

## **“I wanted to go here”: Adolescents’ perspectives on school choice**

Sandra Mandic<sup>1</sup>, Susan Sandretto<sup>2</sup>, Debbie Hopkins<sup>3</sup>, Gordon Wilson<sup>4</sup>, Antoni Moore<sup>5</sup>, Enrique García Bengoechea<sup>6</sup>.

<sup>1</sup>School of Physical Education, Sport and Exercise Sciences, University of Otago,  
Dunedin, New Zealand

<sup>2</sup>College of Education, University of Otago, Dunedin, New Zealand

<sup>3</sup>Transport Studies Unit, School of Geography and the Environment, University of  
Oxford, Oxford, United Kingdom

<sup>4</sup>Dunedin Secondary Schools’ Partnership, Dunedin, New Zealand

<sup>5</sup>School of Surveying, University of Otago, Dunedin, New Zealand

<sup>6</sup>Institute of Sport, Exercise and Active Living, Victoria University, Melbourne,  
Australia

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## **Abstract**

New Zealand legislation removing school zones radically reshaped school choice, resulting in increased school stratification from parental choice frequently driven by social factors such as ethnic makeup of the school community. This paper considers school choice through the eyes of 1,465 adolescents from 12 secondary schools in Dunedin (New Zealand). The most common reasons for school choice included: preference for a co-educational school, school's facilities, positive comments from parents/students and friends' enrolment. Reasons for school choice differed by who is making the decision. Social factors and school programmes/facilities rather than proximity to home influence school choice decisions in Dunedin.

**Keywords:** Secondary schools; school choice; New Zealand; adolescents

## **Introduction: School choice policy landscape in New Zealand**

School choice in New Zealand is a complex and contested field, with multiple factors impacting how and why parents and/or students select a secondary school. The foundations of the current landscape were prepared in 1988 with 'bold' reforms proposed and then enshrined into legislation by 1989 (Fiske & Ladd, 2000). A primary motive of the reforms was "to give parents maximum choice" (Department of Education, 1988, p. 36). School zoning and enrolment schemes provided key levers to deliver greater choice and "to ensure that students can attend a state school reasonably convenient to their home" (Department of Education, 1988, pp. 35-36), where convenience largely referred to the proximity of the school to the student's home.

Since the 1989 Education Act, several changes to zoning policies have been introduced, variously enhancing and constricting school choice (Pearce & Gordon, 2005; Thomson, 2010). Currently, some secondary schools have home zones and enrolment schemes if they are at risk of over enrolment (Thomson, 2010). Students who live within the home zone of a particular school have the right to attend that school. Home zones, however, do not preclude students attending a different school. Students who wish to attend a school outside of their home zone are prioritised according to criteria such as special programmes, or familial relationships with other students or employees of the school. These policies ensure that New Zealand students and parents, in theory, have a great deal of choice when it comes to secondary schools.

In this paper, we consider school choice through the eyes of adolescents using survey data to examine who decides and what factors influence the selection of a secondary school. This responds to the critical need for greater attention to be paid to the role students play in school choice decision making, providing important insights for education policy development.

### **School choice effects**

Research on parental choice and its effects in New Zealand since the implementation of the reforms has acknowledged concerning and ongoing trends. Ladd and Fiske (2001) identified “clear and unambiguous” (p. 60) results 10 years after the initial changes; in particular, increased stratification between low-decile and high decile schools<sup>1</sup>. This stratification takes the form of growing rolls at high decile schools, often with a greater proportion of Pākehā (New Zealand European) students and declining rolls at low decile schools which frequently have a greater proportion of Māori and Pasifika students (Ladd & Fiske, 2001). These trends still continue, as recent analysis of Ministry of Education data demonstrates (Singh, 2015). Authors such as Lauder et al. (1999), Fiske and Ladd (2000), Wylie (2009), and more recently Gordon (2015), argue ethnicity and social class play a role in who can access choice. Thrupp (2007) describes the convergence of ethnicity and class in New Zealand as an “inconvenient truth”, where a largely Pākehā middleclass has been able to maintain, or increase their children’s enrolment in higher decile schools.

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<sup>1</sup> The decile rating of a school is a “measure of the socio-economic position of a school’s student community relative to other schools throughout the country” (Ministry of Education, 2016, ¶ 4).

Not all families have access to the choices they desire (Wylie & Bonne, 2016). Factors such as location, transportation costs and the presence of an enrolment scheme are likely to prevent students from attending the school parents identify as their first choice. According to the New Zealand Council for Educational Research Secondary Survey (Wylie & Bonne, 2016) with 1242 parents from a range of schools, the higher the decile, the more likely a student is attending a 'first choice' school (91% in decile 7-10 schools as compared with 77% in decile 1-2 schools). Māori parents were less likely (84%) than Pākehā parents (95%) to enrol their child in their first choice school. The first choice school was also the closest school for 60% of the parental respondents. Only 3% of parents selected a school based on characteristics such as religion and 2% because of co-educational or single-sex schooling.

Several researchers propose parents use decile as a "proxy" for school quality, presuming that the higher the decile, the higher the quality of the school (Gordon, 2015; Ladd & Fiske, 2001; Thomson, 2010). It appears that school choice in New Zealand is driven by social factors such as the perceived characteristics of the school population, with parents choosing a school with a higher decile than their local school, or choosing 'up', whenever possible (Gordon, 2015). However, parents are not the only players in the school choice game.

### **Adolescent choice**

In keeping with New Zealand education policy's emphasis on parental choice, studies frequently examine school choice decision-making from the parents' point of view (e.g. Wylie, 2013; Wylie & Bonne, 2016). Though when given the opportunity, some

students have indicated they would like to be involved in choosing their school (Taylor, Smith, & Nairn, 2001). Other studies allude to parents and students making decisions together. Wylie and Bonne (2016), for instance, note 54% of parental school choice was influenced by whether or not the child wanted to attend the school. But little is known about the role adolescents play in school choice decision-making.

In New Zealand, few studies directly explore the school choice decision-making process with adolescents. A notable exclusion is the *Competent Children, Competent Learners* longitudinal study, which followed approximately 500 people from age 5 to 20 in the Wellington region (Wylie & Hipkins, 2006). This study provided some important insight into school choice decision-making, particularly at ages 12 and 14. For instance, when asked at the age of 12, students reported most school choice decisions were made by parents and students together (60%), followed by parents only (22%), student only (15%) and unsure (2%) (Wylie & Hipkins, 2006). In contrast, at the age of 14, students reported that decision-making was more equally distributed between joint parent and student decisions (32%), parent only decisions (30%) and student only decisions (34%) with 2% reporting no choice available (Wylie & Hipkins, 2006).

In the United States, Condliffe et al. (2015) found that 66% of their sample in Baltimore, Maryland made the decision alone, while 14% made the decision with their parents, and 10.5% of the decisions were made by the parents alone with a further 9.3% of the decisions being made by other adults (e.g. teachers). Although Wylie and Hipkins (2006) found some differences in the students' reporting of who was involved

in secondary school decision-making, a picture emerges portraying the involvement of a large proportion of adolescents in the decision-making process in New Zealand, and in even greater proportions in studies such as Condliffe (Condliffe et al., 2015).

