39
[130] Yoon et al, 2018.

Furthermore, the information most easily available and relevant to parents is generated by the schools. Reviews of that information shows that schools tend to focus their information on the more symbolic or emotional aspects, drawing attention to facilities and more marketable themes rather than direct evidence of school performance. [131]

[131] Roda and Wells, 2011, 152.

Section 8 Portrayal of Equity Index.

How any index is presented and portrayed will be an important part of the acceptance of the system. Section 7 reflects on the feedback from respondents and examines those things that could be done to ensure implementation is both effective and efficient.

8.1 The language used.

When considering if people would still look to create some form of ranking even if a new resourcing system was put in place, one principal believed:

> "Yes, they would. They might well just keep using the old label. It might take 25 years to stop thinking about it. One way or another there will be a designation that identifies some schools as getting additional support."

Interviewees considered that if people saw schools with higher levels of disadvantage getting additional support through such things as extra teachers, or highly experienced principals, they may in fact see the situation more positively. In addition, if the new funding model were promoted as part of a system wide change where the focus was on networks of schools rather than individual school units, a sense of shared purpose would help. Several interviewees raised examples of successful attitudinal shifts. Te Kotahitanga was an example of a change model that groups of schools bought in to, blending school improvement approaches with those specifically targeted at Maori students. The Ontario 5,000 Schools approach is an example of system wide change that seems to have successfully engaged leaders, teachers, parents and communities.

The need to promote the equity story and ensure that the community as a whole understood the level of disadvantage and the impact of that on achievement was regularly bought up.

> "We must sell the equity story."

> "It has to be associated with really good information and PR so that people understand the real need in low socio-economic communities."

One respondent saw the need to avoid making higher decile communities feel that they were being left out of consideration:

> "Praise the high decile schools that have great results – the kids they get at intake are great and they end up doing well."

That sentiment was not commonly expressed but does make good sense in that principals and teachers in all schools want the best for the pupils they are responsible for and it is important not to alienate those schools that are seen as advantaged.

The tension between wanting to see pupils with high levels of disadvantage get additional support while also not wanting to see advantaged students get less is well illustrated in a recent newspaper article entitled "Richest get most uni scholarships." The principal of a high decile school explained that while low decile schools should get more scholarships he wouldn't want to see his students disadvantaged by a change in policy. "Our students enjoy success in scholarships and do extraordinarily well. I would hate to see then denied access to those resources." [132]

However, it seems useful to suggest that a starting position would be to move the language of disadvantage from the notion of an 'index' to that of a 'resourcing system'. The former inevitably creates the sense that there is a simple number or measure that represents disadvantage and advantage.

8.2 Anticipating opposition

The implementation phase should anticipate and plan for some resistance to change. Section 5 identifies some reasons for that resistance and the form it might take.

When asked if a replacement to decile were to be developed, would people look create an alternative metric the overwhelming verdict was that they would.

> "I don't think parents would, but Metro and the Herald would."

Sentiment relating to the use of decile by the media and by real estate came through strongly.

> "Media are desperate for a measure. If there is a vacuum they will invent something."
>
> "Yes. There is a new website being set up and there is nothing stopping them publishing league tables. Schools Directory. It is a money-making project aimed at higher income families. They say they will be provocative as part of their business plan and in their own words 'acknowledge that this may entrench inequalities'".

While there was strong support from all interviewees for a revised resourcing regime, as was noted in section 4, how robust might some of that support be?

[132] Johnston, K. *NZ Herald*, Oct 6, 2018.

> "The ones who are shouting now will shout no matter what changes you make. It needs to be made clear that it's about the kids with the greatest need and the point is not about maintaining current advantage."

Others noted the asymmetrical balance of influence amongst schools and principals and the schools least likely to get additional support under any changes are usually those with influence.

There were also some suggestions that schools that currently gain some benefit from having a high decile would also want to maintain that.

> "Lose their marketing edge. If they are a school with lots of out of zone students, they will find an alternative model. Will talk about ethnicity."

