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What Do We Value Most In Schools?

A Study of Preference Rankings of School Attributes*

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Abstract

Objectives: A key question in education policy as well as individuals' school choice involves the characteristics of schools we value most. It is thereby important to understand any heterogeneity in parents', teachers' and school principals' preference rankings driven by their education level, gender and age.

Methods: In this article, we propose a survey-based approach to examine preference *rankings* of diverse school attributes, which accounts for trade-offs required in real-world choice situations.

Results: Our results indicate that stakeholders on average rank the 'ethical' aspects of schools (such as pupil and staff happiness and equality of opportunities) above its 'efficiency' aspects (such as academic achievement or school size). Yet, respondents' role in the school as well as their education level, gender and age influence observed preference rankings.

Conclusions: To avoid biased inferences, survey designs on school preferences should account for the fact that real-world choices in favor of one particular characteristic often imply giving up at least some others. Doing so, we show that parents, teachers and school principals appear to disagree with the predominant consideration awarded to academic achievement in current education policies.

Key words: Preference ranking, School choice, Education policy, Survey, Belgium.

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1. Introduction

Education policy reform movements often include demands for increased school choice, and several variants of school choice programmes have in recent years been implemented in both developed and developing countries (Schneider and Buckley, 2002; Lavy, 2015). Using such policy experiments, a rapidly expanding literature investigates the short- and long-term effects of school choice on, for instance, educational attainment (Lavy, 2010; Deming *et al.*, 2014; Wondratschek *et al.*, 2014; Chingos and Peterson, 2015), employment and earnings (Lavy, 2015), and misbehavior and crime (Cullen *et al.*, 2006; Deming, 2011). Yet, increased school choice also invites the question what, given choice, we really expect from schools. Existing research into such school preferences has focused almost exclusively on whether parents make school decisions along “educationally sound dimensions” such as academic achievement (Schneider and Buckley, 2002, 133). Early contributions thereby generally rely on surveys where parents are not required to make trade-offs between diverse school characteristics (Coldren and Boulton, 1991; Lee *et al.*, 1994). More recent work, however, also examines parents’ revealed – rather than stated – preferences (Schneider and Buckley, 2002; Jacob and Lefgren, 2007), actual school choices (Weiher and Tedin, 2002; Lankford and Wyckoff, 2006), or analyses how school characteristics affect housing prices (Black, 1999; Figlio and Lucas, 2005).

In this article, we add to this literature via three contributions. First, we move beyond the strict focus on *parents’* preferences in the existing literature. While parents are key players in the school choice of their children, an exclusive focus on their preferences ignores potentially diverging opinions among different sets of stakeholders. A direct comparison of parents, teachers and school principals can help evaluate to what extent schools are emphasizing the ‘right’ performance criteria to attract parents and their children (Cheng *et al.*, 2016), or

highlight the potential for principal-agent problems between school principals and their teachers. Consequently, such comparisons can have direct implications for policy-makers and practitioners (e.g., with respect to the optimization of schools' recruitment strategies).

Second, we propose a survey-based empirical framework where respondents provide explicit *rankings* of diverse school attributes. The methodological design thus requires respondents not only to point out characteristics they value in schools (as in previous surveys; Coldren and Boulton, 1991; Lee *et al.*, 1994), but also reveal their *relative* valuation of these school attributes – that is, what they value *most* (or *least*) in schools. This is important since schools are complex, multifaceted institutions that can differ from one another along a wide range of dimensions, which implies that people generally face complicated trade-offs between schools' varying characteristics. Our 'ranking' approach explicitly imposes that, as in reality, choices in favor of one particular characteristic imply giving up at least some others.

Finally, the relation between individuals' socio-demographic characteristics and their school choice preferences has remained largely unexplored beyond the effects of race (Henig, 1990; Weiher and Tedin, 2002) and family income (Hastings *et al.*, 2005). Although race is of central concern in the US setting, the almost exclusive attention to race ignores that other socio-demographic characteristics might likewise matter – even in a US setting. While we use non-US data (i.e. Belgium) to illustrate the potential relevance of age, gender and education for individuals' school preferences, there is nothing unique about our empirical setting that would exclude a similar analysis in different countries (including the US). In fact, we strongly believe that any setting with some degree of school choice would allow for (a test of) similar effects. Hence, our theoretical discussion should naturally be of interest also to scholars – and policy-makers – outside the empirical setting studied here.

Our empirical analysis exploits a primary source of data collected via a unique new survey distributed among parents, teachers, and school principals in the Flemish part of Belgium. The sample available for analysis includes 355 teachers, 338 parents and 126 school principals. Our main findings indicate that pupil and staff happiness as well as equality of opportunities across pupils are on average ranked above academic achievement in our analysis. This is an interesting observation since “government policy often assumes that academic achievement is the primary objective of education” (Jacob and Lefgren, 2007, 1603) and official government assessments of schools usually award much attention to test scores. Clearly, other stakeholders appear to disagree with this emphasis in current public policy. This does *not* imply that parents, teachers and school principals do not care about academic achievement. They certainly do. Yet, when forced to choose, other school characteristics including pupil/staff happiness and equality of opportunities tend to precede the valuation of academic achievement.

Furthermore, we find substantial evidence that several socio-demographic characteristics influence individual-level preference rankings. For instance, the strong and statistically significant effect of individuals’ education on their school preferences confirms and extends earlier studies indicating that *parental* school choices are affected by parents’ income level (Hastings *et al.*, 2005). Moreover, in line with socio-emotional selectivity theory (Fung and Carstensen, 2003) and gender differences in individual-level policy preferences (Lott and Kenny, 1999; Edlund and Pande, 2002; Funk and Gathmann, 2015), we also observe variation in school preferences by age and gender – although these generally remain statistically and substantively limited.

2. Survey and Data

2.1. Institutional setting

Belgium is a federal country with four levels of government: the federal level, the Regions and Communities, the provinces and the municipalities. Within this institutional framework, the Dutch-, French- and German-speaking Communities have near-exclusive autonomy over education matters since a large-scale devolution operation implemented in 1988-89, which moved this policy area from the federal to the regional level of government. Nonetheless, despite this regionalization of education policy, the basic educational systems in the three language communities are effectively run along very similar lines.

In principle, everyone in Belgium has a constitutional right to organize education (and establish schools for that purpose) without government interference and without constraints imposed on all pedagogical aspects of the education provided. Naturally, limitations to this constitutional right are imposed by the government via educational standards and targets that pupils have to attain at the end of each stage of their education (so-called ‘eindtermen’), safety- and hygienic standards for school buildings, and so on. Yet, within these basic parameters, schools have a very substantial autonomy in developing their own tools and methods to reach the governments’ targets. This is also reflected in the way Belgian schools are funded by the government. Indeed, all schools recognized by the Belgian government receive a subsidy aimed at covering the schools’ operating costs (including the wages of its staff). This subsidy per school is provided as a block grant, and the school has full autonomy in terms of the allocation of its operating budget (beyond the wages of its staff).

The constitutional right to organize education and the broad financial autonomy of government-recognized schools induces substantial variation among Belgian schools’

characteristics. Moreover, Belgium is characterized by free school choice, and there are no catchment areas. Consequently, parents are free to enroll their child in whichever school they prefer (subject to the availability of space). This is important for our analysis since it provides an ideal setting to study what, given choice, various stakeholders really expect and/or require from schools.

