

Weekly Report

Private Schools in Germany: Attendance Up, But Not Among the Children of Less Educated Parents

The percentage of children attending private school in Germany has increased sharply in recent years. According to data of the German Socio-Economic Panel (SOEP), 7% of all students now attend private school. The SOEP, which contains a range of household data, shows that the children of parents with a university entry degree („Abitur“) are more likely to attend private school than those with less educated parents. This trend has become more pronounced in recent years: between 1997 and 2007, the percentage of students with better-educated parents attending private school increased by 77%. By contrast, the corresponding increase for students with less-educated parents was only 12%. Multivariate analyses demonstrate that increasing selection in favor of better-educated groups is particularly evident at the secondary school level. At the primary school level, full-time employment of the mother and regional factors significantly increase the chances of private school attendance. Educational policy should focus on preventing children from better-educated groups from leaving the public school system. If competition among schools is to be encouraged as a matter of policy, efforts should also be made to ensure less educated families consider sending their children to private schools.

In the past, private schools in Germany catered to children from privileged households. A key factor in admissions decisions was the financial needs of the school itself. Today, however, this kind of discrimination is prohibited. Schools which are not administered by the government—referred to generally as “private schools”—are no longer permitted to make admissions decisions based on the financial means of parents. This is provided for by Article 7, paragraph 4 of the German Constitution. Nevertheless, it is normal for private schools to collect educational fees. The fee level is determined by the competing requirements of the anti-discrimination requirement and the financial needs of the school. In some cases, parents do not pay an explicit fee for private schooling but frequently make voluntary donations to an association or similar organization instead. Many private schools use stipends, reduced rates for siblings, or sliding scale tuition fees to give all applicants to the school the chance to attend. In light of these facts, who are Germany’s private school students? Is family income really not a determining factor for attending private school? What are the current trends? Is the percentage of children from more privileged backgrounds rising or falling?

Henning Lohmann
hlohmann@diw.de

C. Katharina Spieß
kspiess@diw.de

Christoph Feldhaus

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Data from a representative longitudinal study known as the German Socio-Economic Panel (SOEP) provide answers to all of these questions.¹ Since 1984, the SOEP, which is housed at the German Institute for Economic Research, has conducted an annual survey of some 11,000 households. One portion of the survey asks about the schooling of household members who are under the age of 17. In addition, every few years the parents provide information whether their children attend a private or public school. Private schools are defined here as schools not administered by the government but by the catholic or protestant church in Germany or other private institutions.

Private School Attendance Has Risen Over the Last 20 Years

As Figure 1 shows, the proportion of children attending private school in Germany in 2007 was 7.8%. This is roughly the same figure reported in official government statistics: 7.3%. Private school attendance is slightly higher in West Germany (8%) than in East Germany (6%). Government statistics and the SOEP both confirm this East-West divergence. Since the mid-1980s, the percentage of children in private schools in Germany has risen. In West Germany there was an increase of nearly 21% between 1987 and 2007 (government statistics show an increase of almost 27%). In East Germany, the percentage has more than tripled since the SOEP began collecting data in the East. In addition, government statistics for 2007 show that private school attendance is highest among high school students at the *Gymnasium* level (11%).² Private school attendance is much lower for students at elementary schools (2.4%), *Hauptschulen* (2.9%) and *Realschulen* (8.9%).³

Who Attends Private School?

Government statistics differentiate students according to the type of school they attend in Germany's three tiered educational system. Using SOEP data, private school students can also be differentiated according to socio-economic and socio-demographic characteristics.

An analysis based on household characteristics demonstrates that children with a single parent rarely at-

¹ See Wagner, G. G., Frick, J. R., Schupp, J.: The German Socio-Economic Panel Study (SOEP)—Scope, Evolution and Enhancements. In: Schmollers Jahrbuch, Vol. 127, No. 1, 2007, 139-169.