The frustration with the actions of higher decile schools in areas where there was real competitive pressure was evident in the responses of many principals of lower decile schools. They were the ones most likely to report that there was talk of working together and collaboration at meetings, but the reality was that when it came to attracting students little ever came of the talk. Certainly, there is ample evidence that schools are not neutral in the school choice process.133 It is reasonable to anticipate that many schools and parents will want to guard any relative advantage they currently have and local politicians can expect pressure from those groups which of course translates to the Ministry of Education and the Government.

8.3 The Ministry on the front foot.

Advice received in the research for this inquiry was that the Ministry needed to "take the sector with them", "be more on the front foot" and "be more brand and marketing aware." Unfortunately, this was not something that many respondents thought that the Ministry of Education as a whole were good at. In the interests of fairness some recognised even with the best of intentions, those out in schools are generally slow to look for information or engage with any consultation until they have seen how it impacts on them and their school.[134] This makes it more difficult for the Ministry to prepare the way prior to the announcement of any change.

That is why it will be important to get information out to professionals in schools, teacher and principal unions, professional associations, NZTA and the wider community before any announcements what the changes will be. There are two key areas where clear messaging is vital.

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[133] Lubienski et al, 2013

[134] While return rates to consultation for the Education Councils Leadership Strategy had a response rate of below 30% for some groups the recent Herald article that reported on a PPTA plan around the funding of out of zone students got a rapid and predictable response.

The first is why equity funding is needed. Why do some communities need additional support? What will the gains be to those communities and society as a whole if that investment is made? There are two potential problems. The first is that the use of the news media is fraught with risk as there can be no guarantees as to how they will report it. That could, in the worst case, further marginalize and stigmatize the communities the system is aiming to help. Secondly for parents it is important not to further incentivise the movement of students out of higher need communities. If a community is judged high enough need to qualify for the maximum assistance than that does send a message that perhaps the best strategy is to relocate.

Secondly, the equity index, or profile, needs to be explained to those working in schools but also those agencies that currently use decile to make funding and support decisions. Feedback from the sector about the explanation to date is positive. People spoken to have generally understood why it is needed and how it might work. But the impact of concentration does not seem to be well understood.[135] A strong impression gained in the field work for this inquiry is that there is not a good understanding of just how significant the barriers are for students in the most disadvantaged schools.

The normal way that system messaging is done is through Principals. There are good grounds for thinking that it would be better to ensure that there is buy in from teachers. On the basis of experience, teachers are often less resistant to sharing with other teachers, independent of the school they are in, than principals. This would be a more ground up rather than top down approach. The principal is the system pivot yet the sheer volume of correspondence and sometimes overwhelming teacher workloads mean that not all information flows out through schools as smoothly as might be anticipated. Furthermore, boards rely heavily on the principal for information and for direction. Experience with COLs shows that if principals don't like or are unsure of an initiative, information does not get to boards or when it does, boards take on the views of the principal.

8.4 The Ministry and models of use.

There is a strong sense across the sector that the Ministry operate a low trust model. There is a real risk with a funding change that the same model will operate. If the Ministry have prescribed targets or measures of what success looks like that will also direct schools to certain responses which given the individual contexts of schools, might not actually be best. The conundrum has

[135] The current system does in fact have a higher weighting to the lowest deciles but many people still think the distribution is more even than it actually is. That is, they think that mid-decile schools get about half of the decile funding that low decile schools get.

been that while the flexibility and space to innovate is talked about as part of school autonomy, professionals in the field report what they see as increasing levels of accountability.

How additional resources are used is a topic of general and genuine interest. This places responsibility on the Ministry to ensure that there is a range of well-researched approaches to addressing inequalities, that those working in schools have had an opportunity to engage with those approaches and to consider the best strategy for their context. Some overseas systems place tight boundaries on how additional funding must be used. That is an approach that would likely be strongly resisted here, and, in any case, overseas reports show that it does not have the desired impact.