2.2. *The survey*

Our dataset derives from an online closed-form survey administered between May and July 2014 among school principals, teachers and parents in Flanders (the Dutch-speaking part of Belgium). The first two groups – principals and teachers – were addressed by distributing a link to the survey among 679 Flemish secondary schools and 2293 Flemish primary schools, and asking them to circulate it among their staff. To reach parents, we collaborated with *Klasse voor ouders* (“Education for parents”) – a monthly magazine in the Flemish region providing parents with information about schools, teaching, and broader educational tips. They uploaded a link to our survey on the magazine’s website and included it in their newsletter. The final sample available for analysis consists of valid responses obtained from 338 parents, 355 teachers and 126 school principals.

Since each school has one unique principal, the response rate for principals is about 4%. This is admittedly low, and in part derives from our inability to remind people of our survey. As we have no way of estimating how many parents saw the link that was uploaded by *Klasse* (see above), or how many schools forwarded our survey to their teachers, we unfortunately cannot calculate the overall, nor the group-specific, response rates of our survey. This has important implications for the external validity of our empirical results, and should be kept in mind during the empirical analysis below. Still, we consider this less problematic since our

main contributions lie in our novel methodological design and extending the theoretical discussion of school preference determinants beyond race and income – both of which should be generally applicable (or, at least, testable) in other settings.

The first section of the survey collected information about a number of basic socio-demographic characteristics of the respondents (including sex, age and education level). Then, the second section investigated respondents' preferences with respect to several school characteristics. The question eliciting respondents' school preferences reads: "*In your opinion, what are the most important goals and priorities of a school*". We provided respondents with eight characteristics of schools (in a randomized order) – i.e. academic achievement, equality of opportunities for all pupils, number of pupils (or school size), school ideology (i.e. community, public or private school)¹, school prestige, happiness of staff, happiness of pupils, and modern Information and Communication Technology (ICT) – and asked them to rank these attributes in decreasing order of their preference (i.e. 1 is the most important attribute, 2 is the second-most valued characteristic, etc.). A screenshot of this question format is provided in Figure X.1 of the online appendix.² Importantly, to accommodate the possibility that some of the attributes we mentioned might not matter at all to (some) respondents, we did not impose that respondents complete the ranking for all eight attributes. As a result, several respondents did indeed provide incomplete rankings (i.e. 133 out of 749 respondents, or 18% of the sample). In the analysis below, we assume that all non-

¹ Three broad types of educational institutions have developed in Belgium: community schools, public schools and private schools (Vlaams Ministerie van Onderwijs en Vorming, 2015). Community schools are run and supervised by the ministry of education of the relevant language Community (which is the Dutch-speaking Community in Flanders), and must be neutral with respect to the religious, philosophical and ideological convictions of all parents and pupils within the school. Public schools are run by the provincial or municipal governments, whereas privately run schools include Catholic, Jewish, Protestant, Islamic and Orthodox schools. Private, Catholic schools constitute the largest group in terms of both number of schools and pupils.

² We pre-tested the question using a limited-sample pilot study among employees at Vrije Universiteit Brussel, which aimed at ensuring that all concepts employed were clear and expressed comprehensibly. Feedback from these initial respondents led to minor revisions in the wording of the question and of several school attributes. All pilot respondents understood and interpreted our final question wording as well as our phrasing of the various school characteristics accurately.

ranked attributes are equally unimportant to a respondent, which appears intuitively reasonable given that these attributes do not appear to have been worthy of any attention at all. Moreover, to retain this information in the analysis, we coded all non-ranked school characteristics as having obtained a rank 9 (i.e. one rank below the lowest possible rank that could be awarded by respondents). We will, however, return to this methodological choice below.

3. Empirical model and hypotheses

We estimate the following linear multivariate regression model (with superscript k referring to school attributes $k = 1, \dots, 8$ and subscript i referring to respondent $i = 1, \dots, N$):

$$\text{Attribute}_i^k = \alpha^k + \beta_1^k \text{Role}_i + \beta_2^k \text{Female}_i + \beta_3^k \text{Age}_i + \beta_4^k \text{Education}_i + \delta^k \text{Controls}_i + \varepsilon_i^k$$

Where Attribute_i^k reflects the ranking awarded by respondent i to each of the eight attributes ($k = 1, \dots, 8$) included in the analysis. We estimate the regression model simultaneously for all eight attributes to accommodate the fact that respondents decided jointly on the ranking of all school attributes (Greene, 2011).³ Clearly, one might argue that (generalized) ordered logistic regressions would be more appropriate given the ranked ordinal nature of our dependent variables. While we prefer the multivariate regression approach outlined above as it accounts for the joint error structure of the eight estimated equations, it is important to observe that independently estimated ordered logistic regressions leave our main inferences unaffected (see table X.1 in the online appendix).

³ The online survey software ensured that respondents could only give one school characteristic the first, second, third, ... rank. The ensuing lack of independence across equations may also be modelled more explicitly via, for instance, Seemingly Unrelated Regressions (SUR). However, since all equations use the exact same set of explanatory variables, this approach will be numerically identical to the OLS results reported in the main text.

The first independent variable – *Role_i* – is a set of two indicator variables equal to 1 for teachers (0 otherwise) or school principals (0 otherwise), respectively. Parents are the excluded reference category. With respect to school principals, we hypothesize that their managerial position will induce them to attach more value to school attributes such as pupils’ academic achievements and the happiness of their staff – relative to other stakeholders. The expected stress on academic achievement arises because school performance is often believed to influence parents’ school choice (Coldren and Boulton, 1991; Lee *et al.*, 1994) and lies at the heart of both government policy and governments’ evaluation of schools (Jabob and Lefgren, 2007). Principals’ high valuation of staff happiness is expected to result from the “belief that satisfied workers perform better” (Fisher, 2003; Van De Voorde *et al.*, 2012). With respect to teachers, we expect them to attach more value to staff happiness (for obvious reasons) and less value – relative to other stakeholders – to school size. The reason for the latter expectation is that school size generally translates into more pupils per class – which has been found to contribute significantly to teacher turnover (Loeb *et al.*, 2009).

H1a: Relative to other stakeholders, school principals attach more value to school attributes such as pupils’ academic achievements and the happiness of their staff.

H1b: Relative to other stakeholders, teachers attach more value to staff happiness and less to school size.⁴

The second independent variable – *Female_i* – is an indicator variable set to 1 for female respondents (0 for male respondents). It aims to assess whether personality differences between women and men deriving from, for instance, biological and social-cultural factors

⁴ As our argument implicitly maintains that staff happiness and school size may be inversely correlated, it could be difficult to properly identify the independent roles of staff happiness and school size in teachers’ school choice preferences in the empirical analysis. Still, the extent to which this creates a concern in our dataset is an empirical matter.

(Eysenck, 1992; Feingold, 1990, 1992, 1994) induce gender-related differences in the valuation of school attributes. We particularly expect that women attribute more value to the ‘ethical’ aspects of schools (such as pupil and staff happiness and equality of opportunities) relative to its ‘efficiency’ aspects (such as academic achievement or school size). This expectation is based on extensive social-psychological research on gender roles and behavior indicating that, compared to men, women have stronger pro-social preferences (Venkatesh *et al.*, 2000; Croson and Gneezy, 2009) and display more caring and empathetic personality traits (Feingold, 1994; Costa *et al.*, 2001). Men instead show more instrumentality in their choices compared to women (Spence and Helmreich, 1980; Venkatesh *et al.*, 2000), and tend to be more task- and attainment-oriented (Hoffman, 1972; Minton and Schneider, 1980).

