INDICATORS OF PARENT ATTITUDE AND BEHAVIOR TOWARDS EDUCATION –
THE CASE OF AUSTRALIA AND GERMANY

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This paper looks at the Australian and German education systems using three key indicators - structures of educational opportunity, educational outcomes and the attitudes and behaviors of parents. The study is designed with the view that comparative research, which explores shared and unique system characteristics, underpins better explanations and in turn better research and policy. The third indicator concerning the importance of parent perceptions of education and their use of strategies to gain educational advantage is often overlooked in comparative research. Preliminary findings show that through the increased use of strategies such as tutoring and private school enrolment, German and Australian families do not perceive that their education system is delivering enough. An education system performs better when families have high levels of trust and confidence in the educational opportunities and outcomes available for their children.

This study reflects the view that comparative studies which illustrate the unique characteristics of each system, as well as characteristics that are shared, underpin better explanations that ultimately contribute to better research and policymaking (Ringer, 1979). The German and Australian education systems will be explored using three interconnected measures - indicators of opportunity structure, educational outcomes and the attitudes and behaviour of parents. The third measure, which examines parental perception of education and the strategies they undertake to shore up educational success for their children, is a vital area of analysis. This research project has identified a lack of research and data concerning parent attitudes and behaviours within Australia. Permission has been granted to access data collected by the German National Educational Panel Study (NEPS), particularly interviews conducted with parents of children in the 5th Grade (Blossfeld, Roßbach & von Maurice, 2011). PISA collects data from parents of 15-year-old students; however it is collected at one point in time and it is not designed to explore an education system and its context in-depth. The wider project from which this paper is drawn will look to the NEPS database and other sources of publicly available data as a basis on which to collect further data from families in other education jurisdictions.

Opportunity Structure

Education systems typically define rules and practices surrounding their institutions, such as entrance, assessment and selection criteria that structure educational offerings and the opportunities available to students (Solga & Wagner, 2008). The Australian system is generally comprehensive in design, although there are differences in each state and territory’s education system. Australian students work towards a common school leaving certification and university entrance rank score and the curriculum at secondary school is geared to this common pathway1. From this angle, the opportunity structure is officially open and all students have the chance to go on to further study and experience educational success. Structural inequality in the Australian system is largely found within and across the different sectors of schooling. Various providers operate in the schooling marketplace, a longstanding historical arrangement dating from the colonial era, and all receive some level of Government support.

1 The state of Victoria does offer students the opportunity to complete a more hands-on learning school-leaving equivalent certificate (VCAL).
including private schools and religious schools (Campbell & Proctor, 2014). In 2010, 66% of full-time equivalent students attended Government schools in Australia, 20% attended Catholic schools and 14% were in so-called Independent schools (Gonski, 2011). Australia’s educational opportunity structure with such widespread private provision is unique within the OECD (Musset, 2012).

However, the proportion of students in each sector only illustrates one side of the story. More crucially, the various sectors have different socio-economic enrolment profiles. Figure 1 below shows a disaggregation of enrolment numbers in the Australian school sector by student socio-economic background.

**Figure 1.** Proportion of students across school sectors by socio-economic background quarter, 2010

![Figure 1](image.png)

Source: Reproduced from the Review of Funding for Schooling (Gonski, 2011, p. 9)

There is a noticeable class pattern across the school sectors, accounting for the views of some media commentators who describe a ‘three-tiered’ schools sector (Padley, 2014). The ideals of the inclusive new-World comprehensive schools system, which on paper offers all students the right to attend secondary school and work towards a common school leaving certificate are in conflict with the reality that the different sectors provide students with fundamentally different experiences of schooling. There is great variety concerning the educational opportunities offered between the school sectors as well as within the school sectors as each school has a different level of resources to draw on. It has been reported that in 2013, elite private schools in Victoria charged approximately $26,000 per year for tuition (not inclusive of the extras on top such as camps, music classes, sports), while some schools in the Government sector struggle to collect the non-compulsory minimum parent contribution, which is approximately $445 per student for the final year of secondary school (Marshall, Butt & Preiss, 2013). Teese states ‘the argument that resources do not count (which no private school parent believes) has a parallel argument in education policy that social context itself does not count’, and we cannot ignore this disparity (Teese, 2013). School fees also serve a gatekeeping function, as they ensure that families who have similar levels of cultural and economic resources are grouped together within an institution, and those who cannot afford to pay go to school elsewhere.