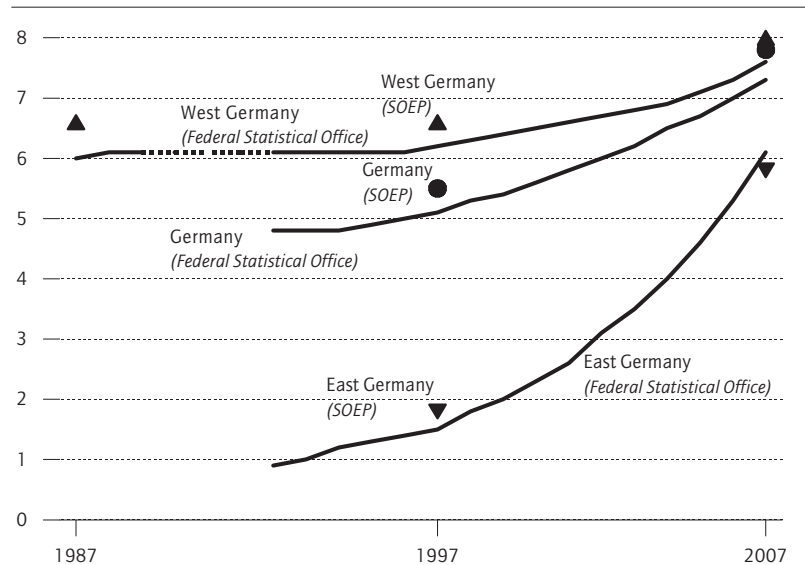
² In Germany's tiered educational system, *Gymnasium* is the best class of secondary school, followed by *Realschulen* and *Hauptschulen*.

³ See German Federal Statistical Office: Fachserie 1, Reihe 1.1. Schüler auf allgemeinbildenden Schulen. Wiesbaden, various years.

Figure

Private School Attendance in East and West Germany

Proportion of all students in percent according to data source



Sources: German Federal Statistical Office, Fachserie 1, Reihe 1.1., Schüler auf allgemeinbildenden Schulen; SOEP 1987, 1997, 2007 (Children under 17 in surveyed households, weighted); calculations by DIW Berlin.

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tend private school (5%). Among students with two parents, the proportion of children attending private school is higher at 8%.⁴ Table 1 also shows that private school is attended by 11% of children who come from households with incomes 150% higher than the median net household income adjusted for household size. In other income groups, the proportion attending private school is just under 7%. In larger communities, private school attendance is more common. The proportion of private school students among school children in 1997, in communities with populations over 100,000 is 9%, greater than the proportion in smaller communities.

An analysis based on parental characteristics reveals the following: the proportion of private school students who have at least one parent with a university entry degree is 12% higher than the proportion of private school students whose parents have only a mid-level school leaving diploma (i.e. a leaving certificate of a lower level than a university entry degree). This is also reflected in the composition of the private school student population. The majority of all private school students (59%) have at least one parent with a university entry degree, although this group only makes up about a third of the overall

⁴ However, this result is not very reliable statistically because of the small sample size.

student population. With a view to socio-economic status based on profession, the data show⁵ that children whose parents have a higher status are also more likely to attend private school: 14% of children whose parents have a high professional status attend private school, whereas only 9% and 6%, respectively, of children whose parents have a low status do so. An analysis based on the age of the parents (calculated using the age of the eldest parent at the time the child was born) shows almost 11% of children with older parents and just over 8% of children with younger parents attend private school. To what extent this is the result of age and cohort effects cannot be determined.

Maternal characteristics include the religious affiliation and occupation of the mother. 10% of children with Catholic mothers attend private school. The proportion of children with non-Catholic mothers who attend private school is lower. The data also indicates that a greater proportion of children with working mothers attend private school than children with mothers who do not work.

An analysis by child characteristics shows that girls (almost 9%) attend private school somewhat more than boys (almost 7%). As stated above, private school attendance is more common at the secondary school than the primary school level.⁶ This explains why older children more frequently attend private schools.

This purely descriptive analysis of attendance based on social and economic characteristics shows that, in general, children from socio-economically advantaged households more frequently attend private school. However, it cannot be determined whether selection occurs on the demand or supply side, or to what extent divergence can be explained by varying parental preferences.

