

Koebe, Josefine; Marcus, Jan

**Working Paper**

## The impact of the length of schooling on the timing of family formation

DIW Discussion Papers, No. 1896

**Provided in Cooperation with:**

German Institute for Economic Research (DIW Berlin)

*Suggested Citation:* Koebe, Josefine; Marcus, Jan (2020) : The impact of the length of schooling on the timing of family formation, DIW Discussion Papers, No. 1896, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin

This Version is available at:

<https://hdl.handle.net/10419/225025>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# 1896

## Discussion Papers

Deutsches Institut für Wirtschaftsforschung

2020

# The Impact of the Length of Schooling on the Timing of Family Formation

Josefine Koebe, Jan Marcus

Opinions expressed in this paper are those of the author(s) and do not necessarily reflect views of the institute.

#### IMPRESSUM

© DIW Berlin, 2020

DIW Berlin  
German Institute for Economic Research  
Mohrenstr. 58  
10117 Berlin

Tel. +49 (30) 897 89-0  
Fax +49 (30) 897 89-200  
<http://www.diw.de>

ISSN electronic edition 1619-4535

Papers can be downloaded free of charge from the DIW Berlin website:  
<http://www.diw.de/discussionpapers>

Discussion Papers of DIW Berlin are indexed in RePEc and SSRN:  
<http://ideas.repec.org/s/diw/diwwpp.html>  
<http://www.ssrn.com/link/DIW-Berlin-German-Inst-Econ-Res.html>

# The impact of the length of schooling on the timing of family formation<sup>☆</sup>

Josefine Koebe\*, Jan Marcus

*September 2020*

---

## Abstract

Individuals typically traverse several life phases before forming a family. We analyse whether changing the duration of one of these phases, the education phase, affects the timing of marriage and childbearing. For this purpose, we exploit the introduction of short school years in Germany in 1966-67, which compressed the education phase without affecting the curriculum. Based on difference-in-differences regressions and German Micro Census data, we find that earlier graduation due to short school year exposure affects the timing of marriage for individuals in all secondary school tracks and shifts forward the birth of the first child mainly for academic-track graduates. This highlights that education policies might not only affect family formation through human capital accumulation, but also through changing the duration of earlier life phases. This is important as not only age at marriage and first birth increases in many countries, but also the duration of the education phase.

*Keywords:* family formation, instruction time, fertility, marriage

*JEL:* I26, J12, J13, J24

---

---

<sup>☆</sup>We are thankful for helpful comments from Nathalia Danzer, Daniel Kemptner, Michael Kvasnicka, Analia Schlosser, Hannes Schwandt, Thomas Siedler, Helena Skyt Nielsen, and Matthias Westphal.

\*Corresponding author.

*Email addresses:* jkoebe@diw.de. University of Hamburg & DIW Berlin (Josefine Koebe),  
jan.marcus@uni-hamburg.de. University of Hamburg & DIW Berlin (Jan Marcus)

## 1. Introduction

Almost all industrialized countries see a secular trend toward postponing family formation to later ages (OECD, 2019) – with important economic consequences. Postponed childbearing decreases – all else equal – the number of children born per year, putting the funding of social security systems under pressure (e.g. Billari et al., 2006). The timing of marriages and first births also have large impacts on other economic decisions, including on savings and the spacing of subsequent births (Díaz-Giménez and Giolito, 2013; Hodsdon and Marini, 2019). Additionally, medical costs increase with later child births due to adverse health effects (e.g. Gustafsson, 2001; Myrskylä and Fenelon, 2012) and because fecundity declines with age (Larsen and Vaupel, 1993) making fertility treatments and involuntary childlessness more likely.

This paper contributes to our understanding of whether and how policies that alter the duration of specific life phases can act as drivers of marriage and fertility timing. In most developed countries, individuals traverse several life phases in a rather strict order before they form a family (Blossfeld and Rose, 1992; Billari et al., 2000; Lutz and Skirbekk, 2005; Huinink and Kohli, 2014). Primary and secondary schooling precede tertiary education, education phases typically precede labor market entry and labor market entry typically precedes family formation. Given the sequencing of life phases, there is surprisingly little research on the consequences of extending or reducing one of these phases. However, analyzing the duration of earlier life phases is not only relevant in explaining later childbearing and decreasing fertility rates, but it may also offer a potential lever for public policies.

We study a policy change in Germany that reduced the length of the education phase. This policy allowed entire cohorts to graduate from secondary school about eight months earlier – with the same degree and the same curriculum. Before the reform, the school year started in spring in some German states and in fall in other states. After a policy change to harmonize the education system across states, school started in fall in all states. States achieved the shift of the school year start from spring to fall by the introduction of so-called short school years (*Kurzschuljahre*), in which two school years were put in about 16 calendar months in 1966/67. Pischke (2007) analyses this reform as well. He finds that the short school years did not have any negative impacts on human capital acquisition as it reduced neither labor income nor employment prospects; a finding we replicate in this paper. Further, Braakmann (2010) shows that there are no effects of the reform on health outcomes. Similar to Pischke (2007) and Braakmann (2010), we exploit this reduction of the length of schooling in a difference-in-differences framework, where we compare cohorts before and after the reform in affected states with the same cohorts in states that did not

introduce short school years. We pool several cross-sections of the German Micro Census, a one percent sample of the German population, to study the effect of this reform on the timing of marriage and fertility.

We find that earlier graduation due to short school year exposure affects the timing of marriage and child birth. More specifically, we show that the short school years increase the probability to be married eight years after the normal graduation age by about 3.7 percentage points (pp) for individuals in the middle track and by about 4.1 pp for individuals in the academic track (compared to sample means of 43 and 37 percent, respectively). Moreover, individuals in the academic track are also 3.2 pp more likely to have a first child eight years after graduation (compared to a sample mean of 22 percent). These effects do not only hold eight years after graduation but also five years after graduation and up to ten years after graduation. However, the effects fade over time, indicating that the short school years affected the timing of marriage and parenthood, but not the probability to ever marry or become a parent. We further show that the obtained effects are driven by both males and females, as well as that the reform affected also the probability to have a second child within the first ten years after graduation for individuals in the academic track. Our findings provide evidence that policies that change the duration of specific life phases can affect family formation.

Our study contributes to the literature on the relationship between education and family formation. There is ample evidence that higher levels of education are associated with later childbearing (see, e.g., Skirbekk, 2008) and marriage (see, e.g., Jejeebhoy, 1995; Oppenheimer, 1997) in various countries and time periods. The literature discusses mainly lock-in and human capital effects as mechanisms why education can causally affect family formation. The lock-in effect means that individuals are less likely to marry and give birth while in school (Black et al., 2008), e.g. due to a high degree of economic dependence on the parents or the incompatibility of child rearing and acquiring education (Blossfeld and Rose, 1992). The human capital effect relates to the idea that education increases labor market opportunities and, thereby, the opportunity costs of children (Becker, 1981).<sup>1</sup> While the former mechanism relates only to family formation during education, the latter mechanism looks at family formation after the education phase.

In order to empirically test whether the negative education-fertility relationship is causal, many empirical studies capitalize on unintended fertility consequences induced by educational reforms. Most studies use exogenous variation from laws changing age at school entry or

---

<sup>1</sup>Becker's theoretical approach targets marriage and fertility behavior alike, as his approach regards child production and rearing as the main purpose of marriage. He formulates the argument of sex-specific division of labor as an incentive to enter into marriage and also with respect to the decision to have children.

compulsory schooling reforms. The effect of education using school entry rules is found to be more profound with respect to teenage pregnancies (Black et al., 2011; Tan, 2017), while McCrary and Royer (2011) find little evidence for school entry policies affecting age at first birth. Almost all studies on compulsory schooling reforms provide evidence that longer educational attainment leads to postponement of first births (see, e.g., Black et al., 2008; Monstad et al., 2008; Silles, 2011; Cygan-Rehm and Maeder, 2013; Grönqvist and Hall, 2013). The empirical evidence regarding the effect on completed fertility is more mixed. While some studies find that education decreases completed fertility (see Cygan-Rehm and Maeder (2013); Fort et al. (2016) for England), other studies show that education has no effect on completed fertility (Monstad et al. (2008); Fort et al. (2016) for Continental Europe). Furthermore, Devereux and Tripathi (2009) find that increasing the length of compulsory schooling also leads to higher ages at first marriage. There are also some studies that exploit institutional changes at higher levels of the educational system. Currie and Moretti (2003) and Kamhöfer and Westphal (2019) use college expansions in the U.S. and Germany, respectively, as an instrument for education. Currie and Moretti (2003) find that higher educational attainment reduces completed fertility and Kamhöfer and Westphal (2019) find that increasing education affects the timing of childbirth and reduces the probability of becoming a mother.

We contribute to the literature on the relationship between education and family formation by proposing a third causal mechanism, a duration effect. Education might affect family formation since it affects the timing of subsequent life phases (in particular, labor market entry), which individuals typically traverse before forming families. It is very difficult to separate this duration effect from the human capital effect and, actually, all studies that rely on post-education effects of compulsory schooling reforms and college expansions look at the combined human capital and duration effect. The short school years are, therefore, a particular policy reform as (i) this reform allowed for earlier graduation from school without affecting the curriculum; and (ii) previous empirical studies find no evidence that this reform had adverse effects for human capital acquisition (Pischke, 2007; Braakmann, 2010). The idea of the duration effect of education is also in line with the finding of Humlum et al. (2017) that delayed college enrollment leads to the postponement of marriages and childbearing.

Our study also contributes to the literature on policies that affect family formation by highlighting the importance of unintended consequences of policies that reduce or extend specific life phases. While pro-natalist and pro-marriage policies are highly controversial (see, e.g., Cherlin, 2003), it is important to know whether and how existing policies affect family formation, irrespective of the normative standpoint. Many empirical fertility studies

focus on the impact of specific family policies including direct financial transfers like child allowances and fiscal incentives (e.g., Björklund, 2006) as well as work-related family policies like parental leave benefits (e.g., Lalive and Zweimüller, 2009; Cygan-Rehm, 2016; Kluve and Schmitz, 2018; Raute, 2019) and child care availability (e.g., Rindfuss et al., 2010; Mörk et al., 2013; Bauernschuster et al., 2016). In her literature review, Gauthier (2007) concludes that several family policies are found to increase fertility but that the magnitude of these effects is small. There are also several studies that deal with the effect of specific policies on the marital status. These policies almost exclusively focus on financial incentives; for instance, tax penalties (Alm and Whittington, 1997; Baker et al., 2004) and benefits (Fink, 2020), welfare expansion (Halla et al., 2016), the elimination of survivors insurance (Persson, 2020), and cash-on-hand marriage subsidies (Frimmel et al., 2014). While the majority of these studies provide evidence that financial incentives affect the timing of marriage, only some find effects on the probability to ever marry.

Our study emphasizes that family formation is not only affected by pro-natalist or pro-marriage policies, but also as a side effect of other policies, e.g., policies that alter the duration of the education phase. This is not only important for policymakers to keep in mind when discussing education reforms, but it also might offer a tool for those who would like to change the timing of family formation. Further, our study points out that the consequences for family formation should be considered when discussing policies that affect the duration of specific life phases. This is important, for instance, in current debates about the European Bologna reform shortening the time to a first university degree (Hahm and Kluve, 2019), the suspension (and re-introduction) of compulsory military service in several countries (Imbens and van der Klaauw, 1995; Bauer et al., 2012), the German G8 reform shortening the schooling phase (Huebener and Marcus, 2017; Marcus and Zambre, 2019), and the general education expansion occurring in many developed and developing countries.

Therefore, our study contributes to both the literature on the relationship between education and family formation as well as the literature on policies that affect family formation. An additional contribution that this study has to offer is the detailed compilation of dates (and primary sources) for several relevant education reforms in West Germany, where there is some ambiguity in the previous literature. These reforms do not just include the short school years but also regulations regarding school entry ages, the beginning of the school year, and compulsory schooling. The collection of reform dates and law sources allows for isolating the short school year reform from previous changes of the school year start and assigning the short school years more precisely compared to previous studies. This framework can also be used by other researchers.



The remainder of the paper is structured as follows: Section 2 describes the institutional setting and Section 3 the data, while Section 4 outlines the empirical strategy. This is followed by the main results in Section 5, sensitivity analyses in Section 6 and additional results on gender differences, longer time horizons, and subsequent births in Section 7. Section 8 concludes.

## 2. Institutional background

We study a policy change in West Germany in 1966/67 that reduced the length of the education phase by introducing short school years (SSY). These short school years compressed two school years into 16 calendar months. The SSY were introduced in an effort to harmonize the start of the school year across states.