Germany is regarded as a segmented education system and similarly to Australia, German federalism grants the responsibilities of education to the states. Each of the 16 states has different structures of education in place. One significant difference between Australia and Germany is that nationally only 8% of German students attend Government-dependent private schooling at the secondary level and
Indicators of Parent Attitude and Behavior Towards Education

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legally schools of this kind are not allowed to discriminate on the basis of fees (Weiss, 2011, Organisation of Economic Cooperation and Development, 2013). Therefore, most German students participate in Government funded primary and secondary level education. Segmentation of students occurs in the secondary level. In some states, students are streamed into various types of secondary schools from the 4th Grade, while other states have reformed to ensure that this occurs in the 5th or 6th Grade. The various pathways are hierarchical, with the academic grammar school (Gymnasium) offering the university-entrance examination, while the main secondary school (Hauptschule) only runs until the 9th or 10th Grade and offer more vocational style subjects or pathways into apprenticeships. German students can also attend the intermediate school (Realschule) offering students pathways into high level vocational pathways and the completion of university entrance equivalent qualifications, while other states provide the comprehensive school (Gesamtschule or Schularten mit mehreren Bildungsgängen) which offers students the opportunity to work towards various school-leaving certificates within one school setting.

The decision as to which secondary school pathway is suited for the student is determined using one of two ways. Either the primary school teacher makes the pathway recommendation, or the parents have the choice. In those states where the teacher makes the recommendation, the grade is determined through exams. In the state of Bavaria students may have to sit up to 22 examinations in the 4th Grade for a grade point average to be determined (Schenk, 2012). The official aim of this institutional gatekeeping is to ensure that each student will be better served within a learning environment that matches his or her ability (i.e. weaker students will not be left behind and talented students will be extended) (Solga & Wagner, 2008). However many German researchers have found fault with this argument, as significant social and class patterns are found in the characteristics of students grouped within each type of school.

The proportion of students across the various Government secondary schools in Germany are detailed in Table 1.

Table 1: Proportion of students enrolled in the various types of Government secondary schools across Germany 2011/2012.

<table>
<thead>
<tr>
<th>Secondary school</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation Level (Schulartunabhängige Orientierungsstufen)</td>
<td>1.2</td>
</tr>
<tr>
<td>Main secondary school (Hauptschulen)</td>
<td>12.0</td>
</tr>
<tr>
<td>School with various educational pathways (Schularten mit mehreren Bildungsgängen)</td>
<td>10.3</td>
</tr>
<tr>
<td>Intermediate school (Realschulen)</td>
<td>20.0</td>
</tr>
<tr>
<td>Grammar school (Gymnasien)</td>
<td>42.1</td>
</tr>
<tr>
<td>Integrated comprehensive school (Integrierte Gesamtschulen)</td>
<td>14.0</td>
</tr>
<tr>
<td>School for students with learning difficulties (Sonderschulen)</td>
<td>0.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
</tr>
</tbody>
</table>


It is a peculiar characteristic of the German education system that although the English translation of the Hauptschule is defined as the ‘main’ secondary school, it only educates 12.0% of German secondary school students. In 2011, the school recommendation for students in the Munich schools district shows that 50.1% of students from a German-speaking background get a recommendation for the grammar school (Gymnasium) pathway compared to only 32.1% of students from non-German speaking backgrounds, who are more likely to receive a recommendation for the main secondary school (41.7%), which is the residualised and lowest tier on the German educational hierarchy (Landeshauptstadt München, 2013, p. 92). PISA 2000 found that the main secondary school (the Hauptschule) is the most socially homogenous type of school, generally serving families from lower
socio-economic and migrant backgrounds, which ‘wouldn’t be problematic if the Hauptschule served socially strong parents’ (Solga and Wagner, 2008, p.192). The main secondary school, sometimes disparagingly referred to as the ‘Restschule’, a school for leftovers, creates the structural conditions for poor academic performance and low aspiration (Wippermann, Wippermann & Kirchner, 2013).