The New Zealand adolescents in Wylie and Hipkins' (2006) study cited a range of reasons for their choice including family tradition (26%), good reputation (23%), closest school (21%) and friends enrolment (21%) followed by less frequently reported reasons such as subject choice (5%), school size (2%), single-sex school (1%) and the only accessible school (1%). Adolescents from families with an income of \$60,000 or more were more likely to mention *reputation* as a reason for school choice (28% compared with 15%). Similarly, reputation was more important to adolescents attending a decile 9-10 school (33% compared with 10% going to a decile 1-2 school) (Wylie et al., 2004). The authors argue that the "connection in... [students'] minds between high socioeconomic social mixes and quality" (Wylie & Hipkins, 2006, p. 129) may explain why students from high income homes and students attending high decile schools were more likely to cite reputation as a reason for school choice. In addition, students' reasons for school choice were frequently reflected in their school selection: "Children going on to private schools were more likely to mention reputation; those going on to state schools, proximity, and those going on to state integrated or private schools, religion" (Wylie et al., 2004, p. 281). Finally, low-income students had shorter commute times to school than children of very high-income families, indicating that transportation and associated costs may be a factor (Wylie & Hipkins, 2006).

In a smaller-scale New Zealand study, Munro (2014) used a nationwide online survey with 63 pairs of students, either year 7 (~age 11) or year 9 (~age 13), and parents. According to the student surveys, 14.3% of students made the choice independently, and 58.7% of the students made the choice with a parent. Students prioritised their happiness, a safe school environment, an absence of bullying, and a wide range of subjects on offer to inform their choice of school. Interestingly, 85.7% of the students surveyed did not want more of a say in the school choice process.

Internationally, several studies have used individual and focus group interviews with smaller numbers of students in order to gain greater clarity on the reasons behind student choice. Reay and Lucey (2000), for example, conducted focus group interviews with 44 students and individual interviews with 20 students regarding their involvement in school choice in inner London (UK), while Sattin-Bajaj (2014) interviewed 15 students in New York City (US), Condliffe, Boyd and De Luca (2015) interviewed 118 Baltimore (US) students and Phillippo and Griffin (2016) interviewed 36 students three times over approximately 27 months. Nonetheless, the literature exploring why students choose a high school illustrates some common themes. Researchers regularly identified that students selected schools due to their location, with frequent references to concerns about safety and travel distance (Sattin-Bajaj, 2014). Students also described how their perceptions of the quality of the school, sometimes driven by data about the academic achievement (e.g. Sattin-Bajaj, 2014), and other times driven by conceptions of a 'good' school (Sattin-Bajaj, 2014) or 'good' education (Reay & Lucey, 2000), shaped their choice of school. In addition, students named family legacy, or connections through other family members such as siblings attending the school, as factors influencing their choice (Condliffe et al., 2015; Sattin-



Bajaj, 2014). Finally, some students identified areas such as school programmes (e.g. sports, extra-curricular activities) as important factors influencing their school choice (Condliffe et al., 2015; Sattin-Bajaj, 2014).

While there are common themes, there are no prevailing factors underpinning student choice, with influences such as gender, ethnicity and socioeconomic status complicating students' access to information and perceptions of the available schools to select from (Reay, 2004; Reay & Lucey, 2000). Reay and Ball (1998), for instance, examined the family dynamics of school choice-making in London (UK) and found patterns in terms of social class. Working class families largely positioned the child as the educational expert and allowed them to make the decision, whereas middle class families had a "veneer of democratic decision-making" (p. 443) with the parents 'guiding' children to the correct choice. Similarly, Rosenboom (2010) argues that the weight of sole decision-making is more likely to fall on the shoulders of "immigrant students, children of immigrant parents and children of less educated parents" (p. 18) and highlights the importance of well-informed adults to support students through the decision-making process. Students in that study reported feeling 'trapped' at the neighbourhood school when they were rejected from their preferred schools, emphasising that some students may only obtain a limited choice.

Our study contributes to the New Zealand and international literature by focusing on a large sample of students with 100% school participation rate in one urban centre. School choice, and associated school zoning and enrolment policies have broad implications for public health, transportation, and sustainability, as well as education

(Mandic et al., in press). When parents/students can choose schools beyond their closest school, the flow-on effects can impact traffic congestion, air pollution, school transportation budgets, and children's health and obesity (Mandic et al., in press; U.S. Environmental Protection Agency, 2003).

In this paper, we consider school choice through the eyes of adolescents using their survey data to examine who decides and which factors influence the selection of a secondary school. We hypothesized that school's facilities and social factors (existing social connections and feedback from other students and parents) rather than proximity to home would be the main drivers of school choice. In addition, we hypothesized that parental decisions for school choice (as reported by adolescents) would be more driven by logistic-related factors (such as proximity to home and sibling's enrolment) and comments from other parents compared to student-only and joint student-and-parent decisions. Next, we discuss the study design, followed by a presentation and discussion of the results. We conclude with the implications for educational policy development, study strengths and limitations and future research directions.

## **Methods**

**Setting.** This study was conducted in the city of Dunedin (population: 130,000) on the South Island of New Zealand as a part of the Built Environment and Active Transport to School: BEATS Study (Mandic et al., 2015; Mandic et al., 2016). The city of Dunedin has 12 public secondary schools (five co-educational schools, three single sex boys' schools and four single sex girls' schools) and no private schools. Eight secondary schools are non-integrated whereas four schools are integrated (i.e., special character

school). Six schools had an enrolment scheme in place due to the potential for over enrolment (two non-integrated schools: one co-educational and one single sex girls school; four integrated schools: one co-educational, two single sex girls and one single sex boys school). All twelve secondary schools participated in BEATS Study in 2014-2015 (100% school recruitment rate) (Mandic et al., 2015; Mandic et al., 2016). Details on school recruitment have been described elsewhere (Mandic et al., 2015).

**Participants.** A total of 1,780 adolescents (13 to 18 years of age; 45% boys; 10% boarding at school or privately; 42% survey response rate) from all twelve secondary schools in Dunedin participated in the BEATS Study (Mandic et al., 2015; Mandic et al., 2016). Participants with invalid surveys (n=38), incomplete student consents (n=20), lacking parental consent (n=59), missing distance to school data (n=27), boarders at school (n=153) and boarding privately (n=18) were excluded from the analysis. Therefore, data from 1,465 adolescents (age:  $15.1 \pm 1.4$  years; 44.7% boys) were used in this analysis.

## **Procedures**

Details on adolescent recruitment have been described elsewhere (Mandic et al., 2016). All adolescents signed consent for taking part in the study. For those under 16 years of age, parents signed either parental opt-out or parental opt-in consent based on the school's preference. The study was approved by the University of Otago Ethics Committee.

Adolescents completed an online survey during class time under supervision of research staff, as described previously (Mandic et al., 2016). The survey included

questions about socio-demographic characteristics (age, gender, ethnicity, school, home address, number of siblings) and school choice (see **Table 1**).