A Clear Trend: Growing Private School Attendance Among Children with Better-Educated Parents

An analysis using SOEP data over time shows that beginning in the 1980s in West Germany, students with at least one parent with a university entry de-

⁵ This was determined using the so-called ISEI scale. Developed by Harry B. G. Ganzeboom, it is based on the international standard classification of occupations (ISCO). This hierarchical scale classifies occupations according to the level of education required and earned income. See Ganzeboom, H. B. G., de Graaf, P. M., Treiman, D.: A Standard International Socio-Economic Index of Occupational Status. In: Social Science Research 21, 1992, 1–56. The ISEI value used here is the highest value attained by at least one of the two parents.

⁶ It should also be noted that in 2007 siblings were less represented in private schools than single children. However, this is due to the very small statistical sample and is not corroborated by the other years.

Table 1

Private Schools According to Socio-Economic Characteristics

In percent

	Total	West Germany
Total	7.8	8.0
Household characteristics		
Household type		
Couple	8.3	8.5
Single parent and others	5.4	5.9
Relative income ¹		
Less than 75% of median	6.9	7.4
75% to 150% of median	6.9	6.9
More than 150% of median	11.0	11.5
Community size		
Fewer than 20,000 residents	5.6	6.1
20,000 to 100,000 residents	7.3	7.1
More than 100,000 residents	9.2	9.7
Parental characteristics		
Parental education		
No diploma or low-level diploma	4.8	5.0
Mid-level diploma	5.2	5.5
University entry degree	12.4	12.6
Parental socio-economic status (ISEI)		
16 to 34 (very low)	3.5	3.5
35 to 49 (low)	6.1	6.7
50 to 65 (mid-level)	9.0	9.3
66 to 90 (high)	14.3	14.2
No occupation data	4.8	5.7
Parents with immigrant background		
No	9.0	9.5
Yes	4.0	3.9
Age of parents at birth of child		
Younger than 27	2.2	2.5
27 to 33 years old	8.2	8.5
Older than 33	10.7	10.4
Maternal characteristics		
Religion		
Catholic	10.3	10.4
Protestant	7.3	6.6
None or other	5.4	6.7
Employment status		
Not working	6.4	6.7
Full-time	7.5	7.4
Part-time	8.7	8.9
Child characteristics		
Sex of child		
Male	6.9	7.1
Female	8.6	8.9
Age of child		
Younger than 11	7.6	7.3
11 to 14 years old	7.5	7.8
Older than 14	8.1	8.8
Siblings		
No	8.7	9.3
Yes	6.7	6.7
N (unweighted)	2 645	2 274

Figures written in cursive only represent 10 to 29 cases.

¹ Net household income adjusted for household size.

Source: SOEP 2007 (weighted).

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gree were more likely to attend private school than students whose parents with no such degree (Table 2). This gap has continued to increase in recent years. The percentage of private school students among school children whose parents have a university entry degree increased 52% from 1987 to 2007—from 8% to nearly 13%. In contrast, there was only a moderate or insignificant increase in the percentage of children attending private school whose parents have lower levels of education. An analysis of the last ten years yields similar results for Germany as a whole. For all of Germany, the proportion of private school students among school children whose parents have a high school diploma increased 77%. In the other groups, there was a 12% increase among students whose parents have no university entry degree, and a 2% increase among students whose parents have a mid-level school leaving diploma. An analysis limited to East Germany, however, reveals a different trend: the proportion of private school students has increased sharply for all groups regardless of parental education level. Notably, the proportion of private school students whose parents do not have a university entry degree rose over 300%, while the proportion of private school students whose parents do have this degree rose “only” 247%.⁷

What factors influence the probability that a student will attend private school? Multivariate models were used to answer this question. The results, which take into account the aforescribed parental, maternal, child, and household characteristics, are presented in Table 3. The first two models are based on a random sampling of all school children. The results show that girls are more likely to attend private school. The probability decreases with the age of the child. Students with siblings have a significantly higher probability of attending private school. Even in the multivariate analyses, the parents’ educational background has a strong, significant effect: all things being equal, children whose parents have a university entry degree have a 2 percentage point higher chance of attending private school. The significance of socio-economic status has increased over time (Model 2). Household income has no statistically measurable effect. Children from families without an immigrant background attend private schools more frequently. The mother’s employment status also has an influence: if the mother works full-time, the probability of attending private school increases by nearly one percentage point. All things being equal, children from East Germany are significantly less likely to attend private school. The probability

⁷ The starting point of this trend was at a very low level, and, due to the small sample of private school children in East Germany, the data are not necessarily reliable from a statistical point of view.