In October 1964, the Ministers of Education of the West German federal states decided, in what is known as the Hamburg Accord (*Hamburger Abkommen*), that the school year would begin in the fall in all eleven states (Froese, 1969, pp.327-323). Before this decision, Easter marked the begin of the school year in most states, while in Bavaria the school year began in fall.<sup>2</sup>

Seven states (Baden-Württemberg, Bremen, Hesse, North Rhine-Westphalia, Rhineland-Palatinate, Saarland, Schleswig-Holstein) achieved the shift of the school year start by introducing so-called short school years (*Kurzscholejahre*), in which two school years were put in about 16 calendar months (see Helbig and Nikolai, 2015, p.70-73): The first SSY started on April 1, 1966, and ended on November 30, 1966, while the second SSY year started on December 1, 1966, and ended on July 31, 1967. Due to these short school years, affected individuals graduated about two-thirds of a school year earlier (or about eight months of calendar time), but with the same degree and curriculum taught.<sup>3</sup>

Three states did not introduce SSY: Bavaria (where schools already started in fall before the Hamburg Accord) as well as Hamburg and West-Berlin. The two latter states opted for

---

<sup>2</sup> This was actually not the first change of the start of the school year: During the Nazi regime, in 1941, the start of the school year was shifted to a common start in fall (see *Reichsgesetzgebung* in 1941 in Table B.12), after the Second World War most federal states successively switched back to a starting date at Easter (KMK, 1962). In February 1955, the states' Ministers of Education proclaimed Easter as a uniform start of the school year across all federal states in the so-called Düsseldorf Accord (*Düsseldorfer Abkommen*) (Froese, 1969, pp.307-311). However, the Bavarian parliament voted against the implementation of this resolution. As a result, children in Bavaria have started their school year in the fall ever since 1941. For a comprehensive collection of schooling laws related to the shift of the start of the school year in the German federal states, see Appendix B.

<sup>3</sup>Pischke (2007) provides evidence that the curriculum was not affected by SSY, meaning that human capital acquisition is likely to be unaffected.

a long school year to transition to the uniform start in fall. In both states, students who were in their graduating year and had once begun their school career with a school start at Easter also graduated in March. Hence, students from Berlin and Hamburg attended the regular amount of time required without any school year reductions despite the school year transition to a start in the fall.

In West Germany, students in all states opt for one of three secondary school tracks after four years of joint primary schooling at around age ten (see Dustmann et al. (2017) for a detailed synopsis on the German tracking system): basic (*Hauptschule*, grades 5-8/9), middle (*Realschule*, grades 5-10), or academic track (*Gymnasium*, grades 5-13). Generally, the shifting of the school year start in 1966/67 affected students in primary school as well as in all secondary school tracks. Several states changed compulsory schooling regulations during our observation period from eight to nine years (Backhaus, 1963; Leschinsky and Roeder, 1980; Petzold, 1981). These changes mainly affect students in basic track and we discuss compulsory schooling regulations in more detail in Appendix B and potential consequences for our estimates in the robustness section (Section 6).

Lower Saxony was the only state that differentiated between tracks in terms of SSY exposure. Basic track students were unaffected by SSY, as for graduating classes their short school year losses were added in their final year (German Federal Statistical Office, 1967). Depending on their school starting cohort, middle track students were ambiguously affected by SSY due to changing regulations with respect to the graduating classes in the years after the short school years,<sup>4</sup> while academic track students were fully affected by the policy reform without any school year extensions for graduating classes.

Pischke (2007) assigns the seven states that introduced short school years to the treatment group, while he assigns the three states that did not introduce short school years to the control group. Lower Saxony is partly assigned to the treatment group and partly due to the control group, depending on the institutional details described above.

### 3. Data

Our analysis uses data from the German Micro Census (RDC, 2019), a one percent sample of all German households. Once drawn for the survey, participation is mandatory and, hence,

---

<sup>4</sup>As described in more detail by Pischke (2007), students entering their final year with the first SSY were exposed to one SSY, the next three cohorts starting their final year in December 1966 through August 1968 were exposed to two SSY. The next six cohorts, however, who were in their last school year from August 1969 to August 1974 were subject to school year extensions such that they graduated from March 1971 until March 1976 after the regular amount of schooling of 10 years. See Table B.7 for an overview.

selective non-response and attrition is not a concern. We use the scientific use file, a 70 percent random sample of the data, and the 18 waves from 1976 to 2003.<sup>5</sup> The data set is well-suited for our analysis as it contains rich information on family structure, marriage, and education. Importantly, each of the 18 waves includes about 300,000 to 400,000 individual observations in the West German states, providing a large number of observations in target cohorts and allowing for a precise estimation of reform effects.

### 3.1. Outcome measures

Our main outcome variables relate to the timing of marriage and parenthood. More specifically, we look at the probabilities to be married and to have a child in or before period  $p \in \{5, 8, 10\}$ , i.e., five, eight, and ten years after the regular graduation age. More formally, the outcome variables  $Y^{e,p}$  are defined as

$$Y^{e,p} = \begin{cases} 1 & \text{if } e \text{ in } t \leq p \\ 0 & \text{otherwise,} \end{cases} \quad (1)$$

where  $t \in [1, 10]$  indicates the time (measured in years after the regular graduation age) the event  $e \in \{\text{marriage}, \text{parenthood}\}$  took place. The regular graduation age refers to the age at which individuals usually graduate from a specific track, i.e. in the absence of short school years: age 15 when in basic track, at age 16 when in middle track, and at age 19 when in academic track. In further analyses, we also look at other time intervals.

We construct the marriage outcomes based on the wedding year of the current marriage. While also divorced and widowed individuals are asked about the year of their last marriage, there is no information on whether the current marriage is also respondents' first marriage. This introduces measurement error in the dependent variable. However, there is no reason to assume that this measurement error is related to the SSY introduction. Further, we limit the extend of measurement error by considering only the information of respondents up to a specific age (see below).

There is also measurement error in the fertility outcomes. In our data, individuals are not directly asked about their biological children. However, birth information is available for all children in the household. Based on this information, we calculate the parents' age at the birth of their first child as the difference between the year of birth of the oldest child in the household and that of the parents. This procedure induces measurement error in households

---

<sup>5</sup>The Micro Census was conducted in 1976, 1978, 1980, 1982, 1985, 1987, 1989, 1991, 1993, and in all years from 1995 to 2003. 2003 is the last Micro Census wave in our main sample as we focus on respondents up to age 39 and on birth cohorts up to 1964.

in which the oldest child died or left the household as well as in households that adopted the oldest child. This measurement error is of particular concern as older children are more likely to move out of the household. We, therefore, restrict the analyses to individuals who are up to 39 years at the time of the interview, as it is less likely they have children who already left the household. This cut-off below 40 is recommended by Krapf and Kreyenfeld (2015), who compare the number of children based on this procedure with the number of biological children. In the robustness section, we show that our results are insensitive to alternative cut-off ages.

While we also look at the birth of a second child, we abstain from analyzing higher order parities or completed fertility as we only observe children living in the household. For these outcomes, the measurement error would be much larger. In our data, we face a trade-off between looking at longer time horizons and systematic measurement error in our outcome variables due to children moving out of the household. By looking at outcomes up to five, eight, and ten years after graduation, the measurement error in our outcome variables will not be very large. Further, the timing of family formation is also relevant from an economic perspective because it affects many other economics decisions and because later childbearing means later labor market entry for the children, putting social security systems under pressure.

### *3.2. Treatment assignment*

We basically follow Pischke (2007) in assigning the treatment variable and restricting the sample, but make some small changes to allow for a more precise assignment of the length of schooling.<sup>6</sup> SSY exposure depends on three characteristics: the federal state of students' school location, students' school starting cohort, and the secondary school track (see Section 2). In principle, SSY affected all students in treatment states who were enrolled in primary or secondary school in 1966/67. However, at a given point in time, additional cohorts are enrolled in academic and middle track compared to the basic track, as the basic track caters grades 5-8 or 5-9,<sup>7</sup> the middle track grades 5-10, and the academic track grades 5-13.

Figure 1 is a stylized graph that visualizes SSY exposure in treatment states and the resulting years spent in school until graduation, depending on individuals' secondary school track and school starting cohort. A student entering primary school in a treatment state in 1952 had already left secondary school by the start of the first SSY in 1966, irrespective of the

---

<sup>6</sup>Pischke (2007) finds that SSY exposure had no adverse long-term effect on human capital acquisition and we can replicate this finding using his sample restrictions (see Table A.1 in Appendix A).

<sup>7</sup>Several states increased the number of years of compulsory schooling from eight to nine (see the discussion in Section 6 and Appendix B).

attended track. The same holds for the school starting cohorts 1953 and 1967-1970. For the school starting cohorts 1954-1958, however, the choice of secondary school track matters for SSY exposure. For instance, students from the 1957 school starting cohort were exposed to two SSY in academic track, while they were exposed to only one SSY in middle track and no SSY in basic track. For school starting cohorts 1959-1966, students in all school forms were exposed to two SSY and, hence, graduated two-thirds of a school year earlier, while the four school starting cohorts 1964, 1965, 1966 (first SSY), and 1966 (second SSY) were all exposed to the reform during primary school. In sum, SSY exposure depends on federal state, school starting cohort, and secondary school track; consequently, we assign the treatment variable based on these three characteristics.

Our treatment variable takes on the value 1 if an individual was exposed to two SSY and the value 0 if an individual was not exposed to SSY. Individuals who were in the last year of secondary school when SSY were introduced as well as individuals who started primary school with the second SSY were only exposed to one SSY. For these individuals, the treatment variable is set to 0.5.

When assigning the treatment variable, we must deal with several challenges due to the nature of the Micro Census data. First, we only have information on the current state of residence, but not on the state an individual went to school. This is a common issue when working with the Micro Census, but residential mobility across states is very low in Germany and the current state of residence is found to be a good proxy for the state in which an individual went to school (see, e.g., Pischke, 2007; Pischke and von Wachter, 2008; Jürges et al., 2011). We further limit the extent of this measurement error by considering only respondents below the age of 40.

Second, retrospective information on the attended school track in a given year is not provided in the Micro Census. However, switching tracks and degree upgrading as adults is not very common in the analyzed cohorts in Germany (Dustmann et al., 2017).<sup>8</sup> This is another common issue when working with this data set and we follow the procedure of previous studies (see, e.g., Pischke, 2007; Pischke and von Wachter, 2008; Jürges et al., 2011; Cygan-Rehm and Maeder, 2013), assigning the school track based on information on the highest secondary school degree obtained.

Third, information on grade repetition is not available. Therefore, we mistakenly assign grade repeaters from the last cohort before the SSY introduction to the control group, even though they actually experienced SSY due to their grade repetition. This misassignment of

---

<sup>8</sup>We limit also the extent of this measurement error by considering only respondents who participated in the Micro Census before age 40.

the treatment variable results in a (small) downward bias. Our results are robust to excluding the last pre-treatment cohort (see Section 6).<sup>9</sup>

Fourth, the data lacks information on the exact month of birth, which would allow a more precise assignment of students' school starting cohorts based on the respective legal school-starting age cut-off in each federal state at the time (see Appendix B for a comprehensive collection of educational laws on school-starting cut-off rules for all West German states). The Micro Census data provide only information on the season of birth, that is, whether individuals were born between January and April or between May and December. In most federal states, the age cut-offs coincide to a large extent with this season of birth information. While Pischke (2007) and Braakmann (2010) assign the treatment indicator only based on the year of birth and assume a school start in the year the child turns seven, we exploit the season of birth information to reduce misassignment of actual treatment status.<sup>10</sup>

### *3.3. Sample restrictions*

We restrict our analysis to German respondents in private households in West Germany and exclude individuals who obtained their school degree in East Germany. We impose several additional sample restrictions and, in Section 6, we show that our conclusions also hold if we apply different constraints. In our main analysis, we consider cohorts starting school between 1952 and 1970. This translates to using birth years ranging from 1945-1964. However, we exclude school starting cohorts 1964, 1965, and both school starting cohorts in 1966 in our main specification. These cohorts were exposed to SSY during primary school and Pischke (2007) shows that these cohorts have a lower probability of enrolling in either the middle or academic tracks. Hence, for these cohorts, the secondary school track is endogenous. The remaining birth cohorts in our sample made their track choice before the SSY introduction. While Pischke (2007) and Braakmann (2010) use birth cohorts from 1943-1964, we focus on a slightly smaller window of cohorts (1945-1964). The main reason for this is that, in several states, the birth cohorts 1943 and 1944, thus, school starting cohorts 1950 and 1951, were affected by previous changes of the start of the school year from fall to Easter in line with the Düsseldorf Accord. However, for the federal state of Saarland, narrowing the sample window does not allow for isolating the impact of the SSY, as more than the first two cohorts

---

<sup>9</sup>Further, Pischke (2007) shows that SSY exposure increases grade repetition among cohorts who were exposed in primary school. We exclude these cohorts from our main analysis (see below).

<sup>10</sup>Our results are robust to assigning the treatment based only on the year of birth (see Section 6).

were affected by altered length of schooling (see also footnote 2, Figure B.1 and Tables B.1-B.11).<sup>11</sup> Therefore, we exclude Saarland from our main analysis.