#### TABLE ONE ABOUT HERE

##### **Sociodemographic characteristics, family factors and distance to school.**

Age was calculated from date of birth at the time of the survey. Home address data were used to determine New Zealand Index of Deprivation (a neighbourhood area deprivation score) as a surrogate for students' socioeconomic status (Salmond, Crampton, & Atkinson, 2007). The deprivation index was recoded from the original 10-point scale (1=least deprived to 10=most deprived) into five categories: lowest (1-2), middle-low (3-4), middle (5-6), middle-high (7-8) and highest (9-10) deprivation score. Adolescents reported the number of siblings enrolled in the same school and the number of vehicles at home. Distance from home to school was determined using Geographic Information Systems network analysis, as described previously (Mandic et al., 2016).

**School-related factors.** School-related variables included co-educational status (co-educational schools; boys only or girls only schools), school's character (integrated (i.e., special character school) versus non-integrated (regular) school), school size and school decile (1=most deprived to 10=least deprived). School decile is an indicator of the socioeconomic status of the school (Ministry of Education, 2016). School decile is based on the proportion of students at the school with low socioeconomic status as defined by the student's residential address. Decile 1 includes the 10% of schools with the highest proportion of students from low

socioeconomic communities whereas decile 10 includes 10% of schools with the lowest proportion of students from low socioeconomic communities.

**School choice.** Sixteen of the survey questions focused on school choice (see Table 1). Adolescents were asked if they initially enrolled in the closest school, who chose the school and how much they agreed or disagreed with 14 items related to school choice preceded by the stem “The reasons why I have chosen this secondary school/this secondary school was chosen for me is because...”. Adolescents recorded their responses on a 5-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. An additional response option (“I don’t know”) was provided. Adolescents were also given an opportunity to specify other reasons. Categorical variables were created by recoding original responses as follows: “strongly disagree” and “disagree” were recoded into "disagree"; “neither agree nor disagree” was coded as "neutral"; “strongly agree” and “agree” were recoded as "agree". “I don’t know” responses were reported separately where appropriate. School choice questions for this study were designed by the BEATS Study research team based on input from Dunedin secondary schools and school principals. All schools had the opportunity to provide feedback on the school choice questions.

## **Data Analysis**

Demographic data and reasons for school choice were initially analysed using descriptive statistics. Data are reported as mean $\pm$ SD for continuous variables (“I don’t know” responses were excluded from these analyses) and frequency (percentage) for categorical variables. The statement about siblings attending the same school was analysed only in students who reported having at least one sibling. The statement

about preference of a single-sex school was analysed only in students attending a single-sex school. Similarly, the statement about preference of a co-educational school was analysed only in students attending a co-educational school. Continuous variables were compared between the groups using parametric tests (t-test and ANOVA) when assumptions for parametric tests were met, and non-parametric tests (Mann Whitney-U test and Kruskal-Wallis 1-way ANOVA) when assumptions were not met. P-value <0.05 was considered statistically significant. Subsequently, multinomial logistic regression was used to examine if reasons for school choice differed according to whether such decisions were made by students only, parents/guardians only, or students and parents together. For this purpose, a generalized linear mixed models procedure was used to account for the survey sampling design (i.e., students grouped within schools). Specifically, the variable indicating who made school choice decisions was regressed simultaneously on the reasons for school choice. To account for potential confounders, the model included the following covariates: students' age, gender, socioeconomic status and ethnicity, whether students were enrolled in the closest school initially, and actual distance from home to school assessed by means of Geographic Information Systems network analysis (classified into five percentile groups for ease of interpretation). The model was also adjusted by the following school-related variables: co-educational status of the school, character, size and decile. "Parent/guardian only" decisions was selected as the reference category in the multinomial logistic regression analysis and a variance components covariate structure was assumed.

The potential for multicollinearity was evaluated with correlations among all independent variables. Given the strong correlation between 'negative comments from parents' and 'negative comments from students' as reasons for school choice ( $r=.88$ ),

we fitted an alternative model excluding both variables. Removal of these variables did not result in any noteworthy differences with the full multivariate model in terms of both parameter estimates and significance levels and therefore results from the full multivariate model are summarized below and detailed in Table 4. Data analysis was performed using SPSS Statistical Package (Version 22).

## Results

A total of 1,465 adolescents (age:  $15.1 \pm 1.4$  years; 44.7% boys; 73.9% New Zealand European; 10.0% Māori) were included in the data analysis (**Table 2**). Overall, 40.3% of surveyed adolescents attended a co-educational school and 74.7% enrolled in a non-integrated (regular) school. On average, adolescents lived 6.2 km from school. Two thirds of adolescents lived in households with two or more vehicles. Less than half of students (45.3%) initially enrolled in the school closest to their home (range across schools: 5.8% to 92.5%) (**Figure 1**).

TABLE TWO ABOUT HERE

FIGURE ONE ABOUT HERE

### Decision Making: Who Chose the School?

Overall, the decision about school choice was made in most cases by students and parents together (46.1%), followed by students only (34.1%), parents/guardians only (19.1%) and others (0.7%), with large variability in the responses noted across the schools (student-and-parent decisions: range 37% to 65%; student-only decision: 19% to 49%; parent-only decision: 5% to 40%; and others: 0% to 3%). Parental involvement in school choice decisions was more prevalent among students enrolled in integrated

schools (parent-only/student-and-parent/student-only/someone else's decision: 26.2%/51.1%/22.4%/0%) versus non-integrated schools (16.7%/44.4%/38.0%/0.9%;  $p<0.001$ ) and among students enrolled in co-educational (26.4%/42.4%/30.7%/0.5%) versus single-sex schools (14.2%/48.6%/36.5%/0.8%;  $p<0.001$ ).

### **Reasons for Choosing a Secondary School**

The students' most commonly reported reasons for choosing a school included preference for a co-educational school (for students who were enrolled in a co-educational school), facilities at the school, positive comments from parents and students from a particular school, sports programmes at the school and friends enrolled in the school (**Table 3; Figure 2**). Other reasons reported by students in the open-ended question included qualities associated with perceptions of the school (reputation, academic and special character), family legacy, location, culture, school uniform, sport success and discipline (presented from most prevalent to least prevalent).

TABLE THREE ABOUT HERE

FIGURE TWO ABOUT HERE

### **Factors Associated with Decision Making (Who Chose the School)**

In a multinomial regression analysis, compared to 'parent/guardian only' decisions, 'student only' decisions about school choice were less likely to consider proximity of the chosen school to home, siblings attended/enrolled in the same school and positive comments from other parents at the school. On the other hand, student-only decisions were more likely to be based on friends going to the chosen school and positive



comments from other students at the school. In addition, students from the less deprived socioeconomic background were more likely to make decisions by themselves regarding school choice than students from the most deprived background. Furthermore, compared to ‘parent/guardian only’ decisions, ‘student only decisions’ were associated with higher odds of enrolment in non-integrated schools (Table 4).