Currently much of the advice is seen by recipients in schools as general and not easily transferred to their context. For this reason, the publishing of details about a school that has "turned itself around" can actually be harmful. "If they can do it, why can't you?" when the situation, in particular the context, is almost always much more nuanced than that. Furthermore, these initiatives are often promoted well before they have been shown to be sustainable and scalable.[136]

In the search for models for the use of resourcing, care needs to be taken to avoid simply implementing highly selective samples of 'best practice' from overseas based on the assumption that because one country is experiencing success, that will transfer successfully to New Zealand.

Given the importance of the responsibility that schools have there could be value setting up a reporting mechanism whereby schools do account for how the resourcing has been used. This need not be hugely difficult and the process of accounting for how the resource is used can sharpen focus. Should the staffing formula be included in an equity model schools should have to be able to show how that staffing has been applied to improving outcomes for students. Depending on the final model of governance and the resultant responsibilities of boards that comes out the Tomorrow's Schools review it may be that the strategic use of resourcing is a core board function. The U.K. experience is that external oversight, while useful, can't be solely relied on to ensure resourcing is being used in a way that leads to improved student outcomes.[137]

[136] Undoubtedly a combination of factors and good initiatives can lead, over time, to significant positive shifts in results and school climate but in my experience sudden improvements in NCEA results are generally accompanied by major changes in the standards students have been assessed by.
[137] National Audit Office, 2015.

8.5 Conclusion

In developing a better model of resourcing for disadvantage the Ministry will have a great deal of support from principals, teachers, boards and parents. The other professional groups and organisations also understand that change is needed and support that change.

While decile has been at the center of this inquiry, decile itself is not the problem. It has come to take on a meaning that is not correct and gets used in ways it was not designed for. It is in fact a convenient label that allows people to form a rapid, if inaccurate, picture of a school and the community it serves. Changing the label will not change much at all. As a principal of a low decile secondary school put it, "People are still going to know there are lots of brown kids at this school. There will still be a judgement. They want to support their local school but there is the "angst of white middle class."

That of course is not a reason to do nothing, but rather a reason to support schools serving high levels of disadvantage with sufficient resources to make the difference needed. Ultimately the longer-term success of the new funding model will not be judged simply by how well it reduces the stigma attached to decile but by how well it changes the life trajectories of students from disadvantaged backgrounds. That means that the way the level of need is calibrated, how the resource is delivered, and how it is reported are all critical.

Likewise, the way that success is judged, and the outcome targets set will be instrumental in determining how schools apply the extra resourcing. Setting those targets too tightly or too focused on easily measured outcomes, such as NCEA results, will stifle innovation and potentially lead to the type of unintended consequences that the Better Public Service targets did.

Finally, real and embedded change will take many years. Resourcing is a very necessary part of any improvement strategy, but it is not an instant solution for the achievement issues facing New Zealand.

In embarking on a change of this nature and magnitude there needs to be an understanding that schools cannot do it on their own. A common refrain is that we cannot let poverty be an excuse for failure. As a previous Minister of Education liked to say, "decile is not destiny" and teachers across the country by and large agreed with that. However, at the same time if we do not accept that socio-economic circumstances are in fact correlated with achievement [not causal] then it is too easy to pass the responsibility [and blame] onto schools. We should not assume that there is a whole lot of unused capacity in staffrooms across the country and that simply tapping into that imagined capacity is where the solution lies. Getting the resourcing right is an absolutely vital first step in whole system reform aimed at improving the post school trajectories of disadvantaged learners.

Many school reform efforts have little long-term effect, are difficult to sustain and are not easily scalable. Some commentators have attributed this to models of change that are too heavily reliant on schools to 'deliver outcomes' while ignoring deeper-lying systemic issues. Systems reform, of necessity, will require collective capacity and a commitment to change at all levels of the system. [138] There is a danger of reaching for the 'quick fixes' and looking for the one off the shelf solution, the 'easy fix' rather than the harder but more sustainable fix. [139] To avoid this requires leadership and a coherent joining of the parts at all levels of the system not just in schools, a theme in Cathy Wylie's Vital Connections because successful system level reform is heavily dependent upon the competence and capability of all of the different parts of the system to respond to the changes required and to connect together. [140]

