School Socioeconomic Status Context and Social Skills in Children

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Abstract

As researchers and policymakers try to understand the consequences of SES for educational 20 and occupational attainment, they increasingly consider social skills to be critical. Yet little 21 research has considered how the school socio-economic context may differentially promote or 22 hinder social skill development. In a representative longitudinal sample of Australian 8-year 23 olds, we tested the association between school average socioeconomic status and social skills as reported by parents and teachers. All models controlled for prior social skills at age 4, and 25 additional school and student covariates. We found that school context was associated with 26 social skill assimilation: controlling for individual socioeconomic status, children in more 27 advantaged schools had more prosocial behavior and fewer peer and conduct problems. We 28 found a consistent interaction between individual and school average socioeconomic status that suggested assimilation effects were only present for children from low socioeconomic backgrounds. We found that children from low socioeconomic backgrounds enter school with lower average social skills. They are more likely to be enrolled in more disadvantaged schools. Finally, the social skills of children from low socioeconomic backgrounds worsen in low SES contexts. Taking the evidence together, social stratified schools may harm children from low SES backgrounds while not benefiting children from high SES backgrounds.

Keywords: social skills; assimilation effects; socioeconomic status; school context

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After decades of research and intervention aimed at reducing educational and 39 occupational inequality, inequalities persist (Reardon, 2011). In response to this bleak 40 picture, there has been a flurry of interest in social-emotional competencies driven by the 41 research of Nobel prize-winning economist James Heckman. Heckman (2006) argues that research and intervention on reducing educational inequality have focused too narrowly on "cognitive" abilities (generally narrowly deinfed to include ability, IQ, and academic achievement). Yet cognitive abilities are not the only pathway through which low socioeconomic status may stifle educational and occupational attainment. For example, social skills are a potentially powerful explanation for socioeconomic status gaps in educational and occupational attainment (Gutman & Schoon, 2013). Children from low socioeconomic backgrounds (here after low SES children¹) appear to enter school with poorer social skills (e.g., Jerrim & Sims, 2019). This is concerning as childhood social skills predict a wide variety of later life outcomes (e.g., Jones, Greenberg, & Crowley, 2015). Inspired by 51 identity economics, our research asks whether the school context in the stratified school 52 system of Australia may exacerbate this issue. In particular, we explore whether school 53 average socioeconomic status predicts social skills in Year 3 (age 8)—using measures of peer problems, conduct problems, and prosocial behavior. Using prospective representative data, 55 integrated with government administrative data, we found this is that case but that an interaction between student and school SES means that poorer children appear more susceptible to such effects.

¹ We acknowledge that children themselves do not have a socioeconomic status. Rather they are raised in an environment which is shaped by their parents' socioeconomic status (SES). However, for brevity we refer to children as low SES or high SES hereafter. Likewise, in place of low school average SES and high school average SES we refer to disadvantaged and advantaged schools respectively.

59 Social Skills

Of the skills that employers are looking for when hiring candidates, social skills are 60 some of the most desirable (Rios, Ling, Pugh, Becker, & Bacall, 2020). Social skills also seem 61 to be a viable target for intervention with meta-analysis showing social and emotional learning programs have moderate effects on improving key social skills like reducing conduct problems and improving social-emotional learning skills and prosocial behavior (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Social skills appear to be worthwhile targets from a societal perspective given their relationship to academic achievement (Corcoran, Cheung, Kim, & Xie, 2018) and their role in predicting adult employment, crime, 67 public assistance, substance abuse, and mental health (Jones et al., 2015). Among young children, it is increasingly common to focus on social skills as measured by the Strengths and Difficulties Questionnaire (see Datta Gupta & Simonsen, 2010; Gutman & Schoon, 2013; Jerrim & Sims, 2019). We use this questionnaire to measure peer problems, conduct problems, and prosocial behavior. We model social skills using both parent and teacher reports. Measures of SES at the student level are taken from in-person interviews with parents and school SES (as well as student achievement) is taken from government administrative records.