The structure of educational opportunity is different within Australia and Germany, but similar themes abound. In Australia schools with more resources to draw on, such as the top-tiered elite private schools, cater for students who come from families who already have strong positions in the social hierarchy, while the grammar school in Germany does the same. These schools effectively ‘export failure’ and shore up success for students who arguably need it the least. They create greater educational opportunities as they can draw down on their historically accumulated pools of cultural and financial resources (Teese & Polesel, 2003, p.119). Although both education systems have an official narrative that students with merit can ultimately be successful within the defined institutional parameters—and this does happen for some students—it is clear that the institutional arrangements work best for students from higher socio-economic backgrounds who have parents who often were themselves the beneficiaries of these arrangements. Schools which work at the bottom of the hierarchical ladder in both systems find that they are working with student populations, amongst whom disadvantages are multiplied and educational risks are ever-present and continue to grow as students progress through school.

**Student outcomes**

In both countries student outcomes are determined mostly by the competitive academic curriculum in place, which effectively operates to sort students from one another, although the sorting occurs within different structural conditions. Teese finds that a hierarchy of schools and a hierarchy of curriculum rest on one another; together they form the system of structural inequality in place within both Australia and Germany (Teese, 2013, p.xiv). The Australian curriculum rewards students if they undertake subjects such as specialist mathematics, physics or European languages. These subjects are typically offered at more prestigious settings and have high failure rates in more disadvantaged areas or are simply not offered at all (Teese, 2013). In Australia, regardless of whether students want to enter tertiary education, in close to all states and territories their subject scores in the final two years of secondary school are equated to the Australian Tertiary Admission Rank (ATAR). This arrangement shows the influence that tertiary entrance has always had over the system and the devalued nature of other education and training pathways. Data from 2011 finds that attainment of a secondary school-leaving certificate amongst 20-24 year olds was 85.0%. However, more students from the highest socio-economic group achieve a school-leaving certificate compared to students from the lowest socio-economic group (93.3% compared to 73.7%) (COAG Reform Council, 2013).

In Germany there is a greater sense of the variety of pathways that can be developed through the education and training system and the strong German dual system provides various entry and exit points. Each secondary school type awards different school leaving certificates and each school certificate has different curriculum requirements. The range of school-leaving certificates in Germany is designed to place different levels of cognitive demands on students. In certain states students enrolled in the grammar school are required to learn Latin, while students in the main secondary school take part in subjects that have less social prestige and are more vocationally-orientated. Yet despite the high level of flexibility built into the structure, every 10th student still leaves the German education system without a leaving certificate of any kind (Fina, 2013). Credential creep is also impacting on the benefits that a student may gain from attaining the school leaving certificate from the main secondary school (Hauptschule), with graduates finding it harder to gain long-term employment or further training opportunities (Vodafone Stiftung Deutschland, 2013).

A key difference between the systems can be found when looking at the incidence of grade repeating, which is often decided on the basis of poor student performance. The Australian comprehensive system means that grade promotion is often automatic, while Germany has one of the highest rates of students repeating grades in the OECD (OECD, 2014). According to a German report, 2.7% of
German secondary school students repeated their grade in the school year 2011/2012 – in some states it was as high as 4.4% in Bavaria or as low as 1.5% in Baden-Württemberg (Berkemeyer et al., 2013, p. 252). PISA 2012 finds that ‘one in five students in Germany reported that he or she had repeated a grade at least once’ at either the primary or the secondary level (OECD, 2014). The design of the German hierarchical school system means that a potential failure can lead students into being ‘demoted’ down the educational ladder of opportunity and into a lower-level school or school-leaving certificate pathway. NEPS data indicates that Grade 5 students who are from families with a parent who has a main secondary school (Hauptschule) certificate are much more likely to have repeated a grade (11.6%) than parents with a university entrance certificate (3.9%).