H2: Compared to men, women attach more value to the ‘ethical’ aspects of schools relative to its ‘efficiency’ aspects.

The third independent variable – *Age_i* – is a set of three indicator variables set equal to 1 for, respectively, respondents between 31 and 40 years, 41 and 50 years, and above 50 years (0 otherwise). Individuals aged under 30 years are the excluded reference category.⁵ Based on the observation that older individuals attach greater importance to goals that are emotionally meaningful (Fung and Carstensen, 2003), we expect that older respondents attribute more value to the ‘ethical’ aspects of schools (such as pupil and staff happiness and equality of opportunities) relative to its ‘efficiency’ aspects (such as academic achievement or school size). With respect to modern ICT infrastructure as a school attribute, younger generations are often better informed about, and experienced with, new ICTs than older generations. They

⁵ We initially modelled the age variable using either a linear or quadratic operationalisation. This indicated a statistically significant non-linearity in the estimation equations of several school attributes, but the inferences drawn never differed from the operationalisation employed in the main text (details upon request). Hence, we only report results using the simple four-group categorisation to preserve space.

also value the usefulness of new technologies more than older individuals (Morris and Venkatesh, 2000; Venkatesh *et al.*, 2003; Wang *et al.*, 2009). Both elements might buttress a more positive valuation of ICTs in education relative to other school characteristics.

H3a: Older individuals attach more value to the ‘ethical’ aspects of schools relative to its ‘efficiency’ aspects.

H3b: Younger individuals attach more value to modern ICTs in schools.

Our fourth independent variable – *Education_i* – addresses the fact that parental preferences for schools’ academic outcomes have been shown to increase with parents’ socio-economic status (Hastings *et al.*, 2005). We include a set of two indicator variables set equal to 1 for respondents with college (0 otherwise) or university education (0 otherwise). Respondents with secondary or lower education are the excluded reference category. In line with previous findings for family income (Hastings *et al.*, 2005), we expect the value attached to academic achievement to increase with respondents’ own education level. It remains an empirical matter, however, how respondents’ education level affects their relative valuation of the other school attributes included in our analysis (but generally excluded in previous research).

H4: The valuation of academic achievement increases with individuals’ education level.

Finally, we include two control variables. On the one hand, as the survey was distributed in primary and secondary schools, we include an indicator variable for respondents linked to secondary schools (44% of the sample). On the other hand, we control for respondents’ ownership of a tablet computer (67% of the sample). This control variable is critical in our case since one of the school attributes evaluated concerns modern ICT infrastructure, which

is likely to be ranked particularly high among individuals with a strong personal interest in, and experience with, technological appliances.

4. Results

4.1 Main findings for the full sample

We start the analysis by looking at the overall distribution of preferences regarding school priorities among our respondents. Figure 1 provides this information in two complementary ways. The boldface line visualizes the average rank of each individual school attribute obtained across all respondents – with lower average ranks indicating a higher mean valuation of this school attribute. Each stacked column represents the shares of first, second, third, etc. ranks obtained by each school characteristic, and thus provides more information about the actual distribution of rankings across school characteristics. Larger blocks thereby indicate that a larger share of our respondents ranked this school attribute at a certain position in their preference ranking.

Figures 1 and 2 about here

Figure 1 clearly indicates that the happiness of pupils and equality of opportunity for all pupils obtain the lowest average rankings across all respondents. In other words, these characteristics receive the highest average valuation among respondents' school priorities.⁶ They are followed by roughly equal average rankings for the happiness of staff, academic achievement, school ideology and modern ICT-infrastructure. Finally, the highest average rankings (or lowest average valuation) are obtained by the number of pupils in the school and the prestige of the school. Studying the shares of top/bottom ranking of school attributes

⁶ Note that this high valuation of equal opportunities is in line with a vast academic literature suggesting that fairness considerations play a key role in individuals' decision-making (Mirrlees, 1971; Kahneman *et al.*, 1986; Camerer and Thaler, 1995; Fehr and Gächter, 2000).

across respondents allows drawing similar inferences. For instance, the happiness of pupils receives the highest share of top rankings while equality of opportunity receives the largest share of second places in respondents' preference rankings. The number of pupils in the school and the prestige of the school are placed most often at the other end of respondents' preference rankings, with the largest shares of eighth places and non-rankings (displayed as rank 9 in figure 1).

Interestingly, therefore, our respondents on average rank the 'ethical' aspects of schools (such as pupil and staff happiness and equality of opportunities) above its 'efficiency' aspects (such as academic achievement or school size). A similar observation likewise materializes for each group of stakeholders in our analysis (see Figure 2). These results are strongly at odds with previous survey-based research, which tends to highlight the primacy of academic achievement in parents' *stated* preferences for schools (Coldren and Boulton, 1991; Lee *et al.*, 1994). However, earlier surveys have been criticized extensively for not requiring parents to take into account the real-world trade-offs between diverse school characteristics (Schneider and Buckley, 2002; Jacob and Lefgren, 2007). Our results suggest that this is indeed an important omission. By explicitly requiring respondents to rank diverse school attributes and thus take into account the trade-offs that occur in real-world settings, our findings more closely replicate observations made in studies of 'real' school choice or 'revealed' preferences. Such studies likewise illustrate that attributes such as schools' socio-economic composition often precede academic achievement in parents' actual school preferences (Schneider and Buckley, 2002; Lankford and Wyckoff, 2006; Jacob and Lefgren, 2007). This correspondence with studies of actual school choices indicates that explicitly imposing trade-offs between school characteristics – as in our survey – makes people state more 'realistic' preferences, which provides an important validation of our ranking approach.

Table 1 turns to a more detailed evaluation of our four hypotheses on socio-demographic heterogeneity in individual-level preference rankings of school attributes. Each column represents the results of one equation within our multivariate regression model with respondents' ranking of a respective school attribute as the dependent variable.

Table 1 about here

Starting at the top of table 1, our analysis first of all shows that there are several statistically significant differences between the preference structures of the three groups of stakeholders in our analysis. For instance, relative to both parents and teachers, school principals on average award statistically significantly higher value – and thus lower rankings – to pupils' academic achievement and staff happiness (see columns (1) and (6)). Indeed, the coefficient estimates suggest that, all else equal, they place these school characteristics on average almost one rank higher than parents and teachers. This is in line with hypothesis H1a, which argued that principals' managerial function would lead them to attribute more value to the performance-related aspects of the school. Our expectations with respect to teachers expressed in H1b, however, meet with less support in table 1. Relative to both parents and principals, teachers are *not* more likely to give higher valuation to staff happiness (column (6)). They do, however, tend to rank school ideology statistically significantly higher in their preference ranking (i.e. on average two thirds of a ranking position; see column (4)), which is most likely to result from a degree of self-selection that matches teachers with a particular ideological stance to schools of that same persuasion. Finally, although we did not formulate specific hypotheses about potential differences between parents, on the one hand, and teachers and principals, on the other hand, this is where our results indicate the clearest

heterogeneity. Parents award *higher* priority in their preference rankings to school size (i.e. on average three quarters of a ranking position; see column (2)) and modern ICTs (i.e. on average one half to three quarters of a ranking position; see column (8)), but *lower* priority to equal opportunities (i.e. on average three quarters of a ranking position; see column (3)). While all three findings are statistically significant at the 99% confidence level, the latter finding initially appears particularly remarkable. One potential explanation may be that parents' inherent aspiration for their own child(ren)'s success and well-being could come to dominate over the socially desirable equality of opportunities across all pupils. For teachers and principals, the normative prescripts entailed in equal opportunities are much less likely to be countermanded by any such child-specific preferences. Nevertheless, this finding – and our tentative explanation – clearly requires further analysis in future research.