Table 2

Private School Attendance According to Parental Educational Level in East and West Germany

In percent

	1987	1997	2007
Germany			
No diploma or low-level diploma	–	4.3	4.8
Mid-level diploma	–	5.1	5.2
University entry degree	–	7.0	12.4
West Germany			
No diploma or low-level diploma	4.9	4.1	5.0
Mid-level diploma	6.2	7.7	5.5
University entry degree	8.3	8.8	12.6
East Germany			
No, mid-level, or low-level diploma	–	0.7	3.3
University entry degree	–	3.0	10.4

Source: SOEP 1987, 1997, 2007 (weighted).

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of attending private school in East Germany has sharply increased over time, however. In addition, the bivariate analyses confirm another result: children who live in large communities are more likely to attend private school. An analysis by school type indicates that students at the Gymnasium level are more likely to attend private school.

The third model is limited to primary school children. The results show that especially for primary school students, socio-economic status and full-time employment of the mother play a very significant role. For this reason, there is some indication that parents who require services to balance their family and professional lives send their children more often to private school. The general effect of community size also plays a role for primary school children. Presumably this effect is due to availability, since private primary schools are found more often in larger communities. However, it cannot be ruled out that different preferences among parents and children in larger communities are the cause of this effect. Among primary school children, girls do not have a statistically significant higher probability of attending private school. All other effects are the same as seen in the model that includes all school children.

The model for secondary schools shows that the effects of socio-economic status—and, in particular, the increasing significance of these effects over the past twenty years—are particularly pronounced at the secondary school level. At this school level in particular one may speak of the positive selec-

Table 3

Probability of Private School Attendance¹

	Alle Schüler		Nur Schüler der	
	Modell 1	Modell 2	Primarstufe	Sekundarstufe
Sex (reference: male)				
Female	0.013**	0.014**	0.001	0.023***
Age of student				
In years	-0.003**	-0.003**	-0.003*	-0.002+
Siblings (reference: no)				
Yes	0.012**	0.012*	0.013*	0.011+
Age of parents at birth of child				
In years	0.001	0.001	0.000	0.001
Parental education (reference: no or low-level diploma)				
Mid-level diploma	0.000	0.002	-0.005	0.006
University entry degree	0.024**	0.025**	0.026*	0.022*
Parental socio-economic status				
ISEI/100	0.008	-0.044+	-0.048+	-0.034
Net household income adjusted for household size				
In 100,000 euros	0.005	0.002	-0.011	0.014
Immigrant background (reference: no)				
Yes	-0.012*	-0.012*	-0.014*	-0.010
Employment status of mother (reference: unemployed)				
Full-time	0.012+	0.012+	0.023*	0.004
Part-time	0.007	0.007	0.010	0.004
Region (reference: West Germany)				
East Germany	-0.054***	-0.054***	-0.043***	-0.058***
Community size (reference: fewer than 20,000 residents)				
20,000 to 100,000 residents	0.005	0.005	0.029**	-0.008
More than 100,000 residents	0.014*	0.014*	0.056***	-0.009
Periods (1995=0)				
In years	0.001+	0.000	0.000	0.001
Interactions:				
Periods x East	0.006***	0.006***	0.007***	0.005*
Periods x ISEI/100	-	0.007**	0.004	0.009*
School type (reference: Hauptschule)				
Primary school	0.000	0.000	-	-
Realschule	0.022+	0.023+	-	0.022+
Gymnasium	0.035**	0.035**	-	0.034**
Other	0.101***	0.102***	-	0.114***
Pseudo-R²	0.068	0.070	0.068	0.082
N²	12 031	12 031	5 015	7 016

Signifikanzniveaus: *** p<0.001; ** p<0.01; * p<0.05; + p<0.1.