PISA provides an interesting comparative perspective on student outcomes and achievement, yet PISA is limited in that it is only collected at one point in time and it is not designed to explore an education system and its context in-depth. PISA results do not accurately reflect what is occurring day-to-day in terms of school curriculum and pedagogy, nor is the assessment regarded as high-stakes for students who do not gain anything from their PISA performance. Germany experienced ‘PISA shock’ following the publication of PISA 2000. It came as a surprise that the German system had performed so badly (ranked 22 out of 32 tested nations) (Füller, 2011). Their system also performed extremely poorly when judged on equity measures, as in no other western industrialized country was the link between learning processes and social background so tight (Solga & Wagner 2008, p.191). Governments and education bureaucracies went into reform overdrive, described by some as ‘ten years of chaos’ (Füller, 2011). Some German states abolished their segmented systems to be more in line with high achieving PISA systems that were found to have more comprehensive structural arrangements. This was accepted better in some states than in others. The state of Hamburg attempted to abolish streaming in the 4th Grade and create a common-secondary school pathway, which was met with strong resistance from families who not only scuttled the reform, but went on to topple the Government. This resistance to comprehensive school reform is found across Germany. A recent survey of German parents asked whether they would prefer a unified secondary school pathway that could cater for talented students with specialized courses, or the current post-primary school arrangement with various types of secondary school. Responding to the survey, 58% of teachers and 56% of parents of school-aged children continue to prefer the current segmented secondary school arrangements (Institut für Demoskopie Allensbach, 2012).

PISA shock and the reforms that followed can now be seen as a historical moment, with the system seeking to improve with each round of international assessment. PISA 2012 results from Australia and Germany are displayed in Table 2 below.

Table 2: PISA 2012 mean score and annualized change across subject areas for Germany and Australia

<table>
<thead>
<tr>
<th></th>
<th>Maths</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean score</td>
<td>Annualised change</td>
<td>Mean score</td>
<td>Annualised change</td>
<td>Mean score</td>
<td>Annualised change</td>
</tr>
<tr>
<td>Germany</td>
<td>513.5</td>
<td>1.4</td>
<td>507.7</td>
<td>1.8</td>
<td>524.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Australia</td>
<td>504.2</td>
<td>-2.2</td>
<td>511.8</td>
<td>-1.4</td>
<td>521.5</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

Source: OECD, PISA 2012 Database, Tables I.2.1a, I.2.1b, I.2.3a, I.2.3b, I.4.3a, I.4.3b, I.5.3a and I.5.3b.

Table 2 indicates that according to PISA 2012 the two systems are achieving quite similar mean scores in all subject areas. The annualized change figure shows improvement within the German system, while Australia’s performance is declining. Australia’s results are of concern to policymakers with policy documents such as ‘Toward Victoria as Learning Community’ now using PISA performance as an explicit goal to drive system improvement (Department of Education and Early Childhood Development, 2012). German results continue to show a higher proportion of variation of performance between schools rather than within schools, symptomatic of the structures of schooling in
place and the difference in school performance between the main secondary school (Hauptschule) and the socially and academically selective grammar school (Gymnasium). German student mathematics achievement data finds that students from the main secondary school and the grammar school who are of the same age and belong to the lowest socio-economic quartile can have up to 4 years of academic difference between them (PISA-Konsortium Deutschland, 2004).