With respect to the hypothesized effects of respondents' gender and age (H2, H3a and H3b), the most important conclusion from our analysis is that there are only few statistically significant differences in our respondents' preference structures. Women tend to attach somewhat less value to the number of pupils in the school and the school's prestige compared to men (i.e. on average one third of a ranking position; see column (2) and (5)). Yet, there is no statistically significant evidence that they attach greater importance to the 'ethical' aspects of schools (such as pupil and staff happiness and equality of opportunities) relative to its 'efficiency' aspects (hypothesis H2).⁷ Similarly, no clear patterns arise regarding differences in the preference structures across age groups. Compared to the youngest generation in the sample (i.e. those aged 30 years or less), respondents aged between 31 and 40 attach less

⁷ This conclusion weakens when excluding all respondents with incomplete preference rankings (see Table X.3 in the online appendix). The observed effects of gender on school size and prestige lose statistical significance at conventional levels in this restricted sample, whereas the effect of gender on pupil happiness now does become statistically significant at the 95% confidence level. Hence, excluding respondents with incomplete preference rankings uncovers at least some evidence for the view that women attach greater importance to the 'ethical' aspects of schools (i.e. pupil happiness) relative to its 'efficiency' aspects (hypothesis H2).

value to pupils' academic achievement (column (1)), whereas respondents over 50 years attach less value to pupil happiness (column 7)) – all else equal. Furthermore, school ideology appears to be valued more by the two middle-aged groups (column (4)). Nonetheless, overall, evidence that older individuals attach greater importance to the 'ethical' aspects of schools relative to its 'efficiency' aspects (hypothesis H3a), or that younger individuals attach more value to modern ICTs in schools (hypothesis H3b) seems absent from table 1.

More important differences do occur, however, with respect to respondents' socio-economic status. As predicted by hypothesis H4, people with university or college education express a higher valuation of academic achievement relative to other school attributes (column (1)). This confirms a similar effect of family income observed by Hastings *et al.* (2005), and is one of the strongest effects observed throughout our analysis. Indeed, the coefficient estimates suggest that, all else equal, highly educated individuals place academic achievement on average almost one entire rank higher than individuals with primary or secondary education. Still, other important differences also occur with respect to the importance attached to school size (valued less by more educated people) and modern ICTs and pupil happiness (both valued higher by more educated people).⁸ The higher valuation of modern ICTs in schools by higher-educated individuals might derive from the fact that such individuals are more likely to have employment where knowledge of modern ICTs is critical. As such, they may feel more strongly about the provision of such information to their children in school. Note also that our results suggest that, for higher-educated people, educational achievement and pupil happiness are clearly *not* to be perceived as a trade-off. Both are jointly placed further up these individuals' preference rankings (relative to lower-educated people), such that the

⁸ Most of these effects strengthen when excluding respondents with incomplete preference rankings. Moreover, the effects of college education on equal opportunities and prestige now also become statistically significant.

realization of higher academic achievement by the school should in their eyes *not* work to the detriment of pupils' happiness.

Finally, it is worth pointing out that individuals linked to secondary schools as well as tablet owners place integrating modern ICTs in schools at statistically significantly lower positions in their preference structure (see column (8)), and thus give it a higher valuation relative to other school attributes. The latter finding suggests that people experienced with using new technologies are also those most positive about their potential contribution to students' performance and education. Such line of argument is substantiated by the fact that people who own tablets tend to have higher approval ratings of such technologies in educational settings (Hassan and Geys, 2016).

4.2 Disaggregated findings by stakeholder groups

The empirical analysis in table 1 implicitly assumes that the role of socio-demographic characteristics in determining school choice preferences is the same for all three stakeholders included in our analysis. That is, even though we allow for varying preferences *across* these three groups, the modelling does not allow diverging roles of socio-demographic characteristics for explaining variation *within* each group. Yet, one could argue that parents, teachers and principals should *not* be treated equally in the same model because they are stakeholders with competing (and sometimes adversarial) relationships, and this arguably generates an important heterogeneity issue.

This section therefore briefly discusses the main findings from a disaggregated analysis where we ran the same multivariate regression model separately for the three sets of stakeholders (detailed results are provided in Tables X.4 to X.6 in the online appendix). This

highlights a number of interesting similarities and differences between the determinants of parents' and teachers' school choice preferences (the same holds for principals, but the small sample size for this stakeholder leads us to abstain from putting much weight on this observation). For instance, respondents' education level links to higher value attached to academic achievement among both parents and teachers. Yet, teachers with higher education levels also attach higher value to pupil happiness and modern ICTs and lower value to the school's ideology – which we do not observe in the sample of parents. Similarly, female parents are less interested in academic achievement, school size and modern ICTs (compared to male parents), while female teachers instead care less about school ideology and prestige (compared to male teachers).

Although the limited sample size and likely unrepresentative nature of our sample (see above) require us to be careful in drawing strong inferences regarding these observations, they do raise important questions as to *why* the preferences of parents, teachers and principals should be determined in similar or different ways by their socio-demographic characteristics. Given our limited theoretical priors about such variation and the low empirical power of our dataset to address this question, this appears an important avenue for further research.

5. Conclusion

In this article, we introduce a survey-based approach to study school choice preferences whereby respondents are required to *rank* diverse school attributes in order of their preference – rather than merely point out the characteristics they value in schools (as in previous survey-based research; Coldren and Boulton, 1991; Lee *et al.*, 1994). This is important since, in reality, choices in favor of one particular characteristic imply giving up at least some others – a property of choice settings that should be replicated in survey designs to avoid biased

inferences. Furthermore, we extend previous studies on the influence of socio-demographic characteristics for school choices (Henig, 1990; Weiher and Tedin, 2002; Hastings *et al.*, 2005) by investigating the potential roles of individuals' education level, gender and age.

Our main findings can be summarized as follows.

- First, we find that the 'ethical' aspects of schools (such as pupil and staff happiness and equality of opportunities) are, on average, ranked above its 'efficiency' aspects (such as academic achievement or school size). Parents, teachers and school principals thus appear to disagree with the predominant consideration awarded to academic achievement in current public policy.
- Second, the role of individuals in the educational environment – i.e. as parent, teacher or principal – has an important influence on the observed preference structures. For instance, keeping all else constant, principals' managerial function leads them to attach relatively more value to academic achievement and staff happiness, teachers find relatively more value in the school's ideology and equal opportunities for pupils, while parents express a higher priority to school size and modern ICTs in schools.
- Third, individual-level school preference structures do not exhibit extensive differences with respect to individuals' age and gender. The influence of education, however, is among the strongest determinants of school preference structures in our analysis. Specifically, people with university or college education tend to care relatively more for academic achievement, which confirms earlier results indicating a similar effect of family income in the US setting (Hastings *et al.*, 2005).