We also impose a restriction on the respondents' age. We only consider the information of respondents ten to twenty years after regular graduation.<sup>12</sup> We impose the lower age limit of ten years after graduation in order to have the same sample for all outcome variables - irrespective of the considered time window after graduation. We apply the upper age limit of twenty years after graduation to reduce measurement error in our outcome variables due to second marriages and children who have already moved out (see the discussion above). Twenty years after graduation also means that for individuals in the academic track, the maximum age of respondents is 39, which is also below 40, the age cut-off recommended by Krapf and Kreyenfeld (2015). Consequently, basic track students' reporting age is between 25 and 35 years, middle track students' between 26 and 36 years and academic track students between 29 and 39 years of age. Our sample restrictions lead to the final estimation samples of 203,501 observations in basic track, 98,448 in middle, and 109,199 in academic track, a grand total of 411,148 observations.

### 3.4. Descriptive statistics

Table 1 reports sample summary statistics by track. Several points are worth noting. First, the share of females is lower in the academic track. This is not a methodological artifact, rather it is a sign of discrimination against women in the examined cohorts. Second, while the samples in all three tracks comprise the same school starting cohorts 1952-1970, the average birth year differs between the tracks. This is due to the general trend of increasing educational attainment over time: Whereas 59 percent of students from the 1952 school starting cohort graduated from basic track, by the end of our sample period in 1970, this share had decreased to 37 percent. Third, the age difference between the tracks is a result of the sample restriction to only consider the answers of respondents ten to twenty years after graduation. Fourth, at the time of the interview, 22% of individuals in the basic track had not married, while this share is 25% for the middle, and 32% for the academic tracks.<sup>13</sup>

---

<sup>11</sup>Saarland was last to implement the common start of the school year at Easter in 1957 and, hence, had to switch start of the school year again within a shorter time period. Our results are robust to including Saarland (see Section 6).

<sup>12</sup>We drop 879 observations with births before age 15 (accounting for 0.2 percent of the final sample). We assume that these young ages rather relate to classification errors as we only observe children currently living in the household – and not necessarily only biological children.

<sup>13</sup>Note that about 4-5% of individuals in our sample are divorced. However, we can correctly assign the year of marriage for them as the Micro Census also asks both divorced and widowed individuals about the year of their marriage.

Among individuals who are married (or who have been married), the average age at marriage is clearly lower for individuals in the basic track (22.7 years) than in the middle (24 years) or academic (26.7 years) tracks. Similar differences across tracks can be obtained for the age at birth of the first child. Fifth, at the time of the interview (i.e. ten to twenty years after graduation), the share of individuals without children is ten percentage points higher in the academic track than in the basic track.

Next, we examine the patterns of family formation between the tracks in more detail. Figures 2a and 2b show that the higher the school track, the lower the probability to be married or to have a first child at any given age.<sup>14</sup> This observation is in line with both the human capital effect of education and the duration effect of education.<sup>15</sup> It is striking that the differences between individuals in basic and middle tracks are smaller compared to the differences between middle and academic tracks. This reflects that the length of the education phase is more similar between individuals in basic (eight to nine years) and middle tracks (ten years) than individuals in the academic track (thirteen years). Moreover, the graphs are also in line with the lock-in effect of schooling. Individuals in the academic track are clearly less likely to be married or to have a first child before the age of 19, the age when they finish secondary education. When accounting for the different lengths of secondary schooling (as in Figure 2c and Figure 2d), the differences between the tracks are still existing, which is in line with the human capital effect of education. However, the differences get much smaller, providing suggestive evidence for the duration effect of education.

#### 4. Empirical strategy

To identify the effect on family formation of shortening the education phase through the introduction of short school years, we estimate the following difference-in-differences (DiD) equation separately for each track  $J$ , with  $J \in \{basic, middle, academic\}$ :

$$Y_{isc}^J = \beta^J SSY_{sc}^J + \gamma_s^J + \lambda_c^J + X_{isc}' \delta^J + \varepsilon_{isc}^J, \quad (2)$$

---

<sup>14</sup>These figures are based on our main sample, which includes respondents ten to twenty years after graduation. Therefore, the lines for the basic track ends at an earlier age compared to the other tracks. Figure A.1 in the Appendix displays the patterns of family formation separately for males and females. It is evident that women are more likely than males to marry and to have a first child at younger ages. We examine effect differences between males and females in Section 7.

<sup>15</sup>The differences are also in line with a pure selection effect in the sense that individuals with preferences for earlier marriage and earlier parenthood select themselves into lower tracks.



where  $Y_{isc}$  is the outcome for individual  $i$  in state  $s$  and school starting cohort  $c$ .  $SSY_{sc}$  denotes the variable of interest. Based on an individuals' school starting cohort and state, it takes on the value 1 if an individual is exposed to two SSY and the value 0 if an individual is not exposed to SSY (see Section 3.2 for a detailed description of the exposure of different cohorts in the different states to short school years). Hence,  $\beta$  denotes the effect of being exposed to two SSY, which is equivalent to graduating about two-thirds of a school year earlier.  $\gamma_s$  and  $\lambda_c$  are fixed effects for state and school starting cohorts, respectively, thus taking into account general differences in the outcomes between states and across school starting cohorts.  $X_{isc}$  is a vector of pre-determined individual characteristics. In the baseline specification, it includes a gender dummy and fixed effects for the wave of the Micro Census and, in our main specification, it includes interactions between the gender dummy and the fixed effects for cohort, state, and wave. Finally,  $\varepsilon_{isc}^J$  denotes the error term that is allowed to be clustered at the cohort-state level, i.e. the level the treatment variable is assigned.

We estimate Equation (2) separately by track for several reasons. First, the pattern of family formation differs between individuals across the three tracks in the sense that individuals in the basic track get married earlier and also give birth to children earlier (see Figure 2). Second, other reforms (in particular, the compulsory schooling reforms) implemented in a similar time period affected only specific tracks. Estimating the regressions separately for each track, allows for considering these other reforms more easily (see Section 6). Third, different cohorts are affected by SSY in the different tracks due to the differences in the number of years needed for graduation.

Our DiD identification strategy assumes that the track-specific family-formation outcomes would have evolved in parallel in the treated and control states, if SSY were not introduced. This common trend assumption could be violated if SSY exposure provoked parents to move to control states. Since the decisions on the SSY introduction were made at the beginning of 1966 and were communicated shortly before its implementation, it is unlikely that parents would have had enough time to move to avoid SSY exposure for their children. Further, moving across states is rather costly for families.

## 5. Results

We begin our discussion of the results by looking at the effect of the short school years on the probability to be married several years after graduation. We focus on the estimates for  $\beta$  from Equation (2), the SSY effects. Column (1) of Table 2 suggests that being exposed to two short school years (i.e. graduating about two-thirds of a school year earlier) increases the probability to be married five years after graduation for individuals in the basic track by 0.4

percentage points (pp). This effect is just beyond borderline significance at the 10% level and does not change substantially with the inclusion of gender-specific fixed effects for cohort, state, and wave (column 2). The marriage effect for individuals in the basic track remains statistically insignificant eight and ten years after graduation (columns 3-6). However, for individuals in the middle and academic tracks, the probability to be married five years after graduation increases substantially and significantly. While we see that the effects wash out over time, they are still statistically significant eight and ten years after graduation. The effect for the academic track decreases from 4.6 pp (five years after) to 4.1 pp (eight years after) and to 2.5 pp (ten years after), while in the middle track it remains 3.7 pp five years and eight years after, then decreases to 2.6 pp.

Next, we focus on SSY effects on the probability to have a first child five, eight, and ten years after graduation (Panel B). For individuals in the basic track, the earlier graduation due to SSY does not appear to result in increased probabilities to have a first child five, eight, or ten years after graduation. This is similar for individuals in the middle track, although the effect ten years after graduation is borderline significant. For individuals in the academic track affected by SSY, the probability to have a first child increases by about 3 pp eight and ten years after graduation.

While Table 2 focuses on three specific years after graduation, Figure 3 graphically shows the effects separately for one to ten years after graduation. In all three tracks, we observe a hump-shaped pattern for the marriage outcome: SSY exposure increases the probability to be married for the first years after graduation, but the effect fades over time. There is also evidence that SSY exposure significantly affects individuals in the basic track but only up to four years after graduation. For the fertility outcome, the point estimates are generally positive for the basic and middle tracks but statistically insignificant. However, for individuals in the academic track, SSY exposure does not only affect the timing of marriage, but also the timing of fertility: In Panel (f) of Figure 3 the point estimate is statistically significant for four to ten years after graduation.<sup>16</sup>

Taken together, Table 2 and Figure 3 provide evidence that earlier graduation affects the timing of marriage for individuals across tracks, but that it shifts forward the birth of the

---

<sup>16</sup>Similar to Humlum et al. (2017), our main specification focuses on years after graduation and not on specific ages. When estimating the effects by age instead of years after graduation (see Table A.2 in the Appendix), we obtain similar results. The marriage effect first kicks in for individuals in the basic track with significant coefficients at ages 16-19, while for the middle track the largest point estimates are obtained at ages 20-25 and for the academic track at ages 23-27. The higher the education, the later the strongest effects. At age 29, the marriage effects remain significant only for the academic track. Panel B of this table shows significant fertility effects in the academic track for ages 21-29.

first child mainly for individuals in the academic track. In the following, we discuss some explanations for these patterns. Once an individual enters the labor market, the German tax system induces strong incentives for getting married. For example, Germany’s combination of progressive taxes and joint taxation (*Ehegattensplitting*) provides large financial benefits for married couples – in particular, for spouses with strongly differing income – and the social health insurance in Germany allows for insuring (non-working) spouses without cost. These incentives affect individuals in all three school tracks and, therefore, might explain why we find that individuals prepone marriage across tracks. Regarding the differential fertility response, Figure 2 provides evidence that the age at first birth is much higher for individuals in the academic track compared to individuals in the other tracks. Therefore, the fertility response to an earlier labor market entry might be stronger for individuals in this group, e.g., because they are closer to the biological age limit for childbirth or because they prefer that the age does not differ too much between parents and children.

## 6. Sensitivity analysis

Table 3 examines the sensitivity of our findings to alternative age, wave, and state restrictions.<sup>17</sup> In our main specification, we construct the outcome variables based on information provided ten to twenty years after graduation. We set the lower bound to ten years in order to have a constant sample for five, eight, and ten years after graduation. Further, we do not include information from more than twenty years after graduation, as the more years after graduation we include, the more likely it is that marriages have been dissolved and/or children have moved out of the household. At the same time, a larger number of observations would increase the precision of our estimates. Hence, there is a bias-variance trade-off.

In the following, we analyze whether our results are robust to alternative ways of dealing with this bias-variance trade-off. Column (2) considers information by individuals ten to fifteen years after graduation, while column (3) considers information eight to twenty years after graduation. Column (4) includes only information by individuals eight to fifteen years after graduation, and column (5) relies on information provided between age 30 and 40. The next two sensitivity analysis restrict the sample to fewer waves. Column (6) drops the last two waves (2002 and 2003) and column (7) disregards the first two waves (1976 and 1978). Columns (8) and (9) relate to the number of included states. Column (8) drops Lower Saxony

---

<sup>17</sup>This table presents the results for marriage and first birth eight years after graduation, tables A.3 and A.4 in Appendix A show the results for five and ten years after graduation, respectively.

from the analysis, where SSY exposure was track-specific (see Section 2), while column (9) additionally includes Saarland, which was excluded in the main analyses due to earlier shifts of the start of the school year that affected many school starting cohorts in this particular state. Column (10) uses individuals' birth years (1945-1963) to identify treatment status by assuming a start of primary school in the year individuals turn seven, similar to the approach of Pischke (2007), but leaving all other sample restrictions unchanged. Column (11) clusters the standard errors at the level of the federal state and not at the state-cohort level. Our conclusions are insensitive to all the alternative specifications in Table 3.

In Appendix Table A.5, we deal with alternative cohort restrictions. First, we also include cohorts that were affected by SSY exposure in primary school. Second, we exclusively consider cohorts with two SSY and disregard cohorts with only one SSY. Third, we exclude the last pre-treatment cohort as the treatment status in this cohort would be wrongly assigned for individuals who repeated a grade. Again, our results are robust to these alternative specifications.

Co-treatments in the form of other policies are one threat to our identification strategy. For this reason, we excluded the school starting cohorts 1950 and 1951 (birth cohorts 1943 and 1944) from our main analysis. While these cohorts were included in previous SSY studies (Pischke, 2007; Braakmann, 2010), they were affected by reductions in the length of specific school years in four federal states (Baden-Württemberg, Bremen, Saarland, and West Berlin) due to moving the start of the school year from fall to Easter in line with the Düsseldorf Accord (DA) in 1955 (see also Footnote 2 and Figure B.1). We aim to only identify variations in the length of the schooling phase induced by the 1966/67 short school years, for which previous studies show that they did not hamper human capital accumulation. That is why we excluded Saarland completely from the main analysis: in this state, later cohorts were also affected by other changes in the length of the schooling phase.