76 Contrast Processes and Identity Economics

Children's social skills depend in part on the context in which they develop (Jerrim & Sims, 2019). There are two major forces in social psychology—assimilation and contrast (Mussweiler, Rüter, & Epstude, 2004)—that may account for how school context affects children's social skill development. Contrast processes are in operation when children's perceptions, opinions, or behavior depend on their perceived rank order within their group. Assimilation processes are in operation when people's perceptions, opinions, or behaviour depend on reference group norms (Kelley, 1952).

The theory of *Identity Economics* implies an assimilative effect (Akerlof & Kranton,

that attracts students' identity, values, and behavior toward the prototypical identity, values, and behavior of the school (Akerlof & Kranton, 2002). School ethos and norms around behavior incentivize children to act in a manner consistent with these norms. School average socioeconomic status could, thus, affect social skills. A now large body of research shows that social skills are correlated with socioeconomic status (SES; de Laat, Essink-Bot, van Wassenaer-Leemhuis, & Vrijkotte, 2016; Garratt, Chandola, Purdam, & Wood, 2017; McMunn, Nazroo, Marmot, Boreham, & Goodman, 2001; Rajmil et al., 2014) and, this relationship is present before children enter school (Washbrook & Waldfogel, 2011). In socially stratified school systems, children of similar SES tend to be schooled together. Thus, if children assimilate to the school context they are in, as Identity Economics would suggest, we would expect school average socioeconomic status to influence the development of social skills.

Jerrim and colleagues (2019) provide one test of the potential assimilative effect of 98 schools on social skills. They found that living in an area with selective schools is associated with better social skills when compared to children living in districts without a selective 100 school. They also found some assimilative effects of school average SES predicting social 101 skills using the total score of the strengths and difficulties questionnaire (SDQ). The 102 assimilation effects they found, however, were weak. This may be because the authors used 103 the SDQ total score—which includes a range of social and emotional behaviors—rather than focusing on specific social skill components of the SDQ. Further, assimilative effects may be non-linear. Put another way, the assimilative power of school contexts may not be evenly 106 distributed across the socioeconomic distribution. This is an important consideration that 107 research has not hitherto considered, though differential assimilation across the 108 socioeconomic status gradient has been theorized (Gradstein & Justman, 2005). 109

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Current Study

Australia is the context of our research. Australia is a useful country to focus on 111 because Australia's Programme for International Student Assessment (PISA) Index of Social 112 Inclusion score is relatively low (OECD, 2015). This means that Australian schools are 113 socially stratified (Parker, Guo, & Sanders, 2019; Parker et al., 2018). Our major hypothesis 114 is that school average socioeconomic status will have an assimilation effect on association 115 with social skills at Year 3 (age 8) controlling for incoming social skills (age 4), individual 116 socioeconomic status (age 4) and a range of demographic and achievement covariates². We 117 also anticipate that there will be differential associations of school average socioeconomic 118 status on social skills across the socioeconomic status gradient. 119

We expect the assimilation effects to occur in the context of low SES children entering school with poorer social skills (de Laat et al., 2016; Garratt et al., 2017; McMunn et al., 2001; Rajmil et al., 2014). Given Australian schools are socially stratified (OECD, 2015; Parker et al., 2018), we expect low SES children to attend more disadvantaged schools on average.

125 Method

Participants and Study Design

We use data for children, their parents, and their teachers from the B-Cohort and
K-Cohort of the Longitudinal Study of Australian Children (LSAC). LSAC is a
government-run study of a representative sample of Australian children who were zero-one
(B-cohort) or four-five (K-Cohort) years of age in 2004. Both cohorts of children have been

² This assimilation effect will be indicated by a negative coefficient for peer problems and conduct problems regressed on school average socioeconomic status and a positive coefficient for prosocial behavior regressed on school average socioeconomic status. This is because of the way in which these factors are valanced (high scores indicate high levels of prosocial behavior, but also high levels of peer and conduct problems).