Schools are only one part of what needs to be a multi-faceted effort across a range of social initiatives. The OECD put it well when they stated, "Education's powerful role does not mean that it can work alone. Reducing inequality also requires policies for housing, criminal justice, taxation and health care to work hand in hand with education to make a lasting difference."[141]

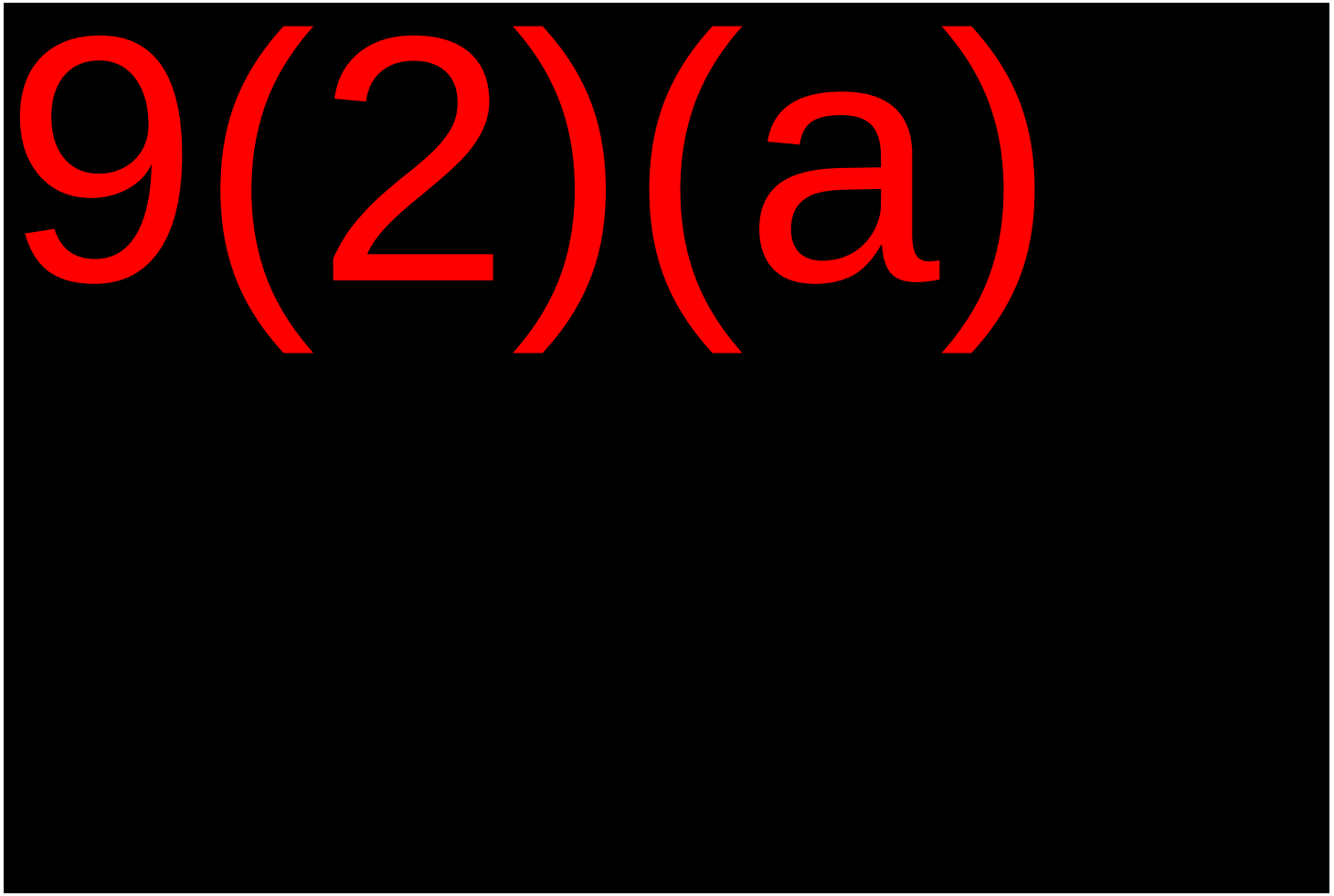
[138].Harris, 2010

[139] Mowat, 2018

[140] Harris, 2010, 204.