Further, during our observation period, several states increased compulsory schooling from eight to nine years. This change mainly affected the basic track, as the regular school length is ten years in the middle track and thirteen years in the academic track. However, previous studies use two slightly different sets of compulsory schooling reform dates (we discuss this in more detail in Appendix B). Therefore, we searched for the original law texts and propose refined reform dates, which we display together with the primary sources in Tables B.1-B.11 and Table B.12 in Appendix B. We use these reform dates to assign to each cohort in each state the compulsory number of school years. Table A.6 shows the results for the basic track when we control for compulsory schooling reforms using our refined dates

or other reform dates. Controlling for compulsory schooling does not change our results meaningfully – irrespective of the used set of reform dates.

## 7. Further results

This section presents different sets of additional results on (i) effect differences by gender; (ii) longer time horizons; (iii) the exact timing of marriage and parenthood; and (iv) subsequent births.

### 7.1. Gender-specific results

Thus far, we pool the effects for males and females. Table 4 splits the sample according to an individual’s gender. It shows that the obtained marriage and fertility effects are driven by both males and females. Generally, the effects for five years after graduation are slightly larger for females than for males. One reason for this might be that females are, on average, younger than males when they marry and have children (see also Figure A.1). For instance, about 30% of middle track women in our sample are married five years after graduation, while the corresponding share is only 12% for men. The effect differences between women and men become smaller eight and ten years after graduation, i.e. when men are also more likely to be married and have a first child.

### 7.2. Long-run effects

To analyze whether SSY affect only the timing of family formation or also the probability to ever marry/have children, this subsection focuses on longer time horizons. More specifically, Table 5 looks at family formation 10 to 15 years after graduation.<sup>18</sup> The table shows a striking pattern: The longer the considered time horizon, the smaller the previously significant effects. For instance, while individuals in the middle track are 2.6 percentage points more likely to marry in the first ten years after graduation due to SSY exposure, this effect decreases to 1.8 percentage points twelve years after graduation and to 0.1 percentage points fifteen years after graduation. Similar patterns can be observed in the other panels that previously exhibited significant effects. All-in-all, Table 5 suggests that the SSY introduction affected the timing of marriage and parenthood, but not the probability to ever marry or become a parent. Therefore, the short school years are rather a “tempo policy” (Lutz and Skirbekk, 2005) as they basically affect the timing of family formation.

---

<sup>18</sup>While our main analyses focuses on the reports of individuals 10 to 20 years after graduation, these analyses consider reports of individuals  $p$  to 20 years after graduation, where  $p \in [10, 15]$  is the number of years until which the event could have taken place in the respective analysis. Therefore, the number of observations differs across the specifications in Table 5.

### 7.3. Exact timing of marriage and parenthood

While the previous analyses focus on the probability of family formation *at or before* a specific point in time, the next analysis looks at the probability of family formation *at* a specific point in time.<sup>19</sup> This analysis helps to better understand the effects of SSY exposure on the exact timing of marriage and parenthood. Figure 3 graphically presents the associated results. Generally, the largest positive point estimates for marriage are found in periods when marriage is most likely (compare Figure 2c). Interestingly, significant and positive point estimates for marriage precede negative coefficients in all three tracks. For instance, individuals in the academic track are significantly *more* likely to marry in the second, third, fourth, and fifth years after graduation due to SSY exposure, while they are significantly *less* likely to marry in the eighth and ninth years after graduation. This shows that the control cohorts are catching-up over time and that the head start of the treated cohorts declines over time, suggesting similar effects to the findings in the previous subsection that SSY exposure affects the timing of marriage, but not the overall probability to ever marry. Moreover, this pattern also shows why point estimates in our main specification (with cumulative marriage rates) are higher five years after graduation than ten years after graduation. For parenthood, all coefficients for  $t \in [2, 9]$  years after graduation are clearly positive and some coefficients are significant at the 10% level. Moreover, the magnitude of the coefficients declines for  $t \in [8, 10]$  years after graduation, suggesting a similar pattern as for the marriage outcomes.

### 7.4. Subsequent births

The following analysis examines whether short school years also affected the timing of the birth of the second child. For this analysis, we use the same sample as in the main specification but redefine the outcome variable from Equation (1) in such a way that it only takes on the value of 1 if *two* children were born at or before a specific point in time (instead of just one child). Table 6 provides evidence that SSY exposure increased the probability for individuals in the academic track to have two children eight to ten years after graduation by about 1.5 percentage points. As expected, the point estimates are smaller than the effects for the first child (compare Figure 3) and they turn significant only for later years. There is also some evidence for positive effects in the middle track, but the effects are smaller and only borderline significant. We refrain from examining higher order parities or completed

---

<sup>19</sup>For this analysis, we redefine our outcome variables from Equation (1) as

$$Y^{e,p} = \begin{cases} 1 & \text{if event } e \text{ in } t = p \\ 0 & \text{otherwise.} \end{cases}$$

fertility as we only observe children who are still living in the household of their parents (see also the discussion in Section 3). For these outcomes, measurement error would not only be much larger but also potentially systematic.

## 8. Discussion and conclusion

This study examines the effects on the timing of fertility and marriage of a policy that allowed students to finish secondary school about eight months earlier – with the same degree and the same curriculum taught. We find that earlier graduation leads to earlier marriages. There is also evidence that the earlier graduation affects the timing of childbirth. We find that the effects fade over time, indicating that the short school years affected the timing of marriage and parenthood but not the probability to ever marry or to become a parent. We further show that the obtained effects are driven by both males and females and that the reform affected also the probability to have a second child within the first ten years after graduation.

Our findings highlight that policies altering the duration of specific life phases can affect the timing of marriage and childbirth. This is relevant for both academic and political discussions. Our study contributes to the literature on policies that affect family formation by highlighting the importance of unintended consequences of policies that reduce or extend specific life phases. Our study also contributes to the literature on the relationship between education and family formation by proposing the “duration effect” as a third mechanism, how education might causally affect family formation. While the previous literature focuses on human capital effects and lock-in effects, the duration effect is so far neglected. We provide evidence that education influences family formation through its effect on the timing of subsequent life phases that individuals typically traverse before forming families. Another contribution of this study is the compilation of relevant education reforms in West Germany and the respective law sources, which can be also used by other researchers.

Our findings carry also important messages for policymakers. On the one hand, policymakers should be aware of the consequences for family formation when discussing policies that affect the duration of specific life phases (e.g., changing the duration of compulsory military service, secondary schooling, or university education). On the other hand, our study highlights that these policies might offer a tool for policymakers who would like to change the timing of family formation. Both aspects are particularly relevant, given that not only is the age at marriage and age of first birth increasing in many countries, but the duration of the education phase is also increasing.

## References

- Alm, J. and L. A. Whittington (1997). Income taxes and the timing of marital decisions. *Journal of Public Economics* 64(2), 219–240.
- Backhaus, H. (1963). *Das neunte Schuljahr: Eine Darstellung des Bestandes, der Versuche und der Diskussion*. Heidelberg: Quelle & Meyer.
- Baker, M., J. Kantarevic, and E. Hanna (2004). The married widow: Marriage penalties matter! *Journal of the European Economic Association* 2(4), 634–664.
- Bauer, T. K., S. Bender, A. R. Paloyo, and C. M. Schmidt (2012). Evaluating the labor-market effects of compulsory military service. *European Economic Review* 56(4), 814–829.
- Bauernschuster, S., T. Hener, and H. Rainer (2016). Children of a (Policy) Revolution: the Introduction of Universal Child Care and Its Effect on Fertility. *Journal of the European Economic Association* 14(4), 975–1005.
- Becker, G. S. (1981). *A Treatise on the Family*. Cambridge, MA: Harvard University Press.
- Billari, F. C., A. C. Liefbroer, and D. Philipov (2006). The Postponement of Childbearing in Europe: Driving Forces and Implications. *Vienna Yearbook of Population Research* 4, 1–17.
- Billari, F. C., P. Manfredi, and A. Valentini (2000). Macro-demographic effects of the transition to adulthood: Multistate stable population theory and an application to Italy. *Mathematical Population Studies* 9(1), 33–63.
- Björklund, A. (2006). Does family policy affect fertility?: Lessons from Sweden. *Journal of Population Economics* 19(1), 3–24.
- Black, S. E., P. J. Devereux, and K. G. Salvanes (2008). Staying in the classroom and out of the maternity ward? The effect of compulsory schooling laws on teenage births. *Economic Journal* 118(530), 1025–1054.
- Black, S. E., P. J. Devereux, and K. G. Salvanes (2011). Too young to leave the nest? The effects of school starting age. *The Review of Economic Studies* 93(May), 455–467.
- Blossfeld, H.-P. and A. D. Rose (1992). Educational Expansion and Changes in Entry into Marriage and Motherhood. The Experience of Italian Women. *Genus* 48(3/4), 73–91.
- Braakmann, N. (2010). A note on the causal link between education and health - Evidence from the German short school years. *University of Lüneburg Working Paper Series in Economics* 176.
- Cherlin, A. J. (2003). Should the government promote marriage? *Contexts* 2(4), 22–29.



- Currie, J. and E. Moretti (2003). Mother’s education and the intergenerational transmission of human capital: Evidence from college openings. *Quarterly Journal of Economics* 118(4), 1495–1532.
- Cygan-Rehm, K. (2016). Parental leave benefit and differential fertility responses: evidence from a German reform. *Journal of Population Economics* 29(1), 73–103.
- Cygan-Rehm, K. (2018). Is additional schooling worthless? Revising the zero returns to compulsory schooling in Germany. *CESIFO Working Papers Series 7191*.
- Cygan-Rehm, K. and M. Maeder (2013). The effect of education on fertility: Evidence from a compulsory schooling reform. *Labour Economics* 25, 35–48.
- Devereux, P. J. and G. Tripathi (2009). Optimally combining censored and uncensored datasets. *Journal of Econometrics* 151(1), 17–32.
- Díaz-Giménez, J. and E. Giolito (2013). Accounting for the timing of first marriage. *International Economic Review* 54(1), 135–158.
- Dustmann, C., P. A. Puhani, and U. Schönberg (2017). The Long-term Effects of Early Track Choice. *Economic Journal* 127(603), 1348–1380.
- Fink, A. (2020). German income taxation and the timing of marriage. *Applied Economics* 52(5), 475–489.
- Fort, M., N. Schneeweis, and R. Winter-Ebmer (2016). Is Education Always Reducing Fertility? Evidence from Compulsory Schooling Reforms. *Economic Journal* 126(595), 1823–1855.
- Fort, M., N. E. Schneeweis, and R. Winter-Ebmer (2011). More Schooling, More Children: Compulsory Schooling Reforms and Fertility in Europe. *IZA Discussion Paper Series 6015*.
- Frimmel, W., M. Halla, and R. Winter-Ebmer (2014). Can Pro-Marriage Policies Work? An Analysis of Marginal Marriages. *Demography* 51(4), 1357–1379.
- Froese, L. (1969). *Bildungspolitik und Bildungsreform: Amtliche Texte und Dokumente zur Bildungspolitik im Deutschland der Besatzungszonen, der Bundesrepublik Deutschland und der Deutschen Demokratischen Republik* (Goldmanns ed.). München: Goldmann.
- Gauthier, A. H. (2007). The impact of family policies on fertility in industrialized countries: a review of the literature. *Population Research and Policy Review* 26(3), 323–346.
- German Federal Statistical Office (1967). I. Allgemeinbildende Schulen: Kurzschuljahr 1966/67. Fachserie A: Bevölkerung und Kultur. Reihe 10 Bildungswesen. Technical report, W. Kohlhammer Verlag, Stuttgart.
- Grönqvist, H. and C. Hall (2013). Education policy and early fertility: Lessons from an expansion of upper secondary schooling. *Economics of Education Review* 37, 13–33.