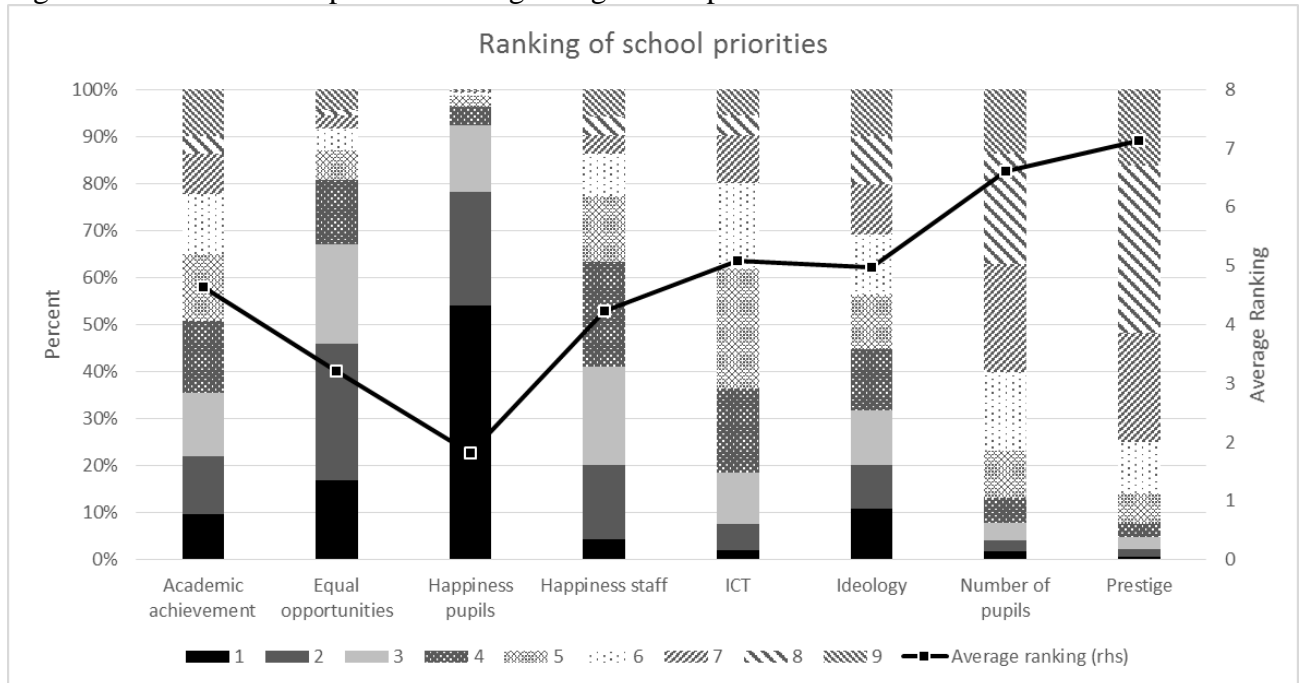
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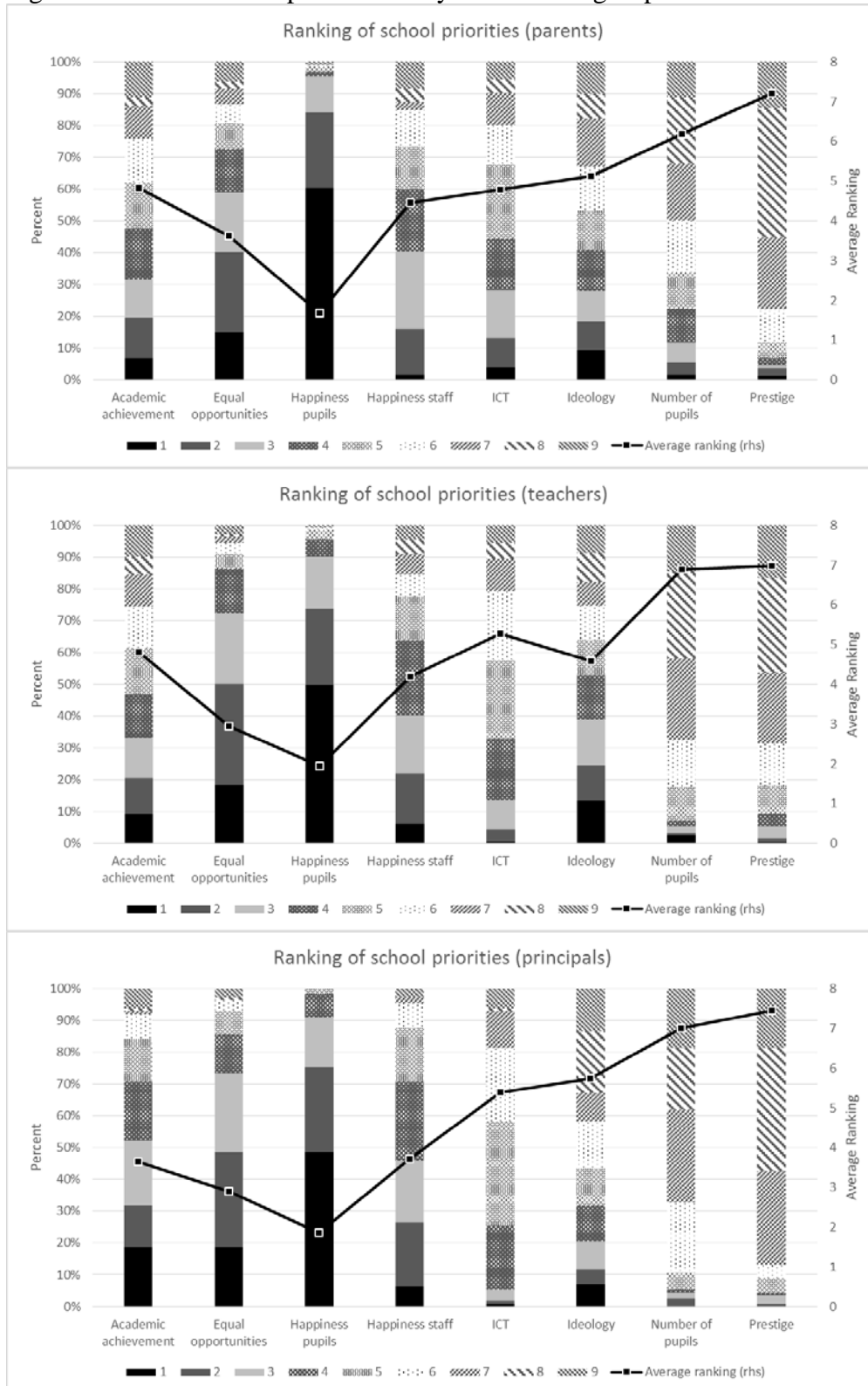
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Figure 1: Distribution of preferences regarding school priorities



Source: Histogram blocks represent the share of respondents awarding a given school attribute a certain rank (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all; left-hand scale). The full line depicts the average rank of each school attribute (right-hand scale).

Figure 2: Distribution of preferences by stakeholder group



Source: Histogram blocks represent the share of respondents awarding a given school attribute a certain rank (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all; left-hand scale). The full line depicts the average rank of each school attribute (right-hand scale). The top panel only includes parents, the middle panel teachers and the bottom panel principals.