followed every two years since (AIFS, 2015). LSAC includes linked administration records for student performance in a standardized national numeracy test. We also use government 132 collected data on school average socioeconomic status. Many children in the sample were the 133 only child surveyed (25.75%) or were one of two children surveyed (20.96%) in their school. 134 By using administrative records, we gain school average socioeconomic status based on the 135 child's whole school grade from a high-quality source, thus avoiding sampling bias present in 136 much school context research. We excluded participants who were not in school (e.g., were 137 home schooled, or were otherwise missing an identifier of which school they attended), were 138 not in Year 3 at the time of testing, or were not eligible to complete national standardized 139 testing (e.g., children with an intellectual disability). Together our total sample was 5440 140 (52.08% boys) children in Year 3 at school (~age 8). In the vast majority of cases (98%), 141 parent data came from mothers. A participant flow diagram is presented in Figure 1 including the number of participants excluded because there were a) not in Year 3 during the age 8 LSAC data collection sweep; b) were not eligible to participate NAPLAN (e.g., due to intellectual disability; or c) were not enrolled in school (e.g., were home schooled).

146 Measures

Social skills at age 4 and 8. Social skills were estimated using the peer problems, 147 conduct problems, and prosocial behavior component scores from the SDQ (Goodman, 1997). 148 We explored social skills at age 4-5 (for prior social skills; parent report only) and age 8-9 (as 149 primary outcomes) as reported by the child's parent and the child's teacher. The SDQ asks 150 respondents to rate a child's behavior in the last six months on a 3-point scale (not true, somewhat true, and certainly true). Questions ask about the child's peer problems ("Rather solitary, tends to play alone"), conduct problems ("Often fights with other children or bullies 153 them"), and prosociality ("Is kind to younger children"). Greatest lower bound estimates of 154 reliability were all greater than .95 and parallel analysis suggested that a single component 155 was sufficient for each of the parent and teacher and age 4 and age 8 social skills factors. On 156

the basis of this evidence, we used the total scores for these scales as developed by the LSAC 157 administrators. Scores ranged from 0 to 10. These scores were heavily left censored for peer 158 and conduct problems with a preponderance of students being scored as a zero by their 159 parent or teacher. Prosocial behaviors were heavily right censored. Censoring can be viewed 160 as a special type of missing data where scores on y* (the hypothesised true latent 161 distribution of the variable) below or above the bounds are curtailed to fit within the bounds 162 resulting in the observed scores y (Gelman, Hill, & Vehtari, 2020). Models accounting for 163 this censoring were used in all cases with results provided on the scale of the latent variable 164 y* believed to underlie the censored variable (hence negative predicted scores or scores over 165 10 were possible). 166

Parents and teachers had moderate agreement for children at age 8 with correlations ranging from r = 0.41 95% CI[0.38, 0.43] for peer and r = 0.4 95% CI[0.37, 0.42] for conduct problems to r = 0.29 95% CI[0.26, 0.31] for prosocial behavior.

Socioeconomic Status. Individual SES was measured using the Socioeconomic
Position (SEP) index constructed by the LSAC survey organizers (Baker, Sipthorp, &
Edwards, 2017). The SEP index is constructed from parent reported standardized weekly
income, years of education, and ANU4 occupational prestige derived from the Australian
Standard Classification of Occupations. The SEP has a mean of zero and a standard
deviation of one.