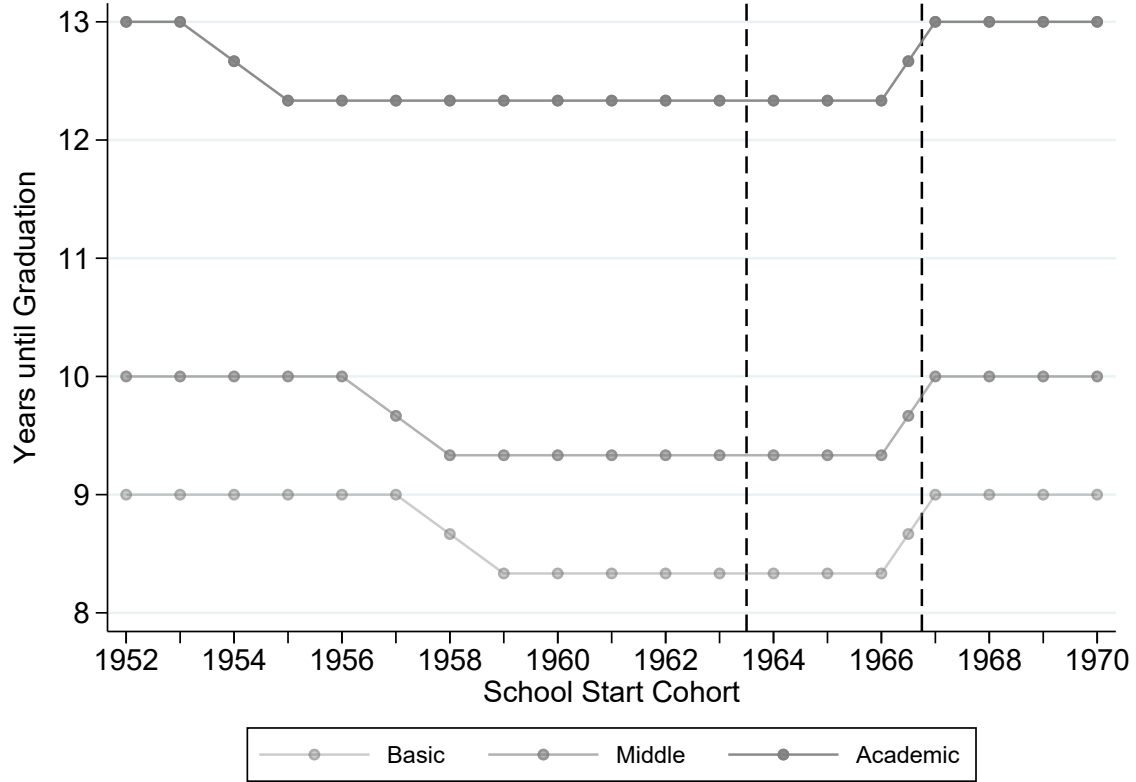
- Gustafsson, S. (2001). Optimal age at motherhood. Theoretical and empirical considerations on postponement of maternity in Europe. *Journal of Population Economics* 14(2), 225–247.
- Hahm, S. and J. Kluve (2019). Better with Bologna? Tertiary education reform and student outcomes. *Education Economics* 27(4), 425–449.
- Halla, M., M. Lackner, and J. Scharler (2016). Does the Welfare State Destroy the Family? Evidence from OECD Member Countries. *Scandinavian Journal of Economics* 118(2), 292–323.
- Hampf, F. (2019). The Effect of Compulsory Schooling on Skills: Evidence from a Reform in Germany. *ifo Working Paper Series* 313.
- Helbig, M. and R. Nikolai (2015). *Die Unvergleichbaren. Der Wandel der Schulsysteme in den deutschen Bundesländern seit 1949*. Bad Heilbrunn: Klinkhardt.
- Hodsdon, P. J. and M. M. Marini (2019). Effects of the Timing of Marriage and First Birth of the Spacing of Subsequent Births. *Demography* 18(4), 529–548.
- Huebener, M. (2018). The Effects of Education on Health: An Intergenerational Perspective. *IZA Discussion Paper Series* 11795.
- Huebener, M. and J. Marcus (2017). Compressing instruction time into fewer years of schooling and the impact on student performance. *Economics of Education Review* 58, 1–14.
- Huinink, J. and M. Kohli (2014). A life-course approach to fertility. *Demographic Research* 30(1), 1293–1326.
- Humlum, M. K., J. H. Kristoffersen, and R. Vejlin (2017). College admissions decisions, educational outcomes, and family formation. *Labour Economics* 48, 215–230.
- Imbens, G. and W. van der Klaauw (1995). Evaluating the cost of conscription in the Netherlands. *Journal of Business and Economic Statistics* 13(2), 207–215.
- Jejeebhoy, S. J. (1995). *Women’s Education, Autonomy, and Reproductive Behaviour: Experience from Developing Countries*. OUP Catalogue. Oxford University Press.
- Jürges, H., S. Reinhold, and M. Salm (2011). Does schooling affect health behavior? Evidence from the educational expansion in Western Germany. *Economics of Education Review* 30(5), 862–872.
- Kamhöfer, D. A. and M. Westphal (2019). Fertility Effects of College Education: Evidence from the German Educational Expansion. *DICE Discussion Paper Series* 316.
- Kemptoner, D., H. Jürges, and S. Reinhold (2011). Changes in compulsory schooling and the causal effect of education on health: Evidence from Germany. *Journal of Health Economics* 30(2), 340–354.

- Kluge, J. and S. Schmitz (2018). Back to Work: Parental Benefits and Mothers' Labor Market Outcomes in the Medium Run. *ILR Review* 71(1), 143–173.
- KMK (1962). Schuljahresbeginn - Frühjahr oder Herbst? Dokumentation. Technical report, Standing Conference of the Ministers of Education and Cultural affairs of the Länder in the Federal Republic of Germany.
- Krapf, S. and M. Kreyenfeld (2015). Fertility assessment with the own-children method: A validation with data from the German Mikrozensus. Technical report, Max Planck Institute for Demographic Research, Rostock.
- Lalive, R. and J. Zweimüller (2009). How does Parental Leave affect Fertility and Return to Work? Evidence from two Natural Experiments. *The Quarterly Journal of Economics* 124(8210), 3.
- Larsen, U. and J. W. Vaupel (1993). Hutterite fecundability by age and parity: strategies for frailty modeling of event histories. *Demography* 30(1), 81–102.
- Leschinsky, A. and P. M. Roeder (1980). Didaktik und Unterricht in der Sekundarstufe I seit 1950. Entwicklung der Rahmenbedingungen. In Max-Planck-Institut für Bildungsforschung: Projektgruppe Bildungsbericht (Ed.), *Bildung in der Bundesrepublik Deutschland. Daten und Analysen. Bd.1: Entwicklungen seit 1950*, Chapter VI A, pp. 283–391. Hamburg and Stuttgart.
- Lutz, W. and V. Skirbekk (2005). Policies Addressing the Tempo Effect in Low-Fertility Countries. *Population and Development Review* 31(4), 699–720.
- Marcus, J. and V. Zambre (2019). The effect of increasing education efficiency on university enrollment: Evidence from administrative data and an unusual schooling reform in Germany. *Journal of Human Resources* 54(2), 468–502.
- Margaryan, S., A. Paul, and T. Siedler (2020). Does Education Affect Attitudes towards Immigration? Evidence from Germany. *Journal of Human Resources* (forthcoming).
- McCrary, J. and H. Royer (2011). the Effect of Female Education on Fertility and Infant Health: Evidence From School Entry Policies Using Exact Date of Birth. *American Economic Review* 101(1), 158–195.
- Monstad, K., C. Propper, and K. G. Salvanes (2008). Education and fertility: Evidence from a natural experiment. *Scandinavian Journal of Economics* 110(4), 827–852.
- Mörk, E., A. Sjögren, and H. Svaleryd (2013). Childcare costs and the demand for children—evidence from a nationwide reform. *Journal of Population Economics* 26(1), 33–65.
- Myrskylä, M. and A. Fenelon (2012). Maternal Age and Offspring Adult Health: Evidence From the Health and Retirement Study. *Demography* 49(4), 1231–1257.

- OECD (2019). Family Database SF2.3: Age of mothers at childbirth and age-specific fertility. Technical report, OECD-Social Policy Division.
- Oppenheimer, V. K. (1997). Women’s Employment and the Gain to Marriage: The Specialization and Trading Model. *Annual Review of Sociology* 23(1), 431–453.
- Persson, P. (2020). Social insurance and the marriage market. *Journal of Political Economy* 128(1), 252–300.
- Petzold, H.-J. (1981). *Schulzeitverlängerung: Parkplatz oder Bildungschance? Die Funktion des 9. und 10. Schuljahres*. Bensheim: Päd.-Extra-Buchverlag.
- Piopiunik, M. (2011). Intergenerational Transmission of Education and Mediating Channels: Evidence from Compulsory Schooling Reforms in Germany. *ifo Working Paper Series* 107.
- Piopiunik, M. (2014). Intergenerational Transmission of Education and Mediating Channels: Evidence from a Compulsory Schooling Reform in Germany. *Scandinavian Journal of Economics* 116(3), 878–907.
- Pischke, J.-S. (2007). The impact of length of the school year on student performance and earnings: Evidence from the German short school years. *Economic Journal* 117(10), 1216–1242.
- Pischke, J.-S. and T. von Wachter (2005). Zero returns to compulsory schooling in Germany: Evidence and interpretation. *NBER Working Paper Series* 11414.
- Pischke, J.-S. and T. von Wachter (2008). Zero returns to compulsory schooling in Germany: Evidence and interpretation. *Review of Economics and Statistics* 90(3), 592–598.
- Raute, A. (2019). Can financial incentives reduce the baby gap? Evidence from a reform in maternity leave benefits. *Journal of Public Economics* 169, 203–222.
- RDC (2019). Microcensus Waves 1976-2003. Scientific Use Files. Technical report, Research Data Centres of the Federal Statistical Office and the Statistical Offices of the Länder.
- Rindfuss, R. R., D. K. Guilkey, S. P. Morgan, and Ø. Kravdal (2010). Child-care availability and fertility in Norway. *Population and Development Review* 36(4), 725–748.
- Siedler, T. (2010). Schooling and citizenship in a young democracy: Evidence from postwar Germany. *Scandinavian Journal of Economics* 112(2), 315–338.
- Silles, M. A. (2011). The effect of schooling on teenage childbearing: evidence using changes in compulsory education laws. *Journal of Population Economics* 24(2), 761–777.
- Skirbekk, V. (2008). Fertility trends by social status. *Demographic research* 18(5), 145–180.
- Tan, P. L. (2017). The impact of school entry laws on female education and teenage fertility. *Journal of Population Economics* 30(2), 503–536.