Similarly, compared to ‘parent/guardian only’ decisions, ‘student and parent together’ decisions about school choice were less likely to be based on proximity of the chosen school to home, siblings attended/enrolled in the chosen school and positive comments from other parents in the school (Table 4). Conversely, ‘student and parent together’ decisions were more likely to take into account factors such as friends going to the chosen school and positive comments from other students attending the school. Engaging in joint decision-making was also inversely associated with students’ age. In addition, students from the less deprived socioeconomic background were more likely to make decisions together with their parents regarding school choice than those from the more deprived background. Lastly, students in the second highest quintile of objectively assessed distance from home to school had lower odds of engaging in joint decision-making than students in the highest quintile.

#### TABLE FOUR ABOUT HERE

## Discussion

The results from the BEATS Study student survey provide a unique insight into school choice in New Zealand. While previous research has demonstrated that students want

to be involved in decision-making in terms of selecting their school (Taylor et al., 2001), there are few studies that directly ask adolescents about who chose the school and why they chose a particular school. Therefore, this paper also provides novel insights into the role and perceptions of high school students choosing a secondary school.

In the current research, adolescents responded that the decision about school choice was made in most cases by students and parents together (46%) and followed by students only (34%), parents/guardians only (19%) and others (1%). These results are similar to previous studies (Wylie & Hipkins, 2006; Wylie et al., 2004) in which students reported decisions made by parents and students together (60% age 12, 32% age 14), parents only (22% age 12, 30% age 14) and students only (15% age 12, 34% age 14), where the differences may be attributed to students at age 14 being asked to remember the decision-making process from two years earlier. According to Munro's (2014) study examining school choice from students' perspective, 58.7% of New Zealand students made the choice with their parents, 14.3% of the students made the choice alone and 27% of the parents made the decision. Unlike Reay and Ball's (1998) research in London, students from more deprived socioeconomic backgrounds were less likely to make decisions by themselves. Rosenbloom's (2010) research in New York City, as well as Reay and Lucey's (2000) research in London, demonstrate that many young people are actively involved in selecting the school with their parents, or on their own. The results of the current study clearly support the idea that students (along with their parents/guardians) are taking up the opportunity to exercise choice in the city of Dunedin (New Zealand).

Students' most commonly reported reasons for choosing a school included preference for a co-educational school, schools' facilities, positive comments from parents and students, sports programmes, and friends' enrolment. These findings suggest that a combination of consideration of the co-educational status and facilities of the school, positive feedback about the school, and existing social connections, rather than perceived proximity of school to home, influence adolescents' high school choice decisions in Dunedin, New Zealand. Consistent as well with study hypotheses, in the multivariate analysis, student-only and joint student-and-parent decisions for school choice were less influenced by logistic-related factors (such as proximity to home and sibling's enrolment) and comments from other parents compared to parent-only decisions (as reported by adolescents). Adolescents in Wylie and Hipkins' (2006) study prioritised family tradition, reputation, proximity and friends' enrolment, but did not mention co-educational school status. Similarly, adolescents in Condliffe et al.'s study (2015) named school facilities, and friends' enrolment. Perhaps unsurprisingly given Baltimore's reputation for crime and violence, students prioritised safety and frequently selected schools they were more familiar with rather than leave their neighbourhood (Condliffe et al., 2015). In contrast, Dunedin adolescents did not list safety concerns as a priority in school choice decision-making.

The reputation of the school, or the perception that it is a good school, was described in the open-ended comments. Students explained reasons behind school selection such as: "Good educational reputation", "Because it's a good school", "The educational success at this school" and "Results of students at the school". Qualities associated with perception of the school's reputation and academic standing of the school are frequently cited as a rationale for school choice internationally by adolescents and

parents (Phillippo & Griffin, 2016; Reay & Lucey, 2000; Sattin-Bajaj, 2014) as well in previous New Zealand studies (Wylie & Hipkins, 2006). Students showed concerns about selecting 'good' schools (Sattin-Bajaj, 2014) and receiving a 'good' education (Reay & Lucey, 2000), as well as the desire to attend a school with a proven record of academic achievement (Sattin-Bajaj, 2014).

When the adolescents and parents made the choice together, their reasons for school choice were very similar to the adolescent only reasons with preference for a co-educational school, followed by social aspects such as positive comments by parents and students of the school and friends going to the school. The similarity between the adolescent only reasons and the reasons made together by adolescents and their parents was further highlighted in the multivariate analysis, which revealed a shared emphasis on social factors related to the peer network (friends going to the chosen school and positive comments from other students at the school), compared with decisions made by parents only. This coincidence seemingly indicates that adolescents in this study had considerable input when making decisions about school enrolment jointly with their parents. Wylie et al. (2004) did not find any associations between who was making the decision and the reasons that were cited, with both students and parents naming good reputation, closest school family tradition, friends' attendance, and subject choice in the top five reasons, albeit in slightly different proportions. Dunedin adolescents and their parents were more likely to name co-educational status than proximity to home as a reason for school choice.

Our study presents an important contribution to the school choice literature, not only for its emphasis on student choice, but also due to the presence of integrated schools

in the New Zealand state system. The option to attend a special character school that is part of the state school system is a unique feature of the New Zealand schooling system. In the present study, reasons underlying school choice decisions were different for adolescents enrolled in non-integrated (regular) versus integrated (“special character”) schools. Compared to integrated (special character) schools, a greater proportion of students from non-integrated (regular) schools reported choosing such a school due to friends’ enrolment and school’s proximity to home. In contrast, a greater proportion of students enrolled in integrated schools (special character) reported choosing such school due to school’s facilities, positive comments from parents and students from school and other reasons. The importance of parental factors when choosing to enrol in an integrated school was further supported in the findings from the multivariate analysis.

A number of the open-ended comments from students also referred to the religious nature, or special character, of their school as a rationale for school selection including comments such as “Catholic education” and “Religion”. In Munro’s (2014) research, the special character nature of a school was not within the top ten reasons selected by students, while in Wylie and Hipkins (2006) 9% of the students at age 14 listed religion as a reason for school choice. Other studies do not list religious schools as a common reason for school choice, possibly due to the context of US schooling where religious schools are frequently private schools.

Another feature of the New Zealand state system is the option of co-educational or single-sex schooling. In the present study, co-educational status of the school was the most commonly reported consideration for a school choice among adolescents

enrolled in co-educational schools for both integrated (special character) and non-integrated (regular) schools. Attention to features such as the co-educational status of the school is unique to the New Zealand context. Only 4% of the aged 14 students in Wylie and Hipkins' (2006) study listed co-educational status as a reason for school choice. In Munro's (2014) study, the co-educational status of the school was not reported to be one of the top 10 most important items for students, and items such as students' happiness rated higher than the co-educational status of the school.

Students' responses to an open-ended question about school choice also identified importance of family legacy, location and cultural aspects of the school. Students selected schools because: "my mum teaches here" or "my cousins went to this school". Responses such as "close to the Moana pool" and "is central" suggest convenience as an important factor for some students. Students also described culture as important to their school selection: "Kapa haka and te reo Māori taught well". Integration of Māori language and cultural practices is an important aspect of the New Zealand curriculum, but some schools are more successful than others (Education Review Office, 2012). For the age 14 students in Wylie and Hipkins' (2006) study, 34% noted family tradition and 31% listed closest school as reasons for school choices, but culture was not named.