School average SES was measured using the Index of Community Socioeconomic

Advantage (ICSEA) that the Australian government uses to assess the relative advantage of

schools for the purpose of funding allocation and policy. This measure was taken from

government administration records. ICSEA has a mean of 1000 and a standard deviation of

100. We z-scored this variable for analysis.

Covariates. Numeracy for the child and for their complete school grade was taken from administration records of National Assessment Program – Literacy and Numeracy

(NAPLAN) test results. The relevant NAPLAN tests for this study are given to all eligible 183 children in the country in Year 3 (age 8). The tests are scaled so they are comparable across 184 age cohort and across year grade. These high-stakes tests have a mean of 500 and a standard 185 deviation of 100. Included in the analysis was the first principal component of the numeracy, 186 grammar, spelling, reading, and writing scores from NAPLAN³. For verbal ability (as a 187 proxy for cognitive school readiness) we used the Peabody Picture Vocabulary test (Dunn & 188 Dunn. 2007) given to participants at age 4 (i.e., at or just before school commencement). 189 Cohort was included as a covariate in all models as was measures of rural status and 190 gender—all measured at age 4. The sector (government or non-government) of the school the 191 child attended was also included as a covariate. 192

193 Analysis

There was a relatively small amount of missing data for most variables. However, given 194 the data were longitudinal and included both linked administrative records and data 195 collected from both the child's teacher and parent, missing data was inevitable. Attrition was 196 offset by applying combined sample and attrition weights constructed for the age 8 sample. 197 Remaining missing data was small with the largest missing data proportion for teacher 198 reported social skills at 14%. All other variables had 6% missing data or less (see code book 199 in supplementary materials). To account for this, we constructed five imputed datasets using 200 a bootstrapped expectation maximization procedure from the Amelia II package (Honaker, 201 King, & Blackwell, 2011). These imputations were used in all analyses. All analyses were 202 done using Bayes via the BRMS package in R (Bürkner, 2017). The Bayes models were run 203 once for each imputation and then the resulting posterior samples were pooled before 204 estimates and their uncertainty were extracted. Interactions and their associated 205 uncertainties were plotted by taking marginal effect estimates from a random 500 posterior 206

³ Parallel analysis suggested a single principal component was sufficient to account for the variation in the NAPLAN scores.

draws for disadvantaged (two standard deviations below the mean of SES), average, and advantaged (two standard deviations above the mean of SES) students (Gelman et al., 2020).

All models in the paper that predicted social skills were estimated taking into account 209 the censoring of the social skills means using a Bayes version of Tobit regression. Tobit models can be used when seeking to model outcome variables that are censored on the left, 211 right, or both tails (see Kleiber & Zeileis, 2008). As scores on the social skills variables have 212 both a floor of zero and a ceiling of 10, we included censoring on both the left and the right 213 in all models. The multilevel nature of the data (children nested within schools) was 214 addressed by the inclusion of a random intercept for schools. We clearly demarcate the units 215 of analysis in tables and figures. In general the SDQ measures are retained on the original 216 scale and all other continuous variables are z-scored. We retain the SDQ scores on the 217 original scale because of the presence of norms (Youth in Mind, 2016). Peer and conduct 218 problems scores of 3 or greater and prosocial scores of 7 or lower place children beyond the 219 'close to average' group and may thus be a potential concern (Youth in Mind, 2016). 220

The models are fit using the following formula:

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$$y_i^* \sim N(\alpha_{j[i]} + X_i\beta, \sigma_y^2), for \ i = 1, ..., n$$

$$\alpha_j \sim N(U_j\gamma, \sigma_\alpha^2), for \ j = 1, ...k$$

Here X is a matrix of individual level predictors for student i including individual SES, prior social skills, gender, cohort, geographic location, and an NAPLAN achievement index. Prior social skills is particularly critical as this provide stronger conclusions that school context rather than selection effects account for the influence of school average SES on student social skills. Put simply the estimate of school average achievement can be interpreted as the influence of school context on the change in children's social skills from age 4 to age 8. U is a matrix of school level predictors for school j including school section and the aforementioned critical variable school SES. Note that we predict y_i^* which is the latent continuous variable underlying the observed variables which are defined as:

$$y_i = \begin{cases} y *_i & \text{if } y *_i < 0 \text{ or } y *_i > 10 \\ 0 & \text{if } y *_i < 0 \\ 10 & \text{if } y *_i > 10 \end{cases}$$

231 Results

Low SES Children Start School with Poorer Social Skills and Enroll in More Disadvantaged Schools