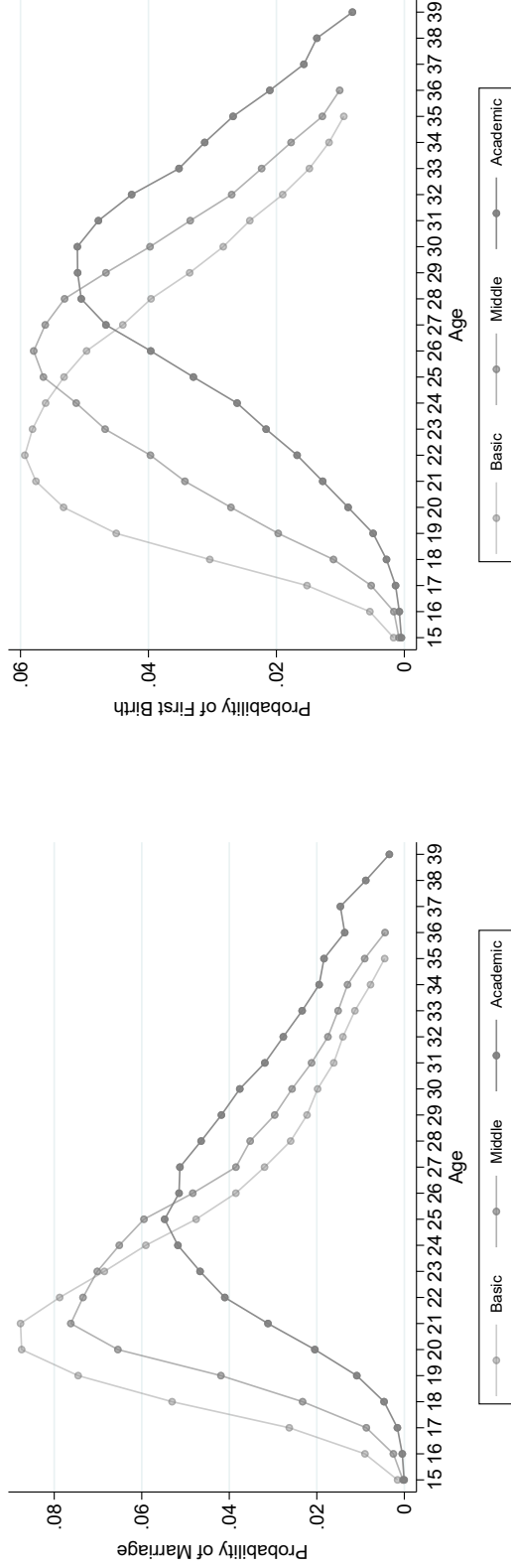
## Tables and Figures

Figure 1: Exposure to Short School Years by Secondary School Track and Cohort



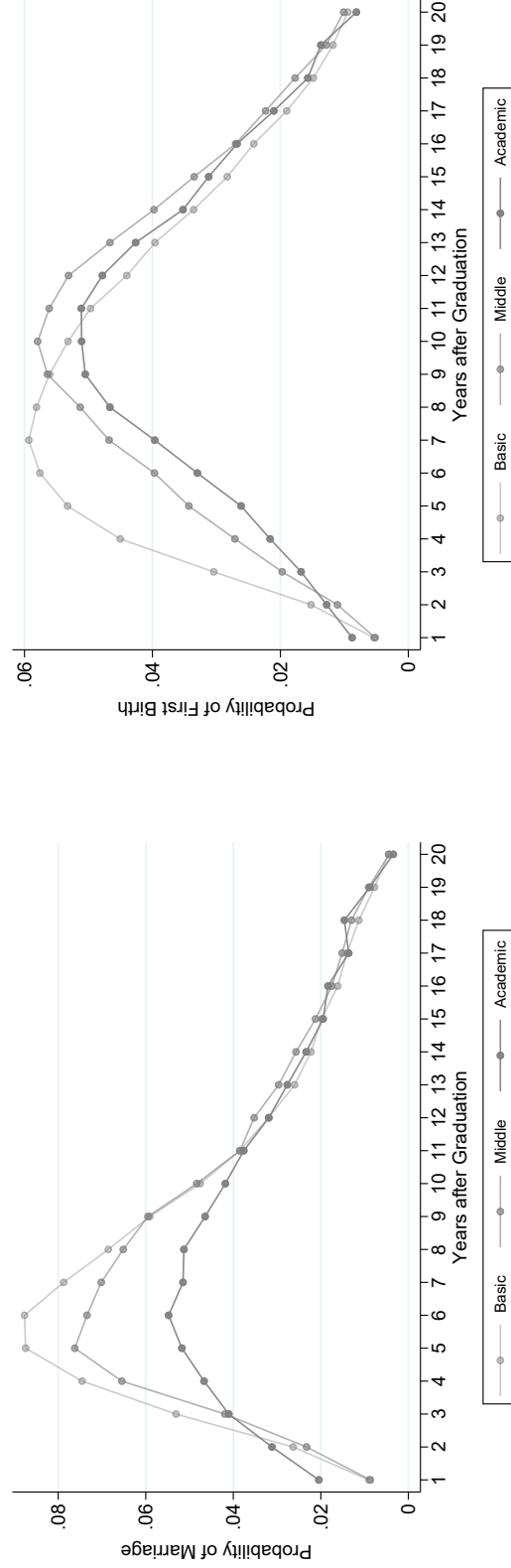
*Notes:* This stylized figure visualizes treatment identification in a given treatment state, depending on school start cohort and secondary school track. School starting cohorts within the dashed lines are cohorts that were affected by the short school years during primary school and that are excluded in our main analyses. Deviations from the regular school years required in each track (9 in basic, 10 in middle, and 13 in academic) imply exposure to short school years. Own calculations and graphical display.

Figure 2: Probability of Marriage and First Birth by Age and Years after Graduation



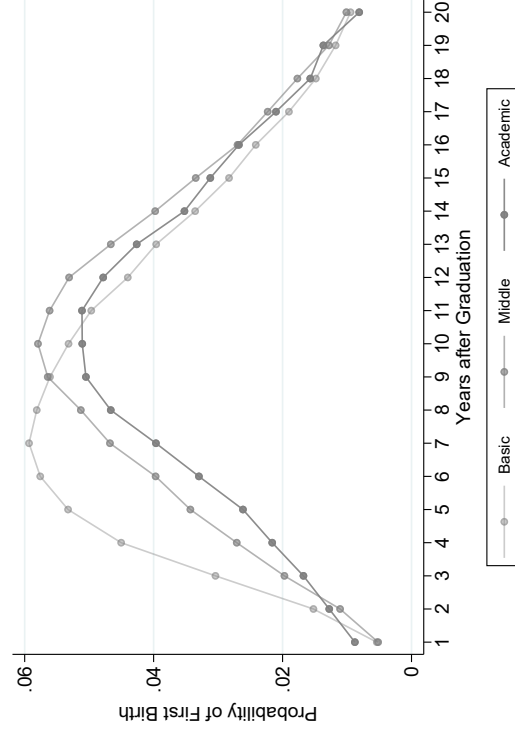
(a) Marriage by Age

(b) First Birth by Age



(c) Marriage by Years after Graduation

(b) First Birth by Age

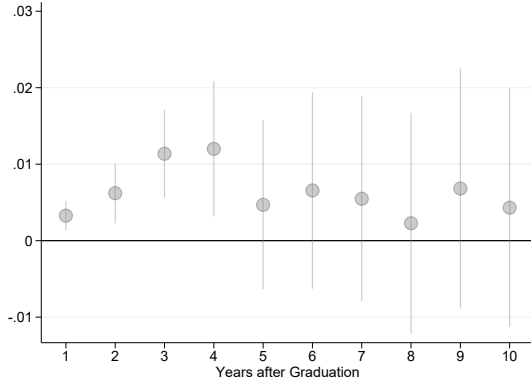


(d) First Birth by Years after Graduation

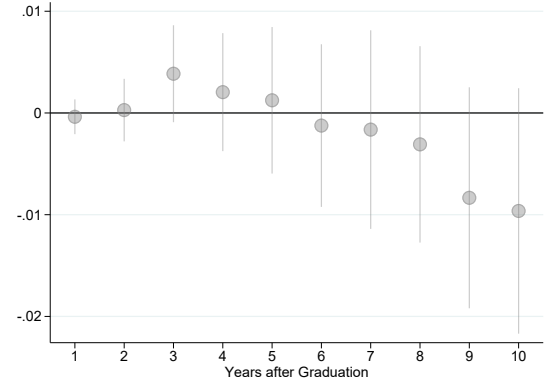
Notes: All four graphs show probabilities of being married and becoming a parent by age (Figures 2a and 2b) and by years after graduation (Figures 2c and 2d), using graduating ages for basic track at 15, for middle track at 16, and academic track at 19 as year 0. Source: Micro Census, main estimation sample. Own calculations and graphical display.

Figure 3: Effect of Short School Years on Marriage and First Birth

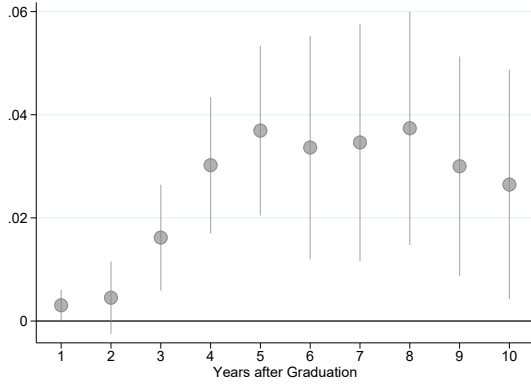
(a) Marriage - Basic



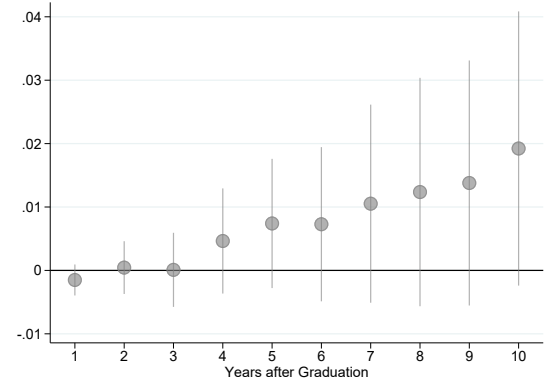
(b) First Birth - Basic



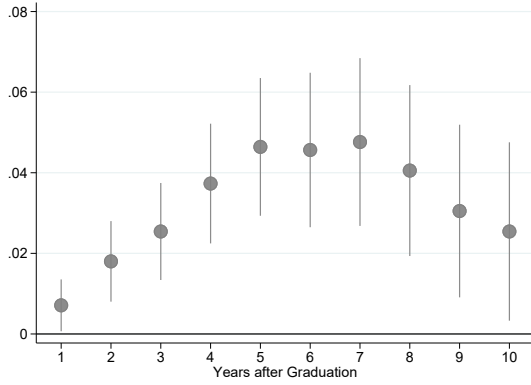
(c) Marriage - Middle



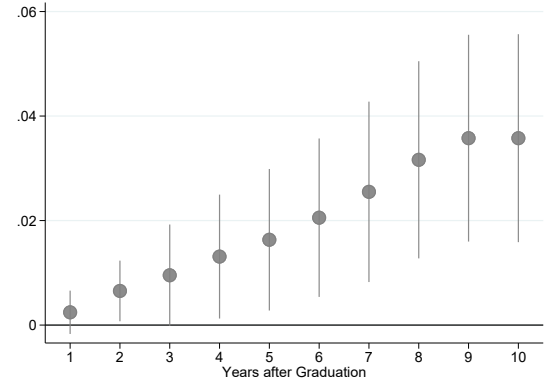
(d) First Birth - Middle



(e) Marriage - Academic



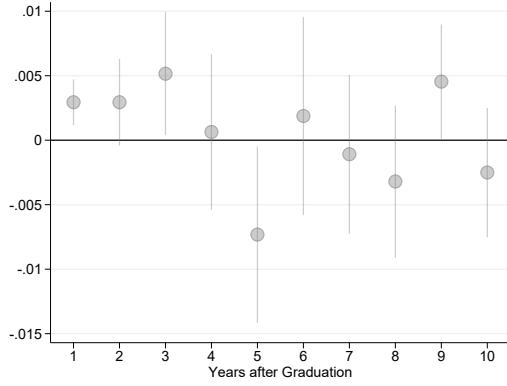
(f) First Birth - Academic



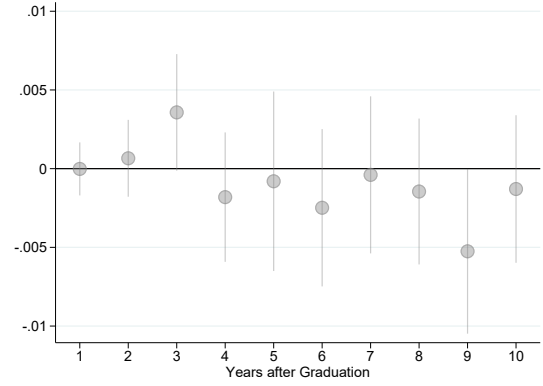
*Notes:* The graphs show the estimated short school year effects (and their 95% confidence intervals) *up* to different years after graduation. The underlying samples are identical to the samples in Table 2. All coefficients are based on Equation (2).

Figure 4: Effect of Short School Years *at* different Years after Graduation

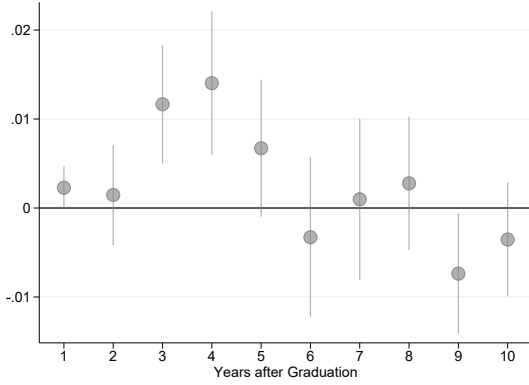
(a) Marriage - Basic



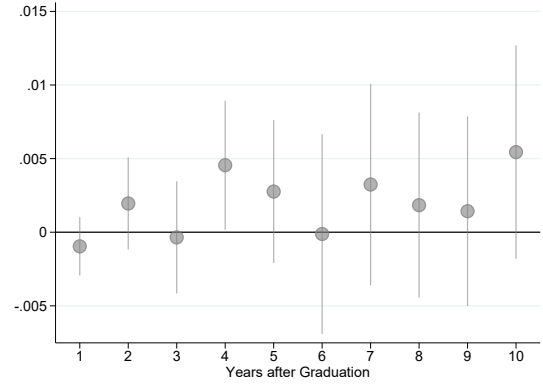
(b) First Birth - Basic



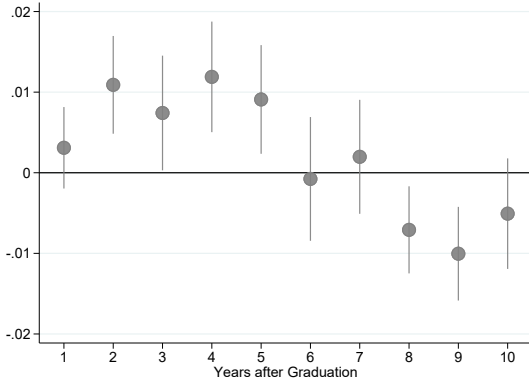
(c) Marriage - Middle



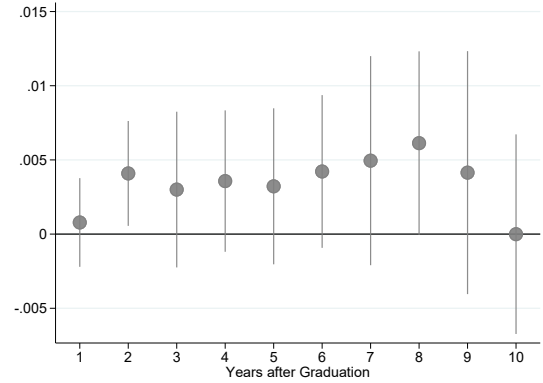
(d) First Birth - Middle



(e) Marriage - Academic



(f) First Birth - Academic



*Notes:* The graphs show the estimated short school year effects (and their 95% confidence intervals) *at* different years after graduation. The underlying samples are identical to the samples in Table 2 and all coefficients are based on Equation (2). The figure is related to Figure 3, which shows short school year effects *up* to different years after graduation.