Another group of themes from students' responses to open-ended question about school choice included school uniform, sport programmes at school and discipline. A school uniform is a common requirement for New Zealand secondary schools. For some students, the presence "school uniform" or absence "mufti in yr 13" ('mufti' is slang colloquial language for meaning casual, non-uniform clothing) was listed as a

reason for their school choice. The school uniform does not seem to be a factor in student school choice decision-making in the US context. However, more common reasons for school choice in the US (Sattin-Bajaj, 2014) and New Zealand (Munro, 2014) contexts, were sport programmes at school: e.g. “The Otago hockey coach works here”. Students in Munro’s (2014) survey also identified the range of sports on offer and the school’s reputation for sporting achievement as factors in decision-making. Finally, discipline was a concern for some students: “my sister got bullied at the closest school”. Like Munro’s (2014) respondents, some students’ decisions were influenced by a concern for “firm discipline” and “no bullying” (p. 114).

The importance of many factors that influence school choice (including programmes offered by schools, social connections, and school zoning policies) may vary by who is making the decision. In the present study, the decision about school choice was made in most cases by students and parents together, followed by students-only, parents/guardians only and others with large variability across the schools. Parent-only school choice decisions were more prevalent among adolescents enrolled in integrated (special character) versus non-integrated (regular) schools and among adolescents involved in co-educational versus single-sex schools. Other studies suggest that adolescents from low income families have to assume adult roles earlier on and may be the sole decision-maker when it comes to school choice for a number of reasons (Condliffe et al., 2015). For instance, low income parents may lack social networks that give them access to more information to inform school choice decisions and rely on the adolescents to make the final choice. This was not the case for adolescents in this study, where they were less likely to make the choice alone if they were from the most deprived background socioeconomically.

In Dunedin, students and their parents/guardians have 12 public secondary schools from which to choose. Absence of the requirement to attend a local school, combined with social factors driving school choice, diminishes the perceived importance of distance to school in school choice decisions (Yang, Abbott, & Schlossberg, 2012). We found that less than half of the students (45.3%) initially enrolled in the school closest to their home with a wide variability across the schools (range across schools: 5.8% to 92.5%). Reduced enrolment in the closest (neighbourhood) school has a number of implications. From a transport and health perspective, increased distance to school is associated with reduced rates of active transport and increased rates of motorised transport to school among adolescents (Babey, Hastert, Huang, & Brown, 2009; Larsen et al., 2009; Mandic et al., 2017; Mandic et al., 2015; McDonald, 2008). This shift in transport to school habits has been observed in many developed countries, including New Zealand, over the last few decades (Chillón et al., 2013; Gray et al., 2014; McDonald, 2007; Ministry of Transport, 2011, 2015).

The shift from active towards motorised transport to school reduces the opportunity for physical activity among adolescents (Faulkner, Buliung, Flora, & Fusco, 2009; Mendoza et al., 2011) and has implications for health (Janssen & Leblanc, 2010), safety (Parusel & McLaren, 2010), traffic congestion (Buchanan, 2015) and environmental sustainability (e.g. local air pollution and global climate change) (Poudenx, 2008; Woodcock et al., 2009). In addition, concerns regarding the increased divide between low-decile and high decile schools with “lower decile schools... smaller and ‘brownier’ (90% Māori and Pasifika), and... high decile schools are much larger and have an increased ethnic mix, although numerically dominated



by pākehā” (Gordon, 2015) still remain. Future studies should examine the correlates of the enrolment in the closest high school when the school zoning/enrolment schemes are not in place, taking into consideration the difficulty of changing transport behaviours (Sirard, McDonald, Mustain, Hogan, & Helm, 2015).

### **Implications for Policy Development**

It is clear that school choice has had a negative impact on active transport and thus by implication students’ activity levels (Yang et al., 2012). In this study, adolescents and their parents did not prioritise distance with 31% of student-only and 37% of parent and student decisions naming proximity to home as a reason for their choice. The distances students travel to school have increased as a result of providing choice beyond the local school (Wilson, Wilson, & Krizek, 2007). While there are clear implications for policy, there is no simple policy solution. For example, Mackett (2013) notes policy initiatives such as Safe Routes to School, walking school buses and cycle programmes have had mixed results within a school choice policy environment. Furthermore, Sirad et al. (2015) caution that any changes to choice policies may take some time to realise their full potential.

Mackett (2013) suggests revisiting school choice policies as a way to address the decrease in active transport to school. After nearly 30 years of school choice policies in New Zealand, however, there do not appear to be any substantive changes on the horizon, and many parents/students would find it unpalatable to have their choice removed or limited (Gordon, 2015). Wilson et al. (2010) urge policy makers to take a broader view on the impact of school choice policies, and, based on our analysis, we concur. Rather than increasing competition between schools and intensifying choice,

perhaps resourcing of local schools needs to be reconsidered to encourage parents and students to attend the closest school and create opportunities to increase levels of active transport. Alternatively, policies that support transportation initiatives may provide adolescents and their parents with the choices they seek. Any policy strategy will require the Ministry of Education, schools and communities to collaborate rather than compete. School choice policies have implications for house prices, reinforcing class/wealth structures, and transport to school, especially related to rates of active transport, traffic congestion and sustainability issues.

Future policy development should take into account the broad implications of school choice and school zoning policies not only for education, but also for public health, transportation, and sustainability. Importantly, it is clear from this study that adolescents are playing a pivotal role in the school choice process, either alongside their parents, or on their own. Policy-makers will only benefit from closer consultation with adolescents as they seek policy solutions to that find ways to enhance active transport to school as well as continue opportunities for choice to which Dunedin families have become accustomed.

**Study Limitations.** This study has limitations that should be recognised. The unique setting of Dunedin may limit generalisability of findings to other New Zealand cities and other countries with different school enrolment policies. In addition, parental perspectives on school choice have not been explored in this study. Despite the limitations, the strengths include a comprehensive survey of factors affecting school choice from adolescents' perspective and a large representative sample of

adolescents from one city in New Zealand, with 100% participation rates among the schools. Future studies should examine parental perspectives on school choice.

## **Conclusions**

In Dunedin (New Zealand), less than half of adolescents initially enrolled in the school closest to their home. From the adolescents' perspective, social factors (friends' enrolment and positive comments about school) and school programmes and facilities rather than proximity to home influence secondary school choice decisions in Dunedin (New Zealand). Co-educational status of the school was the most commonly reported consideration for a school choice among adolescents enrolled in co-educational schools for both integrated and non-integrated schools. Nearly half of adolescents made the school choice decision together with their parents. From adolescents' perspective, reasons for school choice differed by who made school choice. For example, student-only decisions were focused on friends' enrolment and positive comments from other students at the school. In contrast, 'parent/guardian only' decisions focused on proximity of the chosen school to home, siblings attended/enrolled in the same school and positive comments from other parents at the school. These findings have significant implications for the future educational policy development taking into account both positive and negative implications of school choice.