In order to provide a context for the main analyses we first aimed to show: a) that
children from advantaged backgrounds enter school with better social skills (as measured by
their parents) and b) that children in Australia tend to be schooled in socially stratified
schools. Student SES is slightly correlated with prosocial behaviour (0.05 95% CI[0.023,
0.078]) but more strongly and negatively correlated with conduct (-0.18 95% CI[-0.2, -0.15])
and peer (-0.16 95% CI[-0.19, -0.13]) problems. Children from lower SES backgrounds also
tended to enter schools with children from similar backgrounds (0.48 95% CI[0.46, 0.51]).

School Average SES Predicts Social Skills Controlling for Age 4 SES and Social Skills

We next predicted social skills with school average SES controlling for individual SES, a range of demographic covariates and academic performance measures, and social skills at age 4. Results for school average SES are presented under in Table ?? (the full model results are in supplementary materials). Because we control for prior social skills, the effects of school average SES in these models can be interpreted as predicting change or development in social skills from age 4 (at or just prior to school enrollment) to age 8 (Year 3). School ²⁴⁹ average SES negatively predicted conduct problems and positively predicted prosocial
²⁵⁰ behavior for both parent and teacher reported social skills. School average SES also
²⁵¹ negatively predicted peer problems. Results from either teacher or parent provided fairly
²⁵² consistent evidence of the influence of school SES context on social skills (or more specifically
²⁵³ change in social skills from age 4 to age 8). Interestingly, the association of school average
²⁵⁴ SES with social skills was similar in strength to the association of individual SES with social
²⁵⁵ skills (see supplementary materials for full results). The effect sizes were equivalent to
²⁵⁶ approximately a 10th of the median absolute deviation in social skills.

257 School Average SES Predicts Social Skills Mainly in Low SES Children

The predictive association of school average SES on social skills was not consistent across the SES gradient (see Table ??). Significant school average SES by student SES 259 interactions were significant for peer and conduct problems for both teacher and parent 260 reports and for teacher reported prosocial behavior. Interactions are plotted in Figures 3-4. 261 Full model results can be found in supplementary materials. The interaction plots suggest 262 that school context effects were particularly potent for disadvantaged children but school 263 context had minimal impact on social skills for children from advantaged backgrounds. The 264 plots suggest that for the very poorest schools in our sample, the average disadvantaged 265 student would have levels of peer problems greater than the threshold for 'close to average' 266 scores and thus potentially of concern (Youth in Mind, 2016). This same child would be well 267 within the 'close to average' band in a school with an average levels of SES. 268

269 Discussion

Research on social skills has repeatedly shown that there is a socioeconomic status gradient to social skills (see Datta Gupta & Simonsen, 2010; Gutman & Schoon, 2013;

Jerrim & Sims, 2019). Yet little research in this area has considered the potential influence of school context on social skill development (cf. Jerrim & Sims, 2019). This is a gap that our research sought to fill. Our research considered the association of school socioeconomic

context with social skills in early elementary school. We used both parent and teacher reported social skills, finding surprisingly consistent effect sizes regardless of reporting source despite their relatively modest agreement. Importantly, our research used a number of critical controls as well as prior social skills that helped us better identify the effect of school average socioeconomic status. Prior social skills meant that coefficients for school average SES related to change in social skills from age 4 (at or just before school entry) to age 8.

For both teacher and parent reports we found that the association of school context with social skills depended on the individual child's own socioeconomic background. This was the case for all outcomes except for parent reported prosocial behavior. It is worth emphasizing that the nature of these interactions was consistent for all outcomes. Namely, that middle to high SES children were largely unaffected by school socioeconomic context while the children with the lowest socioeconomic status experienced the largest effect.