¹ Logit models, marginal effects.² Weighted to unify the number of cases for all years, all observations on a single person.

Sources: SOEP 1995, 2002, 2005, 2007.

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tion of students with socio-economically privileged backgrounds. Nevertheless, the effects of socio-economic status have not been especially strong. One might assume at first that higher private school tuitions are behind this effect. Yet the impact of household income is not significant. It is therefore reasonable to conclude that parental preferences are at work, i.e. parents with a higher status more readily choose private schools for their children than the relevant reference groups. But another possibility is that admissions processes—common among some private schools—“discriminate” in favor of children from better-educated families.

Conclusion

Government statistics show that both the percentage of private schools and percentage of private-school-attending children have increased sharply in recent years. SOEP data confirm these findings while also enabling a comprehensive analysis of which students attend private school and how student populations have changed over time. Our analysis shows that students whose parents are more privileged socio-economically are more likely to attend private school than their peers from families who are less privileged socio-economically. In contrast

to studies conducted in the United States, household income plays less of a role in Germany than the educational level and profession of the parents.⁸ Children from families with less educated parents have a significantly lower probability of attending a private primary or secondary school. This means a tendency towards segregation—long the subject of debate in Anglo-American scientific literature—also exists in Germany.

Some international comparative studies have shown that school systems which contain a greater number of privately funded schools produce better academic results.⁹ These analyses conclude that competition among schools has a positive effect. Other analyses conclude that private-school children do not perform better academically, and increased competition is therefore not desirable.¹⁰ In either case, social selection or segregation based on the parents' educational background should be avoided, for this could obviously lead to an exacerbation of already existing educational inequalities.

The German educational system should aim to ensure specific groups of children are not denied private schooling. The national law against educational discrimination due to financial resources alone does not appear to be effective in this regard. Education vouchers exclusively for children from low-income families—a proposal under discussion in the United States¹¹—do not appear to be the best general approach, however, as income level is a less decisive factor in Germany. Instead, greater efforts are required to remove other barriers on both the supply and demand side: for one, public schools need to become more attractive to prevent the children of well-educated parents from leaving for private schools.¹² In addition, if competition among schools is to be encouraged as a matter of policy, private schools should also step up their efforts to attract children from undereducated families.

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DIW Berlin
Mohrenstraße 58
10117 Berlin

Tel. +49-30-897 89-0
Fax +49-30-897 89-200

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8 For American analyses see for example Long, J. E., Toma, E. F.: The Determinants of Private School Attendance, 1970–1980. In: The Review of Economics and Statistics 70, 1988, 351–357 or for a more recent study Betts, J. R., Fairlie, R. W.: Explaining Ethnic, Racial, and Immigrant Differences in Private School Attendance. In: Journal of Urban Economics 50, 2001, 26–51.

9 See for example Wößmann, L.: Public-Private Partnerships and Student Achievement: A Cross-Country Analysis. In: Chakrabarti, R., Peterson, P. E. (Ed.): School Choice International. Cambridge, Mass., 2008, 13–45.

10 See for example Lubienski, S. T., Lubienski, C.: School Sector and Academic Achievement: A Multilevel Analysis of NAEP Mathematics Data. In: American Educational Research Journal 43, 2006, 651–698.

11 See also for example Barnard, J., Frangakis, C. E., Hill, J. L., Rubin, D. B.: Principal Stratification Approach to Broken Randomized Experiments: A Case Study of School Choice Vouchers in New York City. In: Journal of the American Statistical Association 98, 2003, 299–311, or for the relevant discussion concerning school systems in developing countries see Angrist, J., Bettinger, E., Bloom, E., King, E., Kremer, M.: Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment. In: The American Economic Review 92, 2002, 1535–1558.

12 For an analysis that discusses the significance of other reform measures aside from increasing financial support with regard to school choice, see for example McCormick, R., Moore, C., Yandle, B.: Private and Public Choices in Public Education: An Investigation of Trustee Effects. In: Public Choice 78, 1994, 219–230.