**Parent attitudes and behaviours**

Parents strategize within the structural arrangements set out by the education system and a common-held view in the Australian system is that ‘Grade 6 is the main game’ as it involves the transition from primary school into secondary school (Marshall, 2014). Australian parents feel under great pressure to ensure that they can access their preferred choice of school, especially at the secondary level. Property listings around Melbourne regularly reiterate the advantage to be gained through buying within certain school zones, as popular public secondary schools often have enrolment restrictions or a catchment in place. When choosing a school for their children, Australian parents are encouraged to use the Government-funded ‘My School’ website to access information about all Australian schools (Australian Curriculum, Assessment and Reporting Authority, 2014). The website contains performance data of each school so that parents can make direct comparison of one school to another. Research has found that despite such information being readily available to all parents, a shift in enrolments between schools has not occurred on the basis of the information provided on the site (Jensen, Weidmann & Farmer, 2013, p. 17). Although the federal education minister at the time of the site’s release praised the number of visits the site received in its first few days, this is an imprecise measure of the site’s usefulness for parents (Garrett, 2011).

In Germany the pressure on families is more likely to intensify at the 4th Grade transition. Many families view their child’s secondary school recommendation as a decision that will affect them for the rest of their lives (Grossbongardt, 2011). NEPS data show that 48.8% of parents with children in the 5th Grade already thought ‘very often’ or ‘often’ about what secondary school leaving certificate their child would finish school with. Researchers suggest that the effect of PISA shock within German families resulted in the rise of students enrolled in private schools as environments that may offer their child more personalized learning opportunities become more highly sought (Wippermann et al., 2013). Since 1992, the number of students enrolled in private schools nationwide has risen by 55%. However, this is from a relatively low number (Weiss, 2011). Table 3 reproduced from the OECD’s Education at a Glance 2013 details private school and public school enrolment proportion between Australia and Germany (OECD, 2013). An immediate difference is the sheer proportion of Australia’s private sector in comparison to Germany. However, in both countries the proportion of enrolments in the private sector rises most sharply between primary and lower secondary transition, indicative of the increasing pressure that families face as their children approach the final years of schooling and contemplate post-compulsory education and training.

**Table 3: Proportion of students enrolled in public and Government dependent private schools by level of schooling in Australia and Germany, 2011 (%)**

<table>
<thead>
<tr>
<th>%</th>
<th>Primary School</th>
<th>Lower secondary</th>
<th>Upper secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Govt. dependent private school</td>
<td>Public</td>
</tr>
<tr>
<td>Australia</td>
<td>69</td>
<td>31</td>
<td>64</td>
</tr>
<tr>
<td>Germany</td>
<td>96</td>
<td>4</td>
<td>91</td>
</tr>
</tbody>
</table>

Source: Table C1.4. OECD, Education at a Glance (OECD, 2013)
The tutoring industry in Germany has also experienced significant growth over recent years. In 2006, 143 million euros was spent on tutoring primary school children alone (Autorengruppe Bildungsberichterstattung, 2012). 13.3% of parents involved in the NEPS study had actually engaged tutors for their child in various subjects before the 5th Grade. In examining the education background of parents more likely to employ a tutor, parents with a university entrance certificate were less likely to have engaged a tutor in comparison to parents who hold all other types of school leaving certificates. Despite the fact that more educated parents are less likely to employ a tutor during primary school, NEPS data found that their children are more likely to receive a recommendation for the Grammar school (79.3%), compared to children whose parents with the main secondary school leaving certificate (29.5%). This practice indicates that less well-educated parents feel more vulnerable and lack the know-how when it comes to navigating the schools system, and so enroll their child in cram school or get tutoring to compensate.

Bringing in tutoring support is also a common practice in Australia, particularly during the transition years from primary to secondary school, or in the upper-years of secondary school before children sit the school-leaving examinations. Newspapers describe the anxiety of the scholarship season, as ever increasing numbers of students put together portfolios and cram for scholarship exams for private schools in Victoria (Marshall, 2013). More recently, tutoring for the National Assessment Program – Literacy and Numeracy (NAPLAN) in Grade 3 and 5 is also on the rise as parents see it as advantageous to private school enrolment and scholarship applications (Hosking, 2014). Newspaper articles discuss ‘cram schools’ that openly advertise the results they have achieved for students in the final years of school, while the number of people working as full-time tutors in Australia has grown according to the Australian Bureau of Statistics (Marshall, 2013).