[141] (OECD 2016bOECD (Organisation for Economic Cooperation and Development). 2016b. *Trends Shaping Education Spotlight 8: Mind the Gap: Inequity in Education*. Paris: OECD Centre for Educational Research and Innovation.

APPENDIX A: Avondale College student residential distribution



School location and other secondary schools shown, March 2018 roll shown, 2818 student records, 2517 records shown (90%), Enrolment Scheme shown, 958 students within the home zone.

- Home address of student.

APPENDIX B: Misunderstanding decile, school size and funding

A common misconception across the school sector is the amount of additional funding schools of different deciles get.

There are three possible reasons for this:

When decile funding is discussed it is common for the highest level of funding at 1A [$926] to be used.142 Because that is also done without including the fact that a small proportion of students attend decile 1 schools it has the effect of making the decile "advantage" seem greater than it really is.

There is also a tendency to conflate decile funding and the rest of the funding schools receive without factoring in school size. This has the effect of making decile schools funding look even more advantaged.143

By misusing the decile funding it is possible to promote the view that low decile schools are in fact already heavily advantaged in terms of funding.

Table 8-1: Average cost per student across size and decile, full primary schools

Number of students	100-149	200-249	>350
Decile 1	$7,692	$6,604	$6,067
Decile 5	$6,150	$4,999	$5,279
Decile 10	$6,169	$5,445	$5,088

The difference between schools of the same size but different deciles is largely explained by decile funding. However, it is only fractionally less expensive to educate a student in a larger decile 1 full primary school than it is in a small decile 10 school.

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[142] Principals of higher decile schools have done the calculation of how much additional funding they would get if they were decile 1 [A] school and use that calculation in newsletters asking parents to pay the school donation. What they don't add is that Decile 1 A students make up less than 3% of the total school population. At secondary, Decile 1 students make up less than 5% of the total secondary cohort with decile 1A making up less than 2%.

[143] Because lower decile schools are also on average smaller by combining decile funding, operational grant funding and staffing lower decile schools do look to enjoy a much better grant per student. This can be further exaggerated by comparing two schools [one small and decile 1 and one large and decile 10. It is ormally done to demonstrate how hard done by a high decile school is or how unfairly advantaged a low decile school is.

A similar pattern is observed at secondary school.

Table 8-2: Average per-student resourcing for secondary schools (7-13 and 9-13) by size and decile

School size	Decile					
	1-2	3-4	5-6	7-8	9-10	Grand Total
300-599	$10,547	$9,571	$9,133	$8,626	$8,541	$9,385
600-899	$8,494	$8,311	$7,909	$7,246	$7,166	$7,827
900-1199	$8,027	$7,303	$7,070	$7,034	$6,509	$7,126
1200-1499	$7,400	$7,463	$7,469	$6,465	$6,367	$6,919
1500-1800		$8,104	$6,359	$6,644	$6,306	$6,590
>1800	$8,035	$6,418	$6,529	$6,218	$5,939	$6,247
Grand Total	$9,576	$8,630	$7,913	$7,238	$6,998	$7,939

Yellow: average slightly higher due to presence of schools with levels 1 or 2 Māori immersion

Small secondary schools of 300 -599 (and there are some which are smaller than that) are expensive on a per student basis irrespective of decile. A large decile 1 to 2 school (1200 -1499) has a per student average of $7,400 which $1,141 (or 13%) less than a decile 9 to 10 school of 300-599. Put another way the additional costs associated with size are greater than the highest level of decile funding.

Where a really misleading use of statistics can occur is where a large decile 9 to 10 school of greater than 1800 students compares its $5,939 per student funding with a small (300-599) decile 1 to 2 schools funding of $10,547. The $4,608 difference (or 77%) is large but on the average 1 to 2 decile funding of $685 the decile payment only accounts for around 15% of the difference.

APPENDIX C: Interview structure

Currently the Ministry of Education use a school's decile to help decide how much additional funding a school gets.