Table 1: Determinants of preferences for school priorities

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
<i>Intercept</i>	5.055 *** (0.454)	5.465 *** (0.62)	3.340 *** (0.393)	5.385 *** (0.487)	6.870 *** (0.321)	4.052 *** (0.397)	1.735 *** (0.232)	5.544 *** (0.352)
<i>H1: Role in school</i>								
Parent				Reference category				
Teacher	0.166 (0.214)	0.751 *** (0.170)	-0.758 *** (0.185)	-0.668 *** (0.229)	-0.108 (0.151)	-0.110 (0.186)	0.190 * (0.109)	0.551 *** (0.165)
Director	-0.850 *** (0.286)	0.734 *** (0.228)	-0.723 *** (0.248)	-0.497 (0.307)	0.365 * (0.202)	-0.699 *** (0.250)	0.078 (0.147)	0.775 *** (0.222)
<i>H2: Female</i>	0.283 (0.196)	0.316 ** (0.156)	0.106 (0.169)	0.042 (0.210)	0.307 ** (0.138)	0.007 (0.171)	-0.087 (0.100)	0.206 (0.152)
<i>H3: Age</i>								
<31 years				Reference category				
31-40 years	0.671 ** (0.327)	-0.072 (0.260)	-0.305 (0.283)	-0.699 ** (0.350)	0.358 (0.230)	0.086 (0.285)	0.104 (0.167)	0.025 (0.253)
41-50 years	0.349 (0.330)	0.197 (0.263)	-0.239 (0.285)	-0.581 * (0.354)	0.216 (0.233)	0.244 (0.288)	0.086 (0.169)	-0.207 (0.256)
>50 years	0.257 (0.339)	0.185 (0.269)	-0.416 (0.293)	-0.475 (0.363)	0.307 (0.239)	-0.092 (0.296)	0.317 * (0.173)	-0.100 (0.262)
<i>H4: Degree</i>								
Lower/secondary education				Reference category				
College education	-0.821 *** (0.292)	0.531 ** (0.233)	0.386 (0.253)	-0.047 (0.313)	0.024 (0.206)	-0.182 (0.255)	-0.321 ** (0.149)	-0.449 * (0.226)
University education	-1.150 *** (0.320)	0.767 *** (0.254)	-0.033 (0.276)	0.208 (0.342)	0.057 (0.225)	0.402 (0.279)	-0.388 ** (0.163)	-0.250 (0.247)
<i>Secondary school</i>	-0.279 (0.184)	-0.165 (0.146)	0.129 (0.160)	0.408 ** (0.197)	-0.335 *** (0.129)	0.160 (0.161)	0.383 *** (0.094)	-0.322 ** (0.142)
<i>Tablet owner</i>	-0.029 (0.182)	-0.106 (0.145)	0.211 (0.157)	0.180 (0.195)	-0.157 (0.128)	0.243 (0.159)	0.092 (0.093)	-0.561 *** (0.141)
R ²	6.95	6.03	4.31	4.03	3.51	4.13	5.29	5.76

Note: N=731; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all); coefficient estimates derive from a multivariate regression model estimated using Stata 13; standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%.

Online Appendix to

What Do We Value Most In Schools?

A Study of Preference Rankings of School Attributes

Mamdouh Hassan and Benny Geys

Social Science Quarterly

This online appendix provides a number of additional results in support of our analysis. First, figure X.1 presents a screenshot of the central preference question, which aims to better clarify the approach taken in our data collection.

While the main text presents results using a linear multivariate regression approach, ordered logit regressions may be a better way to deal with the ordered nature of our response variable. Table X.1 therefore provides results from independently estimated ordered logit regressions. In Table X.2, we more explicitly control for heteroscedasticity by re-estimating all models independently with Huber-White heteroskedasticity-consistent standard errors. In Table X.3, we exclude all respondents with incomplete preference rankings, which may be important if respondents do not have sufficient information about the attributes to rank them against the others (and would have true preferences different from those expressed in the expressed/stated ranking). Finally, Tables X.4 to X.6 provide results when running the linear multivariate regression analysis individually for the three sets of stakeholders.

Figure X.1 Screen shot central preference question (in Dutch)

Survey Ouders

0% 100%

Wat zijn volgens uw mening de belangrijkste doelstellingen en prioriteiten van een school voor secundair onderwijs?

Dubbeklik of klik-en-sleep items van de linkerlijst naar de rechterlijst. De volgorde in de rechterlijst is op afnemende belangrijkheid.

Uw keuzes	Uw rangschikking
Aantal leerlingen in de school	
Kansengelijkheid voor alle leerlingen in de school	
Moderne technologische infrastructuur (ICT, smartboard, etc.)	
Leerlingen onderwijzen vanuit een welbepaalde levensbeschouwing of ideologie	
Schoolrendement (bvb. minimaal aantal zittenblijvers, maximale doorstroming naar hoger onderwijs,...)	
Prestige of aanzien van de school bij ouders, media, lokale bevolking,...	
Tevredenheid en welzijn van de leerlingen	
Tevredenheid en welzijn van het personeel (monetair en niet-monetair)	

Table X.1: Determinants of preferences for school priorities (ordered logit results)

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
H1: Role in school								
Parent				Reference category				
Teacher	0.130 (0.162)	0.673 *** (0.166)	-0.585 *** (0.165)	-0.485 *** (0.162)	-0.181 (0.168)	-0.103 (0.165)	0.410 ** (0.183)	0.524 *** (0.167)
Director	-0.654 *** (0.217)	0.602 *** (0.214)	-0.517 ** (0.221)	0.338 (0.215)	0.338 (0.219)	-0.535 ** (0.215)	0.322 (0.240)	0.766 *** (0.214)
H2: Female								
	0.180 (0.147)	0.368 ** (0.148)	0.056 (0.153)	0.012 (0.151)	0.426 *** (0.151)	-0.117 (0.148)	-0.276 * (0.161)	0.187 (0.150)
H3: Age								
<31 years				Reference category				
31-40 years	0.560 ** (0.255)	-0.142 (0.247)	-0.251 (0.252)	-0.511 ** (0.247)	0.388 (0.256)	0.015 (0.249)	0.098 (0.273)	0.043 (0.250)
41-50 years	0.311 (0.259)	0.087 (0.252)	-0.178 (0.255)	-0.408 * (0.249)	0.273 (0.260)	0.100 (0.256)	0.210 (0.274)	-0.182 (0.254)
>50 years	0.228 (0.263)	0.213 (0.257)	-0.359 (0.262)	-0.308 (0.256)	0.393 (0.268)	-0.122 (0.259)	0.486 * (0.278)	-0.029 (0.255)
H4: Degree								
Lower/secondary education				Reference category				
College education	-0.629 *** (0.224)	0.364 (0.247)	0.427 * (0.234)	-0.024 (0.224)	0.005 (0.237)	-0.198 (0.228)	-0.680 *** (0.240)	-0.489 ** (0.241)
University education	-0.955 *** (0.247)	0.634 ** (0.267)	0.112 (0.255)	0.176 (0.244)	-0.090 (0.255)	0.289 (0.249)	-0.742 *** (0.264)	-0.336 (0.261)
Secondary school								
	-0.251 * (0.139)	-0.083 (0.141)	0.039 (0.144)	0.291 ** (0.140)	-0.282 * (0.144)	0.181 (0.140)	0.664 *** (0.155)	-0.307 ** (0.141)
Tablet owner								
	-0.055 (0.137)	-0.107 (0.140)	0.205 (0.140)	0.132 (0.139)	-0.128 (0.142)	0.162 (0.141)	0.082 (0.154)	-0.566 *** (0.141)
LR Chi ² (10)	57.10 ***	39.68 ***	25.15	30.95	26.37	26.26	50.60	43.50

Note: N=731; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all); coefficient estimates derive from independently estimated ordered logistic regression models using Stata 13; standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%.