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**Table 1.** Survey questions and response options

Question	Response options
When you enrolled, was this the secondary school closest to your home?	<p><i>“Yes”</i></p> <p><i>“No”</i></p>
Who decided what secondary school you would attend?	<p><i>“I did”,</i></p> <p><i>“My parent(s)/ guardian(s) did”,</i></p> <p><i>“My parent(s)/ guardian(s) and I did together”,</i></p> <p><i>“Someone else”.</i></p>
The reasons why I have chosen this secondary school/this secondary school was chosen for me is because...	
<ul style="list-style-type: none"> <li>• It is the closest school to my home</li> </ul>	<i>“Strongly disagree”</i>
<ul style="list-style-type: none"> <li>• Siblings went/go to this school</li> </ul>	<i>“Somewhat disagree”</i>
<ul style="list-style-type: none"> <li>• Parents or other family members went to this school</li> </ul>	<p><i>“Neutral”</i></p> <p><i>“Strongly agree”</i></p>
<ul style="list-style-type: none"> <li>• My friends were going to this school</li> </ul>	<i>“Somewhat agree”</i>
<ul style="list-style-type: none"> <li>• Facilities at this school</li> </ul>	<i>“I don’t know”</i>
<ul style="list-style-type: none"> <li>• Sports programmes at this school</li> </ul>	
<ul style="list-style-type: none"> <li>• Cultural programmes at this school</li> </ul>	

- Positive comments from parents of this school
  - Positive comments from students of this school
  - Negative comments from parents at closest school
  - Negative comments from students at closest school
  - I/My parent/guardian(s) preferred a single-sex school
  - I/My parent/guardian(s) preferred a co-educational school
  - Other reasons: Please specify                      Open ended
-

**Table 2.** Characteristics of study participants

		School choice decision (n=1455)*			
		Student-	Parent-only	Joint	p-
	Total	only	decision	student-	value
	sample	decision		and-parent	
				decision	
	n=1465	n=500	n=280	n=675	
Age (years)	15.1 ± 1.4	15.1 ± 1.4	15.3 ± 1.5‡	15.0 ± 1.4	0.017
Gender [n(%)]					
Boys	665 (44.7)	254 (50.8)	120 (42.9)	279 (41.3)	0.004
Girls	810 (55.3)	246 (49.2)	160 (57.1)	396 (58.7)	
School year					
[n(%)]					
Year 9	504 (34.4)	171 (34.2)	83 (29.6)	246 (36.4)	0.561
Year 10	323 (22.0)	116 (23.2)	64 (22.9)	142 (21.0)	
Year 11	246 (16.8)	80 (16.0)	47 (16.8)	117 (17.3)	
Year 12	197 (13.4)	66 (13.2)	40 (14.3)	89 (13.2)	
Year 13	195 (13.3)	67 (13.4)	46 (16.4)	81 (12.0)	
Ethnicity [n(%)]					
New Zealand European	1083 (73.9)	384 (76.8)	188 (67.1)	503 (74.5)	
Māori	146 (10.0)	50 (10.0)	40 (14.3)	55 (8.1)	

Other	236 (16.1)	66 (13.2)	52 (18.6)	117 (17.3)	0.007
Neighbourhood deprivation score [n(%)]	(n=1439)	(n=448)	(n=277)	(n=664)	
1-2 (least deprived)	453 (31.5)	154 (31.6)	68 (24.5)	228 (34.3)	
3-4	356 (24.7)	120 (24.6)	68 (24.5)	165 (24.8)	
5-6	292 (20.3)	96 (19.7)	63 (22.7)	132 (19.9)	
7-8	212 (14.7)	79 (16.2)	45 (16.2)	87 (13.1)	
9-10 (most deprived)	126 (8.8)	39 (8.0)	33 (11.9)	52 (7.8)	0.099
Co-educational status of the school [n(%)]					
Co-ed	590 (40.3)	181 (36.2)	156 (55.7)	250 (37.0)	
Boys only	383 (26.1)	167 (33.4)	42 (15.)	174 (25.8)	
Girls only	492 (33.6)	152 (30.4)	82 (29.3)	251 (37.2)	<0.001
Character of the school [n(%)]					
Non-integrated	1095 (74.7)	416 (83.2)	183 (65.4)	486 (72.0)	
Integrated	370 (25.3)	84 (16.8)	97 (34.6)	189 (28.0)	<0.001
Sibling(s) attending the	486 (33.2)	116 (23.2)	130 (46.4)	238 (35.3)	<0.001

same school

[n(%)]

Distance to school (km)	6.2 ± 7.4	6.2 ± 6.6	5.3 ± 6.1	6.6 ± 8.4	0.031
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Number of vehicles at home

[n(%)]

None	46 (3.1)	15 (3.0)	13 (4.6)	17 (2.5)	
One	404 (27.6)	157 (31.4)	82 (29.3)	162 (24.0)	
Two or more	1015 (69.3)	328 (65.6)	185 (66.1)	496 (73.5)	0.017

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\*p<0.05 Student's choice versus parental choice

†p<0.05 Student's choice versus choice made by student and parent together

‡p<0.05 Parental choice versus choice made by student and parent together

Note: Students who reported that “other(s)” have chosen their school (n=10) were excluded from the analyses related to school choice decisions.



**Table 3.** Reasons for choosing a particular school in the total sample and by who made the school choice decision

	School choice decision*								
	Total sample		Student-only		Parent-only		Joint student-and-		p-value
			decision		decision		parent decision		
	(n=1465)		(n=500)		(n=280)		(n=675)		
	(mean±SD)	(% Agree)	(mean±SD)	(% Agree)	(mean±SD)	(% Agree)	(mean±SD)	(% Agree)	
Co-educational status									
Preferred a co-educational school <sup>a</sup>	4.0 ± 1.1	68.6	4.1 ± 1.1	76.2	3.8 ± 1.2*‡	52.6	4.1 ± 1.0	73.6	0.042
Preferred a single-sex school <sup>b</sup>	2.8 ± 1.2	25.3	2.8 ± 1.2	25.4	3.1 ± 1.3	32.3	2.8 ± 1.2	23.5	0.058
Proximity to home									
Closest school to home	2.8 ± 1.5	36.5	2.6 ± 1.5†	30.6	3.1 ± 1.6*‡	46.4	2.8 ± 1.5	36.6	<0.001
Social connections									

Friends were going to this school	3.1 ± 1.4	50.7	3.3 ± 1.4	56.8	2.9 ± 1.6*‡	40.4	3.2 ± 1.4	50.7	0.001
Siblings went or go to this school <sup>c</sup>	2.5 ± 1.6	35.1	2.3 ± 1.5	28.6	3.3 ± 1.7*‡	54.8	2.4 ± 1.6	31.6	<0.001
Parents or other family members went to this school	2.3 ± 1.5	27.0	2.3 ± 1.4	25.2	2.6 ± 1.7	34.6	2.3 ± 1.5	25.2	0.072