287 School Context Theory

A greater focus on social skills as explanations for socioeconomic gaps in educational 288 attainment has been an important step forward in inequality research (see Heckman, 2006). 280 Now that research and theory has illuminated the importance of such skills, research needs 290 to consider the conditions under which they develop. Previous economic theory has 291 emphasized the role that schools play as a context for the development of non-academic 292 factors like social skills and claimed this as one of the ways in which intergenerational 293 inequality is transmitted (Bowles & Gintis, 1976). Such theory has tended to emphasize the 294 role of teachers and systems, relegating students' fellow classmates to a more secondary role. In contrast, psychology research has tended to emphasize the role of frames-of-reference with particular emphasize given to the role of a child's peers as providing a standard against which a child might assimilate to or contrast against (Mussweiler et al., 2004). It seems likely that both economic and psychology theory is right to some extent but the relative 290 contribution to school context effects of system, teacher, and peers is unclear. Our research 300

shows that school context effects are significant and mainly seem to effect low SES children.

Future research is needed to determine what the most important mechanisms are that

explain this effect.

School Context and Assimilation Effects

For children with SES status below the mean, school socioeconomic context had 305 statistically significant associations with social skills in Year 3 (controlling for social skills at 306 age 4). The implications of this are mixed. Our results do suggest that a low SES child who 307 is enrolled in an advantaged school should expect to have similar levels of social skills as 308 their high SES peers. The problem is that in countries like Australia low SES children are 309 considerably less likely to be enrolled in advantaged schools. As we noted in the introduction 310 Australia has relatively low levels of social inclusion as measured by PISA (OECD, 2015). 311 This means that Australian schools tend to be homogenous in terms of their student 312 composition (see Parker et al., 2019). As our results show low SES children tend to attend 313 disadvantaged schools and their social skills appear to suffer as a result. What our findings 314 suggest is that children's social skills, particularly low SES children, acclimatize toward the 315 average of the school they are in. Consistent with the literature we found that low SES 316 children start school with lower social skills. In a country like Australia, whose schools are 317 socially stratified, low SES children will tend to be schooled in more disadvantaged schools. 318 The net effect in such a system is that low SES children will tend to have their already lower 319 starting school social skills further depressed by the school climate they are most likely to find themselves in.

This counterfactual may suggest that school choice, in which low SES children receive vouchers or similar, may be beneficial (see Friedman, 1962). Strategies like school vouchers to attend magnet schools could be a powerful policy lever to overcome socioeconomic gaps in social skills. This approach tackles the problem of assimilative contextual effects via market-based systems. Yet this policy requires there to be few barriers, whether

psychological or otherwise, to parents using vouchers to select the best school that matches
the needs of their child. But this does not seem to be the case (Gradstein & Justman, 2005).

Indeed, empirical evidence suggests that school choice tends to exacerbate inequality (e.g.,
Saporito, 2003).

Parker et al. (2019, 2018; 2016; 2018) have suggested that empirical evidence shows 331 greater school choice at the country level is related to poorer average ability levels, lower 332 aspirations, and paradoxical effects on psychological factors like motivation and self-concept 333 that appears to have negative consequences for all children. They argue that empirical 334 evidence suggests policy should encourage school selection policies that maximize within 335 school heterogeneity. This would require considerable state intervention to achieve and may 336 thus impose unreasonable restrictions on parents' rights to choose. However, it is worth 337 noting that high SES children appear to not suffer to any notable degree, in relation to social 338 skills, by being enrolled in a more disadvantaged school. 339

There are strong arguments and good empirical support on both sides of this debate,
suggesting that we are far from a settled position on the matter. At least for the current
context in Australia where social stratification is moderately high and where the school
system seems to ensure school choice is more clearly an option for the rich than the poor
(Parker et al., 2019), our results are troubling. In particular, they suggest low SES children
face a triple bind. First, they enter school with lower social skills. Second, they enter schools
where assimilation effects are likely to further dampen social skill development. Third, they
appear particularly vulnerable to their school context in this respect.