Table X.2: Determinants of preferences for school priorities (independent OLS regressions with White/Huber standard errors)

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
<i>Intercept</i>	5.055 *** (0.457)	5.465 *** (0.402)	3.340 *** (0.401)	5.385 *** (0.499)	6.870 *** (0.334)	4.052 *** (0.383)	1.735 *** (0.222)	5.544 *** (0.37+)
<i>H1: Role in school</i>								
Parent				Reference category				
Teacher	0.166 (0.216)	0.751 *** (0.168)	-0.758 *** (0.182)	-0.668 *** (0.227)	-0.108 (0.157)	-0.110 (0.195)	0.190 (0.117)	0.551 *** (0.169)
Director	-0.850 *** (0.264)	0.734 *** (0.197)	-0.723 *** (0.229)	-0.497 * (0.297)	0.365 ** (0.183)	-0.699 *** (0.208)	0.078 (0.141)	0.775 *** (0.192)
<i>H2: Female</i>	0.283 (0.186)	0.316 ** (0.152)	0.106 (0.161)	0.042 (0.213)	0.307 ** (0.134)	0.007 (0.156)	-0.087 (0.098)	0.206 (0.148)
<i>H3: Age</i>								
<31 years				Reference category				
31-40 years	0.671 ** (0.340)	-0.072 (0.255)	-0.305 (0.281)	-0.699 ** (0.342)	0.358 (0.237)	0.086 (0.279)	0.104 (0.174)	0.025 (0.244)
41-50 years	0.349 (0.350)	0.197 (0.262)	-0.239 (0.287)	-0.581 * (0.345)	0.216 (0.247)	0.244 (0.294)	0.086 (0.173)	-0.207 (0.252)
>50 years	0.257 (0.351)	0.185 (0.271)	-0.416 (0.290)	-0.475 (0.354)	0.307 (0.256)	-0.092 (0.281)	0.317 * (0.186)	-0.100 (0.240)
<i>H4: Degree</i>								
Lower/secondary education				Reference category				
College education	-0.821 *** (0.300)	0.531 * (0.298)	0.386 (0.283)	-0.047 (0.315)	0.024 (0.227)	-0.182 (0.272)	-0.321 ** (0.163)	-0.449 * (0.264)
University education	-1.150 *** (0.330)	0.767 ** (0.318)	-0.033 (0.296)	0.208 (0.344)	0.057 (0.238)	0.402 (0.298)	-0.388 ** (0.166)	-0.250 (0.287)
<i>Secondary school</i>	-0.279 (0.180)	-0.165 (0.143)	0.129 (0.162)	0.408 ** (0.195)	-0.335 ** (0.137)	0.160 (0.157)	0.383 *** (0.090)	-0.322 ** (0.139)
<i>Tablet owner</i>	-0.029 (0.17)	-0.106 (0.142)	0.211 (0.156)	0.180 (0.198)	-0.157 (0.123)	0.243 (0.157)	0.092 (0.087)	-0.561 *** (0.141)
R ²	6.95	6.03	4.31	4.03	3.51	4.13	5.29	5.76

Note: N=731; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all); coefficient estimates derive from independently estimated OLS models using Stata 13; Huber/White heteroskedasticity-consistent standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%.

Table X.3: Results excluding respondents with incomplete preference rankings

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
<i>Intercept</i>	4.617 *** (0.415)	5.312 *** (0.350)	2.938 *** (0.359)	5.279 *** (0.471)	6.680 *** (0.319)	3.794 *** (0.372)	1.720 *** (0.227)	5.5659 *** (0.329)
<i>H1: Role in school</i>								
Parent				Reference category				
Teacher	0.180 (0.195)	0.551 *** (0.165)	-0.628 *** (0.169)	-0.587 *** (0.221)	-0.342 ** (0.149)	0.051 (0.175)	0.313 *** (0.107)	0.463 *** (0.154)
Director	-0.665 ** (0.259)	0.446 ** (0.218)	-0.682 *** (0.224)	-0.516 * (0.294)	0.196 (0.199)	-0.561 *** (0.232)	0.062 (0.142)	0.687 *** (0.205)
<i>H2: Female</i>	0.121 (0.174)	0.155 (0.150)	-0.030 (0.151)	-0.152 (0.198)	0.120 (0.134)	-0.217 (0.156)	-0.207 ** (0.095)	0.208 (0.138)
<i>H3: Age</i>								
<31 years				Reference category				
31-40 years	0.733 ** (0.298)	-0.285 (0.252)	-0.380 (0.258)	-0.575 * (0.339)	0.284 (0.229)	0.143 (0.267)	0.205 (0.163)	-0.126 (0.236)
41-50 years	0.430 (0.303)	-0.160 (0.255)	-0.218 (0.262)	-0.532 (0.344)	0.021 (0.233)	0.430 (0.271)	0.296 * (0.166)	-0.267 (0.240)
>50 years	0.322 (0.310)	-0.276 (0.261)	-0.362 (0.268)	-0.199 (0.352)	0.067 (0.238)	0.229 (0.278)	0.369 ** (0.170)	-0.152 (0.245)
<i>H4: Degree</i>								
Lower/secondary education				Reference category				
College education	-0.610 ** (0.275)	0.917 *** (0.232)	0.553 ** (0.237)	-0.270 (0.312)	0.353 * (0.211)	-0.082 (0.246)	-0.412 *** (0.150)	-0.448 ** (0.217)
University education	-1.212 *** (0.298)	1.114 *** (0.251)	0.391 (0.257)	0.070 (0.338)	0.307 (0.229)	0.222 (0.267)	-0.437 *** (0.163)	-0.454 * (0.235)
<i>Secondary school</i>	-0.115 (0.168)	-0.082 (0.142)	0.099 (0.145)	0.230 (0.191)	-0.363 *** (0.129)	0.185 (0.151)	0.338 *** (0.092)	-0.292 ** (0.133)
<i>Tablet owner</i>	-0.145 (0.167)	-0.020 (0.141)	0.427 *** (0.145)	0.235 (0.190)	-0.117 (0.128)	0.159 (0.150)	0.025 (0.092)	-0.563 *** (0.132)
R ²	8.07	7.01	5.18	5.11	5.11	3.27	7.54	7.27

Note: N=601; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority); coefficient estimates derive from independently estimated OLS models using Stata 13; standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%. Respondents with incomplete preference rankings have been excluded.