#### **Programmes and facilities**

Facilities at this school	3.5 ± 1.2	52.3	3.4 ± 1.2†	52.4	3.3 ± 1.3‡	40.4	3.6 ± 1.1	57.6	0.006
Sports programmes at this school	3.3 ± 1.3	46.3	3.4 ± 1.3	51.0	3.0 ± 1.4*‡	33.9	3.3 ± 1.2	47.9	<0.001
Cultural programmes at this school	3.0 ± 1.3	33.0	2.9 ± 1.3	31.4	2.8 ± 1.3‡	28.6	3.1 ± 1.2	35.9	0.032

#### **Positive comments about the school**

Positive comments from parents of this school	3.4 ± 1.1	51.9	3.4 ± 1.1†	49.0	3.3 ± 1.3‡	43.2	3.6 ± 1.3	57.8	0.001
Positive comments from students of this school	3.4 ± 1.1	51.3	3.5 ± 1.2	54.6	3.0 ± 1.2*‡	30.7	3.6 ± 1.0	57.5	<0.001
<b>Negative comments from people at the closest school</b>									
Negative comments from parents at closest school	2.0 ± 1.1	8.0	2.0 ± 1.1	8.2	2.0 ± 1.2	10.0	2.0 ± 1.1	6.8	.969
Negative comments from students at closest school	2.0 ± 1.1	8.4	2.0 ± 1.1	9.6	2.1 ± 1.2	10.0	2.0 ± 1.1	6.8	.864
Other reasons	2.8 ± 0.9	7.3	2.7 ± 1.0	8.4	2.7 ± 1.0	6.8	2.8 ± 0.9	6.7	.133

<sup>a</sup>Data analysed only in students attending co-educational school.

<sup>b</sup>Data analysed only in students attending single-sex school.

<sup>c</sup>Data analysed only in students who reported having at least one sibling.

\* $p < 0.05$  Student's choice versus parental choice

† $p < 0.05$  Student's choice versus choice made by student and parent together

‡ $p < 0.05$  Parental choice versus choice made by student and parent together

\*Students who reported that “other(s)” have chosen their school ( $n=10$ ) were excluded from the analyses related to school choice decisions.

**Table 4.** Multivariate model of reasons for school choice for student-only and joint student-and-parents decisions compared to parent-only decisions

	Student-only decisions						Joint student-and-parent decisions					
	(versus parent-only decisions)						(versus parent-only decisions)					
	Coeff-	Std.	Sig.	OR	95% Confidence		Coeff-	Std.	Sig.	OR	95% Confidence	
	icient	Error			Interval		icient	Error			Interval	
					Lower	Upper					Lower	Upper
		Bound			Bound			Bound			Bound	
Sociodemographic characteristics												
Age (years)	-0.09	0.08	0.234	0.91	0.78	1.06	-0.17	0.07	0.022	0.84	0.73	0.98
Gender (ref: female)	0.19	0.25	0.455	1.21	0.74	1.97	-0.25	0.23	0.287	0.78	0.49	1.24
Ethnicity (ref: New Zealand European)												

Māori	-0.37	0.34	0.270	0.69	0.34	1.34	-0.45	0.33	0.178	0.64	0.34	1.22
Other	0.16	0.32	0.619	0.17	0.63	2.18	0.35	0.30	0.249	1.41	0.79	2.54
Neighbourhood deprivation score (ref: 9-10 (most deprived))												
1-2 (least deprived)	<b>0.98</b>	<b>0.41</b>	<b>0.016</b>	<b>2.67</b>	<b>1.20</b>	<b>5.94</b>	<b>1.04</b>	<b>0.39</b>	<b>0.008</b>	<b>2.82</b>	<b>1.31</b>	<b>6.08</b>
3-4	0.38	0.40	0.339	1.46	0.67	3.18	0.45	0.38	0.235	1.47	0.75	3.32
5-6	0.44	0.39	0.266	1.55	0.72	3.36	0.54	0.38	0.157	1.71	0.81	2.58
7-8	0.67	0.42	0.260	2.60	0.71	3.60	0.26	0.40	0.509	1.30	0.59	2.87
<b>Distance to school</b> (ref. quintile 5 – longest distance)												

Quintile 1													
(shortest distance)	-0.57	0.39	0.146	0.57	0.26	1.22	-0.65	0.37	0.081	0.52	0.25	1.08	
Quintile 2	-0.60	0.37	0.107	0.55	0.27	1.14	-0.53	0.36	0.138	0.59	0.29	1.19	
Quintile 3	0.08	0.39	0.808	1.10	0.51	2.36	-0,04	0.38	0.915	0.96	0.46	2.01	
Quintile 4	-0.56	0.37	0.126	0.57	0.28	1.17	<b>-0.86</b>	<b>0.36</b>	<b>0.016</b>	<b>0.42</b>	<b>0.21</b>	<b>0.85</b>	

### School-related

#### factors

Co-educational  
status (ref. single-  
sex school)

Co-educational school	-0.32	0.31	0.310	0.73	0.39	1.35	-0.34	0.29	0.241	0.71	0.40	1.26	
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School character  
(ref. non-integrated  
school)

Integrated school	<b>1.32</b>	<b>0.46</b>	<b>0.004</b>	<b>3.73</b>	<b>1.51</b>	<b>9.25</b>	-0.38	0.42	0.367	1.46	0.64	3.29
School size	0.00	0.00	0.765	1.00	0.99	1.00	0.00	0.00	0.114	1.00	1.00	1.00
School decile	0.06	0.11	0.615	1.06	0.85	1.31	0.02	0.10	0.831	1.02	0.84	1.24
<b>Reasons for school choice</b>												
Preferred a co-educational status of the chosen school	-0.04	0.10	0.698	0.96	0.80	1.17	-0.05	0.09	0.571	0.95	0.79	1.14
Closest school to home	<b>-0.37</b>	<b>0.11</b>	<b>0.001</b>	<b>0.69</b>	<b>0.56</b>	<b>0.86</b>	<b>-0.22</b>	<b>0.11</b>	<b>0.037</b>	<b>0.80</b>	<b>0.65</b>	<b>0.99</b>
Friends were going to this school	<b>0.32</b>	<b>0.09</b>	<b>&lt;0.001</b>	<b>1.27</b>	<b>1.16</b>	<b>1.63</b>	<b>0.25</b>	<b>0.08</b>	<b>0.003</b>	<b>1.28</b>	<b>1.09</b>	<b>1.51</b>
Siblings went or go to this school	<b>-0.41</b>	<b>0.07</b>	<b>&lt;0.001</b>	<b>0.66</b>	<b>0.58</b>	<b>0.77</b>	<b>-0.36</b>	<b>0.07</b>	<b>&lt;0.001</b>	<b>0.70</b>	<b>0.61</b>	<b>0.80</b>