What are your views on that?

Most commentators believe that "decile" has had some unintended consequences.

Do you think that is true?

What are those?

What impact do you think being counted as low decile has on:

a school,

its teachers

the students who go to that school?

The school funding models are up for review. Decile and the possibility of an alternative to that is also on the agenda.

Does the decile system need reviewing?

What things do you believe the Ministry of Education could do to remove or reduce the negative label or stigma that is attached to being low decile?

One idea has been to give more or different information for parents to base their decisions on. Is this a good idea? Is it likely to work?

Do you think that more or different information would change people attitudes about schools/ or change their choices of schools?

If a new system did not result in a single measure such as decile, would people look for some other metric? If they did what might they use instead?

The current direction is moving to use available data bases that include a much greater range of family and socio-economic data to create indices of disadvantage that can far more accurately predict achievement at school. That would mean that funding for disadvantage could be much more accurately be allocated.

10.What are your thoughts on that? Advantages, risks, concerns?

11.Should data on the level of support each school gets be made publicly available?

12. Any other thoughts?

13. Anyone else I should be talking to?

Bibliography

Accounts, C. o. (2015). Funding for Disadvanatged Pupils. House of Commons. . London: House of Commons.

Allen, R., Burgess, S., & Mayo, J. (2018). The Teacher Labour Market, Teacher Turnover and Disadvantaged Schools. Education Economcs, 26(1), 4 - 23.

Bagley, C. (2006). School Choice and Competition: A public market in education revisited. Oxford Review of Education, 32 (3), 347 - 362.

Baker, B. (2016). Does Money Matter in Education? Washington: Albert Shanker Institute.

BenDavid-Hadar, I., & Ziderman, A. (2011). A New Model for Equitable and Efficient Resource Allocation in Schools. Education Economics, 10, 341 - 362.

Blaise, J. (2017). Getting the Most Out Of Gonski 2.01. The Economic Basis for School Investment. Sydney: Sydney Centre for Independent Studies.

Bonhomme, S., Jolivet, G., & Leuven, E. (2015). School Characteristicsand Teacher turnover: Assessing the role of preferences and opportunities. The Economoc Journal, 126, 1342 -1371.

Boyb, D., Lankford, H., Loeb, H., & Wyckoff, J. (2005). Explaining the Short Careers of High-Performing Teachers in Schools with Low-Performing Students. American Economic Review, 95(2), 166 - 171.

Browne, J., Cribb, J., Johnson, P., Joyce, R., Phillips, D., & O'Dea, C. (2013). Response of IFS Researchers to Measuring Child Poverty: A consultation on better measures of child poverty. . London: Institute of Fiscal Studies. .

Bursztyn, L., & Jensen, R. (2015). How Does Peer Pressure Affect Educational Investments? Quarterly Journal of Economics, 130(3), 1329 - 1367.

Butler, R. (2015). Schools, 'Fefals',Stigma and Boundary Work: Parents managing education and uncertainty in regional Australia. Ethnography and Education, 10(3), 340 - 355.

Calnitsky, D. (2016, May 31). Basic Income: Social Assistance Without Stigma. Toronto Star, pp. 1 - 4.

Candelaria, C., & Shores, K. (2011). The Sensitivity of Causal Estimates From Court-Ordered Finance Reforms on Spending and Graduation Rates. . Centre for Education Policy Analysis.

Cloutier-Bordeleau, M. (2015). Considering Poverty. Reconstructing the Discourse of Socio-Economic Status in Our Schools. Our Schools. Our Selves, 24(2), 97 - 104.

Cornell, D., & Mayer, M. (2010). Why Do School Order and Safety Matter? Educational Researcher, 39(1), 7 - 15.

Feniger, Y., & Lefstein, A. (2014). How Not To Reason With PISA Data: An ironic investigation. Journal of Education Policy, 29(6), 845 - 855.

Gagnon, D., & Mattingly, M. (2015). Rates of Begining Teachers: Examining One Indicator of Schools Quality in an Equity Context. Journal of Educational Reserch, 108(3), 226 - 235.