Table X.4: Determinants of preferences for school priorities (Parents)

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
<i>Intercept</i>	2.639 ** (1.333)	7.220 *** (1.174)	2.847 ** (1.314)	4.646 *** (1.441)	7.160 *** (0.969)	3.607 *** (1.240)	1.692 *** (0.678)	5.935 *** (1.134)
<i>H2: Female</i>	0.917 *** (0.326)	0.508 * (0.287)	0.308 (0.321)	-0.212 (0.352)	-0.171 (0.237)	0.236 (0.303)	-0.165 (0.166)	0.558 ** (0.277)
<i>H3: Age</i>				Reference category				
<31 years				0.585	0.432	0.273	0.088	-0.467
31-40 years	2.712 ** (1.339)	-2.238 * (1.179)	-0.326 (1.319)	(1.446)	(0.973)	(1.245)	(0.681)	(1.138)
41-50 years	2.195 (1.338)	-1.823 (1.179)	-0.122 (1.318)	0.626 (1.446)	0.441 (0.972)	0.321 (1.244)	0.023 (0.680)	-0.957 (1.138)
>50 years	2.255 (1.415)	-2.068 (1.246)	-0.924 (1.394)	0.356 (1.528)	0.457 (1.028)	-0.321 (1.315)	0.584 (0.720)	-0.609 (1.203)
<i>H4: Degree</i>				Reference category				
Lower/secondary education				-0.572	0.002	-0.278	-0.016	-0.222
College education	-0.923 ** (0.367)	0.497 (0.323)	0.810 ** (0.362)	(0.397)	(0.267)	(0.341)	(0.187)	(0.312)
University education	-0.884 ** (0.399)	1.120 *** (0.352)	0.020 (0.394)	-0.205 (0.432)	0.257 (0.291)	0.154 (0.372)	-0.328 (0.203)	0.293 (0.340)
<i>Secondary school</i>	-0.424 (0.291)	0.180 (0.256)	-0.132 (0.286)	0.362 (0.314)	-0.383 * (0.211)	0.511 * (0.270)	0.162 (0.148)	-0.560 ** (0.247)
<i>Tablet owner</i>	0.012 (0.285)	-0.164 (0.251)	0.532 * (0.281)	0.418 (0.308)	-0.312 (0.207)	0.501 * (0.265)	0.121 (0.145)	-0.920 *** (0.243)
R ²	8.08	6.94	5.83	2.20	2.51	3.72	3.94	10.58

Note: N=302; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all); coefficient estimates derive from a multivariate regression model estimated using Stata 13; standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%.

Table X.5: Determinants of preferences for school priorities (Teachers)

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
<i>Intercept</i>	5.018 *** (0.663)	6.502 *** (0.481)	3.334 *** (0.510)	3.109 *** (0.682)	6.240 *** (0.463)	4.489 *** (0.563)	2.354 *** (0.343)	6.108 *** (0.474)
<i>H2: Female</i>	0.095 (0.316)	0.105 (0.229)	0.071 (0.243)	0.757 ** (0.325)	0.780 *** (0.221)	-0.349 (0.269)	-0.095 (0.163)	0.103 (0.226)
<i>H3: Age</i>				Reference category				
<31 years								
31-40 years	0.502 (0.376)	0.146 (0.273)	-0.345 (0.289)	-0.768 ** (0.387)	0.523 ** (0.263)	-0.060 (0.320)	0.093 (0.195)	-0.135 (0.269)
41-50 years	0.415 (0.408)	0.073 (0.296)	-0.319 (0.314)	-0.523 (0.420)	0.264 (0.284)	0.436 (0.347)	0.213 (0.211)	0.079 (0.292)
>50 years	0.051 (0.386)	0.257 (0.280)	-0.298 (0.297)	-0.452 (0.397)	0.153 (0.269)	-0.200 (0.328)	0.285 (0.200)	-0.120 (0.276)
<i>H4: Degree</i>				Reference category				
Lower/secondary education								
College education	-0.396 (0.519)	0.436 (0.376)	-0.326 (0.399)	0.904 * (0.534)	0.047 (0.362)	-0.071 (0.442)	-0.794 *** (0.268)	-0.626 * (0.371)
University education	-1.414 ** (0.594)	0.559 (0.430)	-0.505 (0.457)	1.091 * (0.611)	-0.228 (0.415)	0.976 * (0.505)	-0.619 ** (0.307)	-0.930 ** (0.425)
<i>Secondary school</i>	0.073 (0.311)	-0.399 * (0.226)	0.179 (0.239)	1.004 *** (0.320)	0.015 (0.217)	-0.523 ** (0.265)	0.465 *** (0.161)	-0.125 (0.223)
<i>Tablet owner</i>	0.053 (0.285)	-0.034 (0.207)	0.078 (0.219)	0.017 (0.293)	-0.153 (0.199)	0.129 (0.243)	-0.054 (0.147)	-0.230 (0.204)
R ²	3.75	2.25	1.14	7.25	6.08	4.88	8.36	2.78

Note: N=319; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all); coefficient estimates derive from a multivariate regression model estimated using Stata 13; standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%.

Table X.6: Determinants of preferences for school priorities (Principals)

	Academic achievement	Number of pupils	Equal opportunities	Ideology	Prestige	Happiness Staff	Happiness Pupils	ICT
<i>Intercept</i>	4.045 *** (0.861)	6.999 *** (0.651)	3.501 *** (0.674)	6.048 *** (0.995)	7.553 *** (0.555)	3.305 *** (0.637)	0.986 *** (0.419)	5.837 *** (0.599)
<i>H2: Female</i>	-0.310 (0.411)	0.230 (0.310)	0.066 (0.321)	-0.823 * (0.475)	0.262 (0.265)	-0.011 (0.304)	0.256 (0.200)	0.153 (0.285)
<i>H3: Age</i>				Reference category				
<31 years	-	-	-	-	-	-	-	-
31-40 years	0.358 (0.778)	-0.103 (0.588)	-0.472 (0.609)	0.230 (0.899)	-0.284 (0.501)	-0.482 (0.575)	0.231 (0.379)	-0.065 (0.541)
41-50 years	0.342 (0.757)	0.074 (0.572)	-0.453 (0.593)	0.287 (0.875)	0.353 (0.488)	-0.228 (0.560)	0.439 (0.369)	0.025 (0.526)
<i>H4: Degree</i>				Reference category				
Lower/secondary education	-	-	-	-	-	-	-	-
College education	-0.091 (0.178)	-0.070 (0.135)	-0.045 (0.140)	-0.012 (0.206)	-0.075 (0.115)	0.089 (0.132)	-0.067 (0.087)	-0.047 (0.124)
University education	-0.591 (0.513)	-0.222 (0.387)	0.139 (0.401)	-0.178 (0.592)	-0.454 (0.331)	0.879 ** (0.379)	0.558 ** (0.250)	0.257 (0.356)
<i>Secondary school</i>	-0.358 (0.441)	0.084 (0.333)	-0.437 (0.345)	-0.066 (0.509)	-0.053 (0.284)	0.265 (0.326)	0.373 * (0.215)	-0.619 ** (0.306)
<i>Tablet owner</i>								
R ²	4.94	2.41	2.38	3.26	9.93	13.27	10.09	4.80

Note: N=110; dependent variables reflect the preference rank respondents awarded to the school attribute under evaluation (between 1 for highest priority and 8 for lowest priority; with value 9 if respondents did not rank the option at all); coefficient estimates derive from a multivariate regression model estimated using Stata 13; standard errors between brackets. *** is statistically significant at 1%, ** at 5%, * at 10%.