Parents or other													
family members	-0.02	0.08	0.851	0.99	0.85	1.15	-0.07	0.07	0.316	0.93	0.8-	1.07	
went to this school													
Facilities at this													
school	-0.09	0.11	0.426	0.92	0.73	1.14	0.02	0.11	0.835	1.02	0.83	1.22	
Sports programmes													
at this school	0.16	0.10	0.121	1.12	0.92	1.36	0.00	0.10	0.986	1.00	0.83	1.22	
Cultural													
programmes at this	0.11	0.10	0.269	1.12	0.92	1.36	0.13	0.10	0.185	1.14	0.94	1.37	
school													
Positive comments													
from parents of this	<b>-0.42</b>	<b>0.14</b>	<b>0.003</b>	<b>0.66</b>	<b>0.50</b>	<b>0.86</b>	-0.34	0.13	0.070	0.79	0.60	1.02	
school													
Positive comments													
from students of	<b>0.59</b>	<b>0.14</b>	<b>&lt;0.001</b>	<b>1.87</b>	<b>1.38</b>	<b>2.35</b>	<b>0.54</b>	<b>0.13</b>	<b>&lt;0.001</b>	<b>1.72</b>	<b>1.34</b>	<b>2.22</b>	
this school													

Negative comments

from parents at	0.08	0.21	0.694	1.09	0.72	1.63	0.13	0.20	0.947	1.01	0.68	1.50
closest school												

Negative comments

from students at	-0.18	0.20	0.372	0.84	0.56	1.24	-0.11	0.20	0.563	0.89	0.61	1.31
closest school												

Other reasons	0.10	0.12	0.391	1.11	0.88	1.39	0.16	0.11	0.170	1.17	0.94	1.60
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Note: Statistically significant correlates are in bold.

## List of Figures

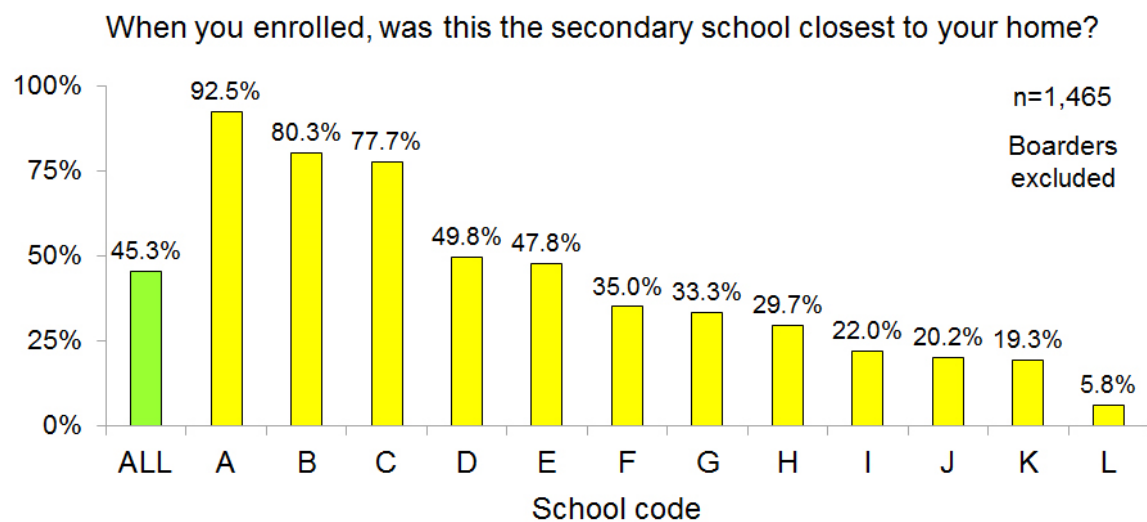
Figure 1. Proportion of students enrolling in the school closest to home – variation by school

Figure 2. Reasons for choosing a secondary school in Dunedin

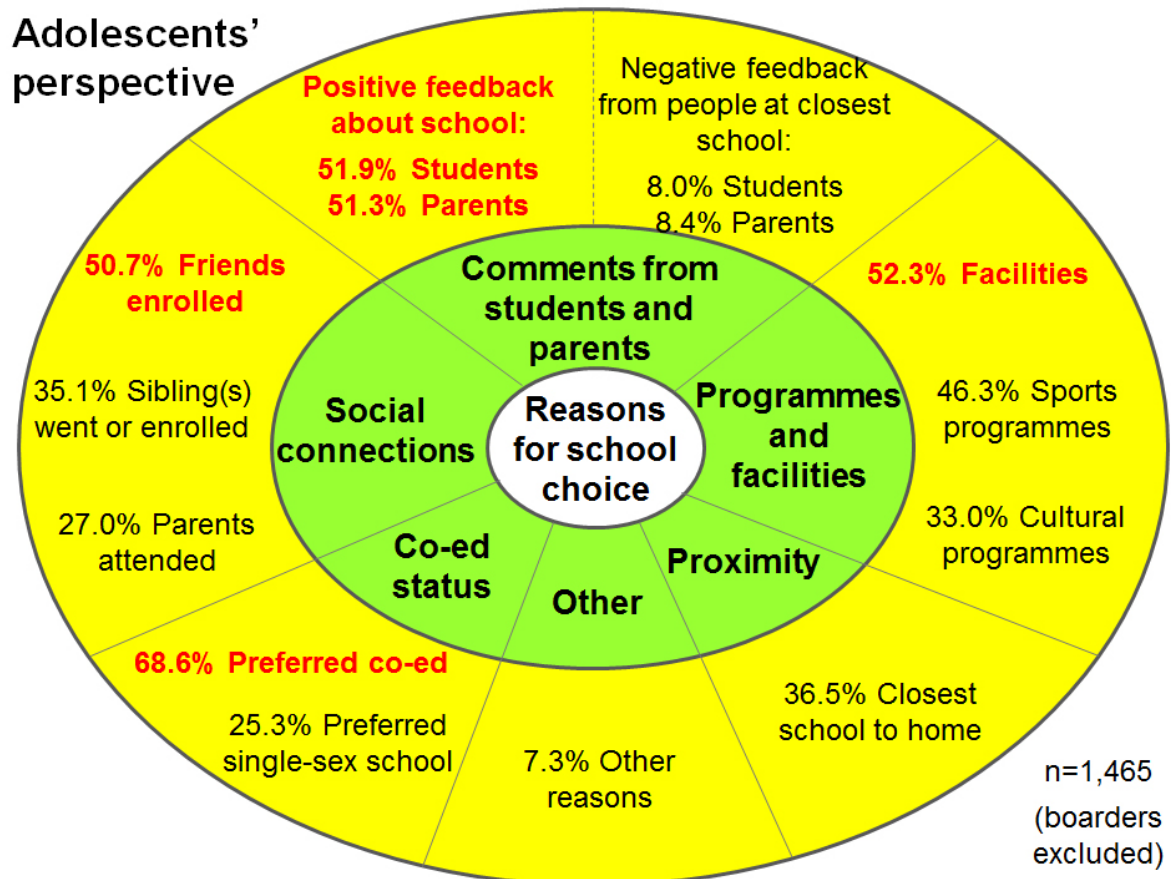
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