Table 1: Summary Statistics by Secondary School Track

	Basic			Middle			Academic		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Female	0.49	0	1	0.58	0	1	0.42	0	1
Birthyear	1954.38	1945	1964	1956.54	1945	1964	1957.15	1945	1964
<i>Birthmonth</i>									
Jan-Apr	0.36	0	1	0.37	0	1	0.37	0	1
May-Dec	0.64	0	1	0.63	0	1	0.63	0	1
Age at Interview	30.75	25	35.5	31.93	26	36.5	34.89	29	39.5
School Start Year	1961.04	1952	1970	1963.19	1952	1970	1963.80	1952	1970
Years in School	8.53	8	9	9.85	9.33	10	12.79	12.3	13
<i>Marital Status</i>									
Single	0.22	0	1	0.25	0	1	0.32	0	1
Married	0.73	0	1	0.70	0	1	0.64	0	1
Widowed	0.00	0	1	0.00	0	1	0.00	0	1
Divorced	0.05	0	1	0.05	0	1	0.04	0	1
Age at Marriage	22.65	15.5	35.5	23.99	15.5	36.5	26.74	15.5	39.5
<i>Share Married</i>									
5 Years after Graduation	0.25	0	1	0.22	0	1	0.21	0	1
8 Years after Graduation	0.49	0	1	0.43	0	1	0.37	0	1
10 Years after Graduation	0.59	0	1	0.53	0	1	0.45	0	1
Age at First Birth	23.73	15	35.5	25.58	15	36.5	28.44	15	39.5
<i>Share First Birth</i>									
5 Years after Graduation	0.15	0	1	0.10	0	1	0.10	0	1
8 Years after Graduation	0.33	0	1	0.24	0	1	0.22	0	1
10 Years after Graduation	0.44	0	1	0.35	0	1	0.32	0	1
Childless at Interview	0.38	0	1	0.43	0	1	0.48	0	1

*Notes:* The table displays for relevant variables sample mean, minimum and maximum by secondary school track.

Table 2: Effect of Short School Years on Marriage and First Birth

	5 Years		8 Years		10 Years	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: Marriage</b>						
Basic	0.004 (0.006)	0.005 (0.006)	0.002 (0.007)	0.002 (0.007)	0.004 (0.008)	0.004 (0.008)
N	203,501	203,501	203,501	203,501	203,501	203,501
Middle	0.038*** (0.008)	0.037*** (0.008)	0.038*** (0.011)	0.037*** (0.011)	0.026** (0.011)	0.026** (0.011)
N	98,448	98,448	98,448	98,448	98,448	98,448
Academic	0.046*** (0.009)	0.046*** (0.009)	0.041*** (0.011)	0.041*** (0.011)	0.025** (0.011)	0.025** (0.011)
N	109,199	109,199	109,199	109,199	109,199	109,199
<b>Panel B: First Birth</b>						
Basic	0.001 (0.004)	0.001 (0.004)	-0.004 (0.005)	-0.003 (0.005)	-0.010 (0.006)	-0.010 (0.006)
N	203,501	203,501	203,501	203,501	203,501	203,501
Middle	0.008 (0.005)	0.007 (0.005)	0.013 (0.009)	0.012 (0.009)	0.019* (0.011)	0.019* (0.011)
N	98,448	98,448	98,448	98,448	98,448	98,448
Academic	0.016** (0.007)	0.016** (0.007)	0.032*** (0.010)	0.032*** (0.010)	0.036*** (0.010)	0.036*** (0.010)
N	109,199	109,199	109,199	109,199	109,199	109,199
School Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Sex FE	Yes	Yes	Yes	Yes	Yes	Yes
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
School Cohort-Sex FE	No	Yes	No	Yes	No	Yes
State-Sex FE	No	Yes	No	Yes	No	Yes
Wave-Sex FE	No	Yes	No	Yes	No	Yes

*Notes:* The table shows the effect of the short school years on marriage and first birth five, eight, and ten years after graduation from secondary school for individuals in different secondary school tracks based on Equation (2). Standard errors clustered at the cohort-state level in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 3: Robustness Checks - Alternative Age, Wave, State, and SE Specifications Eight Years after Graduation

Main		Other Age Restrictions			Wave Restrictions		State Restrictions		Birthyear	SE	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	-LS (8)	+SL (9)	(10)	(11)	
Panel A: Marriage											
Basic	0.002 (0.007)	0.005 (0.009)	0.007 (0.007)	0.012 (0.007)	-0.003 (0.007)	0.002 (0.007)	0.005 (0.007)	-0.006 (0.008)	0.003 (0.007)	0.005 (0.008)	0.002 (0.013)
N	203,501	99,250	228,149	123,898	237,942	203,501	166,094	180,009	207,963	192,430	203,501
Middle	0.037*** (0.011)	0.037** (0.014)	0.036*** (0.010)	0.035*** (0.011)	0.032*** (0.009)	0.037*** (0.011)	0.040*** (0.011)	0.043*** (0.014)	0.038*** (0.011)	0.029*** (0.010)	0.037*** (0.014)
N	98,448	44,503	111,614	57,669	118,417	98,448	89,000	86,245	99,807	89,226	98,448
Academic	0.041*** (0.011)	0.045*** (0.017)	0.044*** (0.012)	0.051*** (0.018)	0.035*** (0.010)	0.039*** (0.011)	0.039*** (0.010)	0.045*** (0.011)	0.040*** (0.011)	0.036*** (0.011)	0.041* (0.021)
N	109,199	51,566	122,504	64,871	113,732	103,698	106,139	98,348	110,756	97,768	109,199
Panel B: First Birth											
Basic	-0.003 (0.005)	0.005 (0.007)	-0.002 (0.005)	0.005 (0.007)	-0.015*** (0.006)	-0.003 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.003 (0.005)	-0.001 (0.005)	-0.003 (0.005)
N	203,501	99,250	228,149	123,898	237,942	203,501	166,094	180,009	207,963	192,430	203,501
Middle	0.012 (0.009)	0.007 (0.013)	0.013 (0.008)	0.009 (0.010)	-0.001 (0.007)	0.012 (0.009)	0.015* (0.009)	0.012 (0.010)	0.014 (0.009)	0.010 (0.009)	0.012 (0.008)
N	98,448	44,503	111,614	57,669	118,417	98,448	89,000	86,245	99,807	89,226	98,448
Academic	0.032*** (0.010)	0.052*** (0.012)	0.033*** (0.009)	0.050*** (0.012)	0.021** (0.009)	0.033*** (0.010)	0.030*** (0.009)	0.030*** (0.009)	0.033*** (0.010)	0.030*** (0.010)	0.032*** (0.008)
N	109,199	51,566	122,504	64,871	113,732	103,698	106,139	98,348	110,756	97,768	109,199
Years after Grad.	10-20	10-15	8-20	8-15	Age 30-40	10-20	10-20	10-20	10-20	10-20	10-20
Age Basic	25-35	25-30	23-35	23-30	30-40	25-35	25-35	25-35	25-35	25-35	25-35
Age Middle	26-36	26-31	24-36	24-31	30-40	26-36	26-36	26-36	26-36	26-36	26-36
Age Academic	29-39	29-34	27-39	27-34	30-40	29-39	29-39	29-39	29-39	29-39	29-39
Waves	1976-2003	1976-2003	1976-2003	1976-2003	1976-2003	1976-2001	1980-2003	1976-2003	1976-2003	1976-2003	1976-2003

*Notes:* The table shows the effect of the short school years eight years after graduation for various alternative specifications. Column (1) repeats the main specification for comparison, columns (2)-(5) rely on information provided in differing numbers of years after graduation, as indicated in the bottom part of the table. Column (6) disregards the last two waves of the Micro Census, and column (7) drops the first two waves. Columns (8)-(9) drop or include certain states from the analysis (Lower Saxony (LS), Saarland (SL), respectively). Column (10) relies on treatment assignment based on individual's birth year and column (11) on standard errors clustered at the state level. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 4: Effect Heterogeneity by Gender

	5 Years		8 Years		10 Years	
	Female (1)	Male (2)	Female (3)	Male (4)	Female (5)	Male (6)
<b>Panel A: Marriage</b>						
Basic	0.007 (0.009)	0.002 (0.004)	-0.005 (0.008)	0.009 (0.010)	-0.006 (0.008)	0.014 (0.011)
N	99,685	103,816	99,685	103,816	99,685	103,816
Middle	0.054*** (0.010)	0.013 (0.010)	0.042*** (0.013)	0.031** (0.014)	0.029*** (0.011)	0.023 (0.016)
N	57,381	41,067	57,381	41,067	57,381	41,067
Academic	0.035** (0.014)	0.055*** (0.010)	0.029** (0.014)	0.049*** (0.012)	0.015 (0.014)	0.033*** (0.013)
N	46,289	62,910	46,289	62,910	46,289	62,910
<b>Panel B: First Birth</b>						
Basic	0.000 (0.006)	0.002 (0.003)	-0.003 (0.008)	-0.003 (0.005)	-0.014* (0.008)	-0.005 (0.008)
N	99,685	103,816	99,685	103,816	99,685	103,816
Middle	0.010 (0.007)	0.004 (0.006)	0.018 (0.011)	0.005 (0.010)	0.023* (0.013)	0.014 (0.013)
N	57,381	41,067	57,381	41,067	57,381	41,067
Academic	0.022* (0.011)	0.012** (0.006)	0.033** (0.014)	0.031*** (0.009)	0.040*** (0.014)	0.033*** (0.010)
N	46,289	62,910	46,289	62,910	46,289	62,910

*Notes:* The table shows the effect of the short school years separately for males and females. Standard errors clustered at the cohort-state level in parentheses.  
\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 5: Short School Year Effects: Longer Time Horizons

		Years after Graduation					
		10	11	12	13	14	15
<b>Panel A: Marriage</b>							
Basic	0.004 (0.008)	-0.000 (0.008)	-0.003 (0.008)	-0.007 (0.009)	-0.006 (0.009)	-0.007 (0.009)	
N	203,501	188,330	173,232	157,588	140,755	122,803	
Middle	0.026** (0.011)	0.022** (0.009)	0.018* (0.010)	0.013 (0.009)	0.011 (0.010)	0.001 (0.009)	
N	98,448	91,869	84,934	77,690	69,823	61,960	
Academic	0.025** (0.011)	0.014 (0.010)	0.008 (0.009)	0.007 (0.009)	-0.001 (0.009)	-0.008 (0.010)	
N	109,199	101,972	94,829	87,503	78,097	68,785	
<b>Panel B: First Birth</b>							
Basic	-0.010 (0.006)	-0.012** (0.006)	-0.007 (0.007)	-0.005 (0.007)	-0.002 (0.007)	-0.002 (0.008)	
N	203,501	188,330	173,232	157,588	140,755	122,803	
Middle	0.019* (0.011)	0.015 (0.011)	0.020* (0.011)	0.024** (0.011)	0.020* (0.011)	0.012 (0.010)	
N	98,448	91,869	84,934	77,690	69,823	61,960	
Academic	0.036*** (0.010)	0.031*** (0.011)	0.027** (0.011)	0.025** (0.011)	0.020 (0.013)	0.017 (0.013)	
N	109,199	101,972	94,829	87,503	78,097	68,785	

*Notes:* The table shows the effect of the short school years on marriage and first birth ten to fifteen years after graduation from secondary school for individuals in different secondary school tracks based on Equation (2). Standard errors clustered at the cohort-state level in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 6: Effect of Short School Years on Second Birth

		Years after Graduation									
		1	2	3	4	5	6	7	8	9	10
<b>Second Birth</b>											
Basic	-0.000** (0.000)	-0.000* (0.000)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.000 (0.002)	0.003 (0.002)	0.003 (0.003)	0.001 (0.003)	-0.002 (0.004)	-0.003 (0.005)
N	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501
Middle	-0.000 (0.000)	-0.000 (0.000)	-0.002*** (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	0.003 (0.003)	0.007 (0.004)	0.010** (0.004)	0.013*** (0.005)
N	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448
Academic	-0.000 (0.000)	0.000 (0.001)	0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	0.003* (0.002)	0.007** (0.003)	0.007* (0.004)	0.013*** (0.005)	0.016*** (0.006)	0.016*** (0.007)
N	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199

Notes: Standard errors clustered at the cohort-state level in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## A. Appendix A: Additional Robustness Checks and Further Results