8 Limitations

There are many strengths to this study. Most notably, the use of longitudinal data that allowed for us to control for incoming social skills and government administrative data that provided access to complete and high-quality data for school average socioeconomic status at

the school level. Further the use of LSAC data meant that we were able to control for a number of potential confounding variables drawn from a longitudinal representative sample 353 of Australian children. Nevertheless, there are limitations. Our aim was to try to build a 354 model from high-quality data that could assist us in making as close to an all else being equal 355 comparisons as possible (Angrist & Pischke, 2008). It is for this reason we have cautiously 356 used causal language in relation to our claims. But our claim to causality would have been 357 stronger had they been backed by an experimental design. While the Move to Opportunity 358 program in the US suggest experiments where low SES children are randomly assigned to 359 richer schools (or at least randomly assigned to areas with richer schools) are possible (see de 360 Souza Briggs, Popkin, & Goering, 2010), it is hard to imagine a situation in which richer 361 children could be randomly assigned to more disadvantaged schools. Given the non-linearity 362 in effects we observed this would be a serious limitation of an experimental design.

Finally, we were not able to identify and compare the relative impact of different mechanisms that may explain the influence of school average socioeconomic status on social skills. As educational psychologists our study is framed in relation to assimilation effects in response to children's peer frames-of-reference. Yet, economic theory tends to emphasize the socialization influence of teachers and educational structures [see @bowles2001]. Identifying and comparing these mechanisms is an important future direction for research.

370 Conclusion

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The influence of school average socioeconomic status on social skills represent the triple disadvantage that low SES children can face in social stratified school systems. First, low SES children are more likely to start school with lower social skills than their high SES peers. Second, because the school system is stratified by socioeconomic status, low SES children are likely to enroll in more disadvantaged schools. Third, assimilative associations suggest low SES children, already disadvantaged by prior social skill gaps, are more affected by their school context than are middle to high SES children. Thus, while low SES children

assimilate to lower social skill environments, richer children appear to gain little advantage from their more conducive environments and appear to function equally well in advantaged and disadvantaged schools. Taken together our results support the call for a policy focus that aims to a) decrease country level variance in social stratification, b) decrease between school heterogeneity is social status, and c) in combination with (a), encourage school selection policies that maximize within school heterogeneity in social status. 384

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Table 1

Effect of School Average SES on Social Skills

Outcome	Report Source	Estimate	-95% CI	+95% CI
conduct	teacher	-0.152	-0.261	-0.046
social	teacher	0.147	0.056	0.241
peer	teacher	-0.115	-0.204	-0.024
conduct	parent	-0.107	-0.169	-0.045
social	parent	0.087	0.018	0.156
peer	parent	-0.135	-0.205	-0.063

Table 2

Effect of School Average SES by Student SES on Social Skills

Outcome	Report Source	term	Estimate	-95% CI	+95% CI
conduct	teacher	School Average SES	-0.160	-0.270	-0.053
conduct	teacher	School Average SES by Student SES	0.151	0.064	0.240
social	teacher	School Average SES	0.156	0.059	0.252
social	teacher	School Average SES by Student SES	-0.094	-0.172	-0.017
peer	teacher	School Average SES	-0.126	-0.216	-0.036
peer	teacher	School Average SES by Student SES	0.117	0.044	0.191
conduct	parent	School Average SES	-0.112	-0.175	-0.048
conduct	parent	School Average SES by Student SES	0.058	0.006	0.111
social	parent	School Average SES	0.090	0.020	0.160
social	parent	School Average SES by Student SES	-0.031	-0.087	0.027
peer	parent	School Average SES	-0.144	-0.217	-0.074
peer	parent	School Average SES by Student SES	0.117	0.058	0.176