Gannicot, K. (2017). Needs-Based Funding is Not the Answer for Schools. Quadrant, 61(5), 68 - 71.

Gibbons, S., Machin, S., & Silva, O. (2006/07). The Educational Impact of Parental Choice and School Competition. CentrePiece, Winter, 6 - 9.

Glaze, A. (2013). How Ontario Spread Successful Practices Across 5,000 Schools. Phi Delta Kappan, 95(3), 44 - 50.

Gordon, L. (2015). 'Rich" and 'Poor' Schools Revisited. New Zealand Journal of Educational Studies., 50, 7 - 21.

Grisson, J., & Viano, S. (2015). Understanding Employee Turnover in the Public Service: Insights from research on teacher mobility. Public Administration Review, 76(2), 241 - 251.

Hanushek, E. (2003). The Failure of Input-Based Schooling Policies. The Economic Journal, 113(485), 64 - 98.

Hanushek, E., Kain, J., & Rivkin, S. (2004). Why Public Schools Lose Teachers. Journal of Human Resources, 39(2), 623 - 654.

Hanushek, E., Rivkin, S., & Schiman, J. (2016). Dynamic Effects of Teacher Turnover on the Quality of Instruction. Economics of Education Review., 65, 132 - 148.

Harris, A. (2010). Leading School Transformation. School Leadership and Management, 30(3), 197 - 207.

Hattie, J. (2003). Teachers Make a Difference: What is the Research Evidence? Australian Council for Educational Research: Annual Conference on Building Teacher Quality., (pp. 1 - 17).

Howe, K. (2015). The Meritocratic Conception of Educational Equality: Ideal Theory Run Amok. Educational Theory, 56(2), 183 - 201.

Jackson, C., Johnson, R., & Persico, C. (2016). The Effects of School Spending on Educational and Economic Outcomes: Evidence from school finance reforms. Quarterly Journal of Economics, 131(1), 157 - 218.

Jacobsen, R., Snyder, J., & Saultz, A. (2014). Informing or Shaping Public Opinion? Influence of School Accountabilty Data Format on Public Perception of Schools Quality. American Journal of Education, 121(1), 1 - 27.

Kitchener, D. (2016). How Much Longer Can We Afford the Free School Debacle. Journal for Critical Education Policy., 14(1), 74 -85.

Lafortune, J., Rothstein, J., & Schanzenbach, D. (2016). School Finance Reform and the Distribution of Student Achievement. Cambridge: National Bureau of Economic Research.

Lauder, H., Hughes, D., & Watson, S. (1999). The Introduction of ducational Markets in New Zealand: Questions and Consequences. 86 - 98.

Loeb, S., Valent, J., & Kasman, M. (2011). Increasing Choice in the Market for Schools: Recent reforms and their effect on student achievment. national Tax Journal, 64(1), 141 - 164.

Lubienski, C., & Dougherty, J. (2009). Mapping Educational Opportunity: Spatial analysis and schools choice. American Journal of Education, 115, 485 - 501.

Macleod, S., Sharp, C., & Bernardinelli, D. (2015). Suppporting the Attainment of Disadvantahed Pupils: Articulating success and good practice. National Foundation for Educational Research. London: Department of Education.

Martin, R. (2000). Towards a Schools Funding Policy to Ameriliorate Povery and Disadvantage. Australian Educational Researcher, 27(3), 173 - 238.

McWillams, J. (2017). The Neighborhood School Stigma: School choice, stratification and Shame. Policy Futures in Education, 15(2), 221 - 238.

Morris, T., Dorling, D., & Davey Smith, G. (2016). How Well Can WE Predict Educational Outcomes? Examining the roles of cognitive ability and social position in eduactional attainment. Journal of the Academy of Social Sciences, 11(2), 154 - 168.

Mowat, J. (2018). Closing the Attainment Gap - A realsitic proposition or an elusive pipe dream. Journal of Education Policy, 33(2), 299 - 321.