The NEPS study asked German parents to identify what school leaving qualification they wanted their child to ideally obtain. Ideally 32.0% of parents wanted their child to attain the university entrance certificate, while only 4.3% of surveyed parents wanted their child to leave school with the school-leaving certificate from the main secondary school (Hauptschule). Parents were then asked what school-leaving certificate their child would realistically attain. Parents who had ideally identified the university entrance certificate then made a downward adjustment with their expectation, with only 81.5% of parents feeling confident enough that their child would in fact achieve the certification. What school-leaving certificate parents aspire to for their child is related to the perception of their status or worth in the broader community. The relative worth that each certificate has in terms of obtaining a good job are shown in Figure 3.
German parents regard the school-leaving certificate as more than simply a marker of educational achievement. They link their child’s education to the prospect of a good job and to a sense of their wider future (Wippermann et al., 2013). The views that parents have about the job prospects provided by the various school leaving certificates impact most significantly in German states where parents do get a say in their child’s secondary school pathway (Wippermann et al., 2013). If parents do not feel confident in the other school leaving certificates on offer, they would be more likely to choose the grammar school (Gymnasium) for their child as it offers the university entrance leaving certificate. This decision could present academic risks for their child, as he or she may not be ready for the high-pressure academic environment and failure leads to quick demotion through the hierarchical school system.

The importance of addressing indicators of parent attitudes and behaviour

A comparative approach takes education systems and compares them on a common set of indicators to provide an analysis that differs from research located in one country alone. This paper has teased out in brief the differences and some key similarities between the Australian and German education systems. There is a lot of research that illustrates educational opportunities and student achievement outcomes within each system. The third measure used – parent attitudes and behavior- has had less focus. NEPS data has been a useful source to analyse the perceptions of German parents towards their children’s education and their overall education system. We do not have a lot of research within a comparative framework that explores these three indicators together – education opportunity structure, student outcomes and parent attitudes and behaviour. Considering their interplay will enable a better understanding about how education systems function.

The attitudes and behaviour of families within the education system are often referred to in educational policy and analysis, but not often systematically studied. There are no developed indicators that can be used to analyse the attitudes and behavior of parents methodically and comparatively. However preliminary findings indicate that there are clear patterns within both systems - families are not moving about in either education system in a random way. Researchers have tended to focus attention on middle class parents as they have the capacity to invest more time
and resources. Families with know-how and resources better understand what sites are more secure in the school system and work to ensure their child is positioned appropriately. However, the attitudes and behaviours of all parents are important. Families with lesser socio-economic resources have their own experience of education systems and employ strategies as well. There are indications that they too experience levels of anxiety and stress as they navigate the institutions of schooling.

From these preliminary findings it can be said that German and Australian families do not perceive that their education system is delivering enough in terms of educational opportunities or achievement outcomes. Parents are expending significant resources on tutoring and school fees to ensure their child is supported in either a secure site in the schooling hierarchy, or within secure subjects in the curriculum. As researchers we need to examine the behavior and attitudes of parents, to find out what reforms will work to build their confidence in the education system, which also serve to deliver better and more equitable outcomes for all students.

This paper uses data from the National Educational Panel Study (NEPS): Starting Cohort 3 – 5th Grade, doi:10.5157/NEPS:SC3:2.0.0. From 2008 to 2013, NEPS data were collected as part of the Framework Programme for the Promotion of Empirical Educational Research funded by the German Federal Ministry of Education and Research (BMBF). As of 2014, the NEPS survey is carried out by the Leibniz Institute for Educational Trajectories (LIfBi) at the University of Bamberg in cooperation with a nationwide network.

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