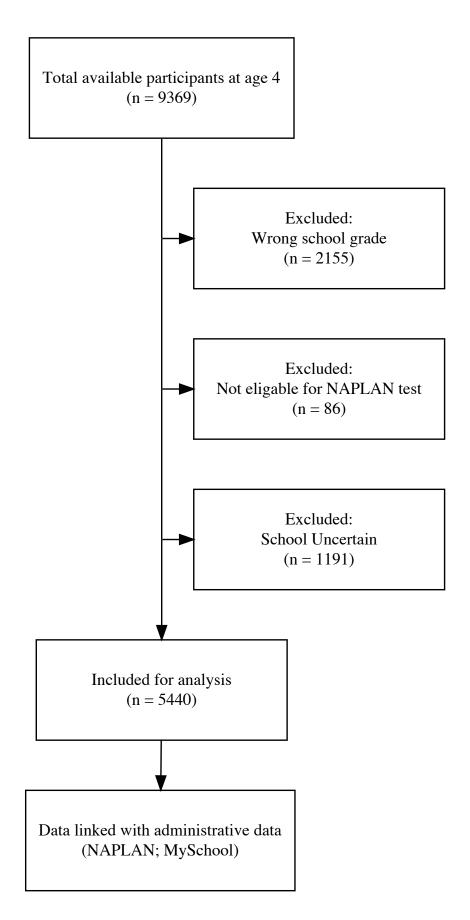


Figure 1. Participant flow diagramme

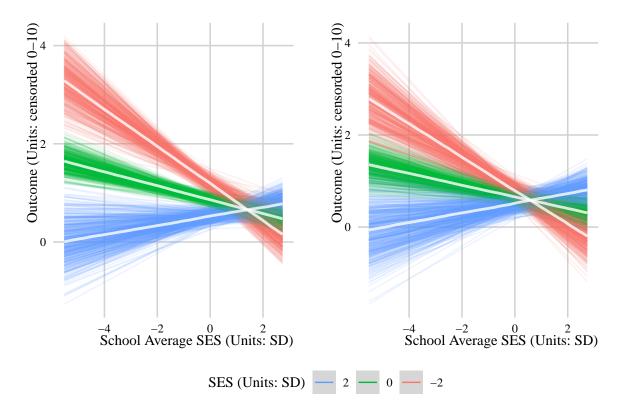


Figure 2. Interaction Plot for Peer Problems

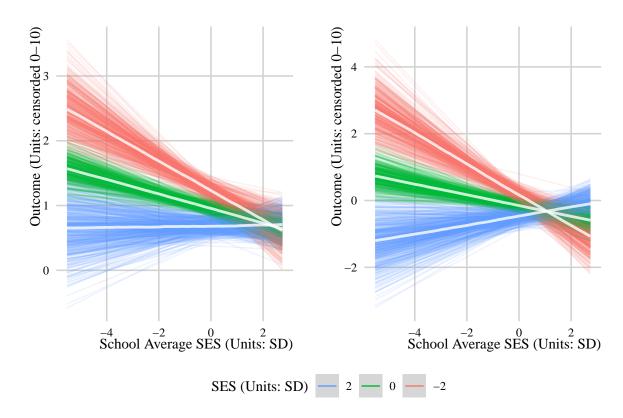


Figure 3. Interaction Plot for Conduct Problems

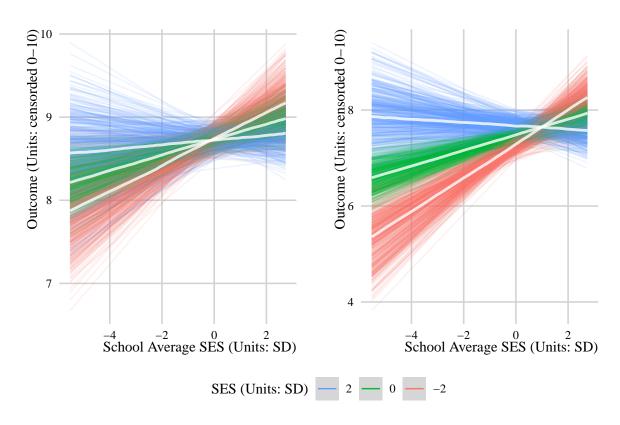


Figure 4. Interaction Plot for Prosociality