Nash, R., & Harker, R. (2005). The Predictable failure of School Marketisation. In J. Codd, & K. Sullivan, Educational Policy Direction in Aotearoa New Zealand. Palmerston North: Dunmore Press.

Nash, R., & Harker, R. (2005). The Predictable Failure of School Marketisation. In J. Codd, & K. Sullivan, Education Policy Direction in Aoteoroa New Zealand. Palmerston North: Dunmore Press.

NZPPTA. (2013). Beyond the Decile System. Wellington: NZPPTA.

NZPPTA. (2013). Beyond the Deciler System. Wellington: NZPPTA.

OECD. (2008). 10 Steps to Equity. OECD.

OECD. (2016). PISA 2015 Results (Volume 1): Excellence and Equity in Education. Paris: OECD Publishing.

OECD. (2018). Effective Teacher Policies: Insights from PIZA. Paris: OECD Publishing.

Owings, W., Kaplan, L., & Volman, M. (2015). Educatiuon in the U.S. and the Netherlands: An Equity Comparison and a Few Big Questions. Journal of Educational Finance, 41(2), 145 - 163.

Parr, A., & Bonitz, V. (2015). Role of Familiy Background on Student Behaviours and School RElated Beliefs in Predicting High School Drop Out. Educational Researcher., 108(6), 504 - 514.

Psacharopoulos, G. (2006). The Value of Investment in Education: Theory Evidence and Policy. Journal of Educational Finance, 32(2), 113 - 136.

Ramsay, P. (1981). Tomorrow may be too late. Report on schools with special needs in Mangere and Otara. Wellington: Department of Education.

Rehm, M., & Filippova, O. (2008). The Impact of Geograhpically Defined School Zones on House Prices. International Journal of Housing Markets and Analysis, 1(4), 313 - 337.

Ridge, T. (2011). The Everyday Costs of Poverty in Childhood: A review of qualitative research exploring the lives and experiences of low income children. Children and Society, 21(1), 73 - 84.

Roda, A., & Wells, A. (2013). School Choice Policy and Racial Segregation: Where white parents good intentions, anxiety and privilege collide. American Journal of Education, 119(2).

Salvatore, S. (2017). Shaping Income Segregation in Schools: The role of schools attendance zone geography. American Educational Research Journal, 54(6), 1345 - 1377.

Sandooval- Hernandez, A., & Bialowolski, P. (2016). Factors and Conditions Promoting Academic Resilience: A TIMSS based analysis of five Asian ecucation systems. Asia Pasific Review, 17, 511 -520.

Scafidi, B., Sjoquist, D., & Stinebrickner, J. (2007). Race Poverty and Teacher Mobility. Econonomics of Education Review, 26(2), 145 - 159.

Schleicher, A. (2014). Equity, Excellence and Inclusiveness in Education: Policy Lessons From Around the World. OECD. Centre for Educational Research and Innovation.

Simon, N., & Moore-Johnson, S. (2015). Teacher Turnover in High-Poverty Schools: What do we know and can do. Teachers College Record, 117(3), 1 - 36.

Taylor, C. (2009). Choice, Competition and Segregation in a United Kingdom Urban Education Market. American Journal of Education, 115(4), 549 - 568.

Tedin, K., & Weiher, G. (2004, Nov). Racial/Ethnic Diversity of Academic Qualityas Componnents of School Choice. Journal of Politics, 66(4), 1109 - 1133.

Thrupp, M. (2007). School Admissions and the Segregation of School Intakes in New Zealand Cities. Urban Studies, 44(7), 1393 - 1404.

Vester, B. (2016). Southern Transformation. Searching for educational success in South Auckland. Wellington.: Victoria University Press.

Waslander, S., Pater, C., & Van der Weide, M. (2010). Markets In Education: An analytical review of empirical research on market mechanisms in education. Paris: OECD Publishing.

Wylie, C. (2012). Vital Connections: Why we need more than self-managing school. . Wellington: NZCER Press.

Yoon, E., Lubienski, C., & Lee, J. (2018). The Geography of School Choice in a City With Growing Inequality: The case of Vancouver. 33(2), 279 -298.

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