Figure A.1: Probability of Marriage and First Birth by Years after Graduation and Gender

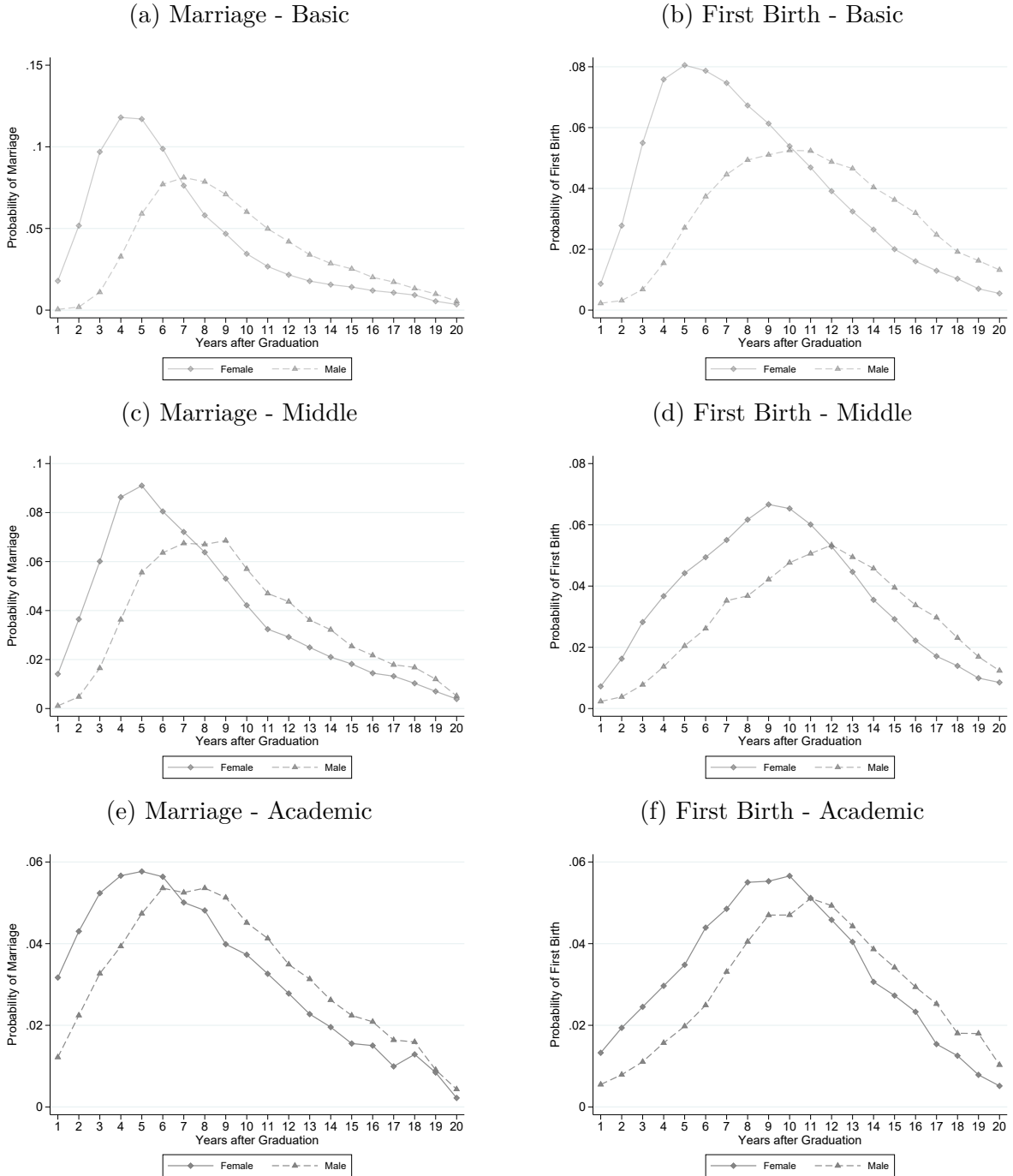


Table A.1: Effect of Short School Years  
on Wage and Employment

	<b>Main</b>	<b>Male</b>
	(1)	(2)
<b>Panel A: Wage</b>		
Pischke (2007)	0.017 (0.011)	0.001 (0.011)
N	723470	430859
Replication	0.014 (0.014)	-0.007 (0.015)
N	755093	454518
<b>Panel B: Employment</b>		
Pischke (2007)	0.016*** (0.006)	0.013* (0.007)
N	1032744	509770
Replication	0.020** (0.008)	0.015* (0.009)
N	1071256	536235

*Notes:* This table replicates wage and employment regressions using the same sample and wave restrictions as specified in Pischke (2007). Exposure to short school years is assigned according to secondary school track, birth cohort (1943-1964), and state of residence. The first row of each Panel displays estimation results taken from Table 5 and Table 8 in Pischke (2007), respectively. In Panel A, the dependent variable is the log hourly wage, in Panel B a dummy for being employed in the survey week. Standard errors in parentheses are adjusted at the track x birth year x state level.



Table A.2: Effect of Short School Years on Marriage and First Birth after Graduation from Secondary Schooling by Age

		Age													
		16	17	18	19	20	21	22	23	24	25	26	27	28	29
<b>Panel A: Marriage</b>															
Basic	0.003*** (0.001)	0.006*** (0.002)	0.011*** (0.003)	0.012*** (0.004)	0.005 (0.006)	0.007 (0.007)	0.005 (0.007)	0.002 (0.007)	0.007 (0.008)	0.004 (0.008)	-0.000 (0.008)	-0.003 (0.008)	-0.007 (0.009)	-0.007 (0.009)	-0.006 (0.009)
N	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	188,330	173,232	157,588	140,755
Middle	0.001	0.003** (0.002)	0.005 (0.004)	0.016*** (0.005)	0.030*** (0.007)	0.037*** (0.008)	0.034*** (0.011)	0.035*** (0.012)	0.037*** (0.011)	0.030*** (0.011)	0.026** (0.011)	0.022** (0.009)	0.018* (0.010)	0.013 (0.009)	0.013 (0.009)
N	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	91,869	84,934	77,690	77,690
Academic	0.000	0.001* (0.001)	0.002 (0.001)	0.004** (0.002)	0.007** (0.003)	0.018*** (0.005)	0.025*** (0.006)	0.037*** (0.008)	0.046*** (0.009)	0.046*** (0.010)	0.048*** (0.011)	0.041*** (0.011)	0.031*** (0.011)	0.025** (0.011)	0.025** (0.011)
N	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199
<b>Panel B: First Birth</b>															
Basic	-0.000 (0.001)	0.000 (0.002)	0.004 (0.002)	0.002 (0.003)	0.001 (0.004)	-0.001 (0.004)	-0.002 (0.005)	-0.003 (0.005)	-0.008 (0.006)	-0.010 (0.006)	-0.012** (0.006)	-0.007 (0.007)	-0.005 (0.007)	-0.002 (0.007)	-0.002 (0.007)
N	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	203,501	188,330	173,232	157,588	140,755
Middle	-0.001 (0.001)	-0.002 (0.001)	0.000 (0.002)	0.000 (0.003)	0.005 (0.004)	0.007 (0.005)	0.007 (0.006)	0.011 (0.008)	0.012 (0.009)	0.014 (0.010)	0.019* (0.011)	0.015 (0.011)	0.020* (0.011)	0.024** (0.011)	0.024** (0.011)
N	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	98,448	91,869	84,934	77,690	77,690
Academic	-0.000 (0.000)	-0.000 (0.001)	0.000 (0.001)	0.002 (0.002)	0.002 (0.002)	0.007** (0.003)	0.010* (0.005)	0.013** (0.006)	0.016** (0.007)	0.021*** (0.008)	0.025*** (0.009)	0.032*** (0.010)	0.036*** (0.010)	0.036*** (0.010)	0.036*** (0.010)
N	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199	109,199

Notes: The table shows the effect of the short school years by age instead of by years after graduation. All regressions include the same set of fixed effects as the main regression specification. Standard errors clustered at the cohort-state level in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.3: Robustness Checks - Alternative Age, Wave, State and SE Specifications *Five Years after Graduation*

Main		Other Age Restrictions			Wave Restrictions			State Restrictions		Birthyear	SE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	-LS (8)	+SL (9)	(10)	(11)
<b>Panel A: Marriage</b>											
Basic	0.005 (0.006)	0.006 (0.008)	0.009* (0.005)	0.012* (0.006)	-0.004 (0.005)	0.005 (0.006)	0.006 (0.006)	0.006 (0.006)	0.005 (0.006)	0.006 (0.005)	0.005 (0.005)
N	203,501	99,250	250,131	145,880	237,942	203,501	166,094	180,009	207,963	192,430	203,501
Middle	0.037*** (0.008)	0.039*** (0.011)	0.033*** (0.007)	0.032*** (0.009)	0.041*** (0.007)	0.037*** (0.008)	0.038*** (0.008)	0.041*** (0.009)	0.037*** (0.008)	0.030*** (0.008)	0.037*** (0.007)
N	98,448	44,503	127,077	73,132	118,417	98,448	89,000	86,245	99,807	89,226	98,448
Academic	0.046*** (0.009)	0.055*** (0.013)	0.042*** (0.009)	0.047*** (0.012)	0.039*** (0.008)	0.046*** (0.009)	0.044*** (0.008)	0.048*** (0.009)	0.047*** (0.009)	0.046*** (0.009)	0.046*** (0.014)
N	109,199	51,566	140,849	83,216	113,732	103,698	106,139	98,348	110,756	97,768	109,199
<b>Panel B: First Birth</b>											
Basic	0.001 (0.004)	0.007 (0.005)	0.002 (0.003)	0.005 (0.004)	-0.007* (0.004)	0.001 (0.004)	-0.001 (0.004)	0.001 (0.004)	0.002 (0.004)	0.003 (0.004)	0.001 (0.003)
N	203,501	99,250	250,131	145,880	237,942	203,501	166,094	180,009	207,963	192,430	203,501
Middle	0.007 (0.005)	0.008 (0.007)	0.008* (0.004)	0.008* (0.005)	0.004 (0.005)	0.007 (0.005)	0.009* (0.005)	0.007 (0.006)	0.008 (0.005)	0.008 (0.006)	0.007 (0.005)
N	98,448	44,503	127,077	73,132	118,417	98,448	89,000	86,245	99,807	89,226	98,448
Academic	0.016*** (0.007)	0.030*** (0.009)	0.010 (0.006)	0.016*** (0.008)	0.011* (0.006)	0.017*** (0.007)	0.015*** (0.007)	0.015*** (0.007)	0.017*** (0.007)	0.018*** (0.007)	0.016*** (0.006)
N	109,199	51,566	140,849	83,216	113,732	103,698	106,139	98,348	110,756	97,768	109,199
Years after Grad.	10-20	10-15	5-20	5-10	Age 30-40	10-20	10-20	10-20	10-20	10-20	10-20
Age Basic	25-35	25-30	20-35	20-25	30-40	25-35	25-35	25-35	25-35	25-35	25-35
Age Middle	26-36	26-31	21-36	21-26	30-40	26-36	26-36	26-36	26-36	26-36	26-36
Age Academic	29-39	29-34	24-39	24-29	30-40	29-39	29-39	29-39	29-39	29-39	29-39
Waves	1976-2003	1976-2003	1976-2003	1976-2003	1976-2003	1976-2001	1980-2003	1976-2003	1976-2003	1976-2003	1976-2003

*Notes:* The table shows the effect of the short school years five years after graduation for various alternative specifications. Column (1) repeats the main specification for comparison, columns (2)-(5) rely on information provided in different periods after graduation, as indicated in bottom part of the table. Column (6) disregards the last two waves of the Micro Census and column (7) drops the first two waves. Columns (8)-(9) drop or include certain states from the analysis (Lower Saxony (LS), Saarland (SL), respectively). Column (10) relies on treatment identification based on individual's birthyear and column (11) on standard errors clustered at the state level. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.4: Robustness Checks - Alternative Age, Wave, State and SE Specifications *Ten* Years after Graduation

	Main	Other Age Restrictions			Wave Restrictions		State Restrictions		Birthyear	SE
	(1)	(2)	(3)	(4)	(5)	-LS (6)	+SL (7)	(8)	(9)	
Panel A: Marriage										
Basic	0.004 (0.008)	0.007 (0.009)	0.001 (0.008)	0.004 (0.008)	0.006 (0.007)	-0.004 (0.009)	0.005 (0.008)	0.007 (0.008)	0.004 (0.015)	
N	203,501	99,250	237,942	203,501	166,094	180,009	207,963	192,430	203,501	
Middle	0.026** (0.011)	0.028* (0.014)	0.023*** (0.009)	0.026** (0.011)	0.028** (0.011)	0.031** (0.013)	0.027** (0.011)	0.019** (0.009)	0.026** (0.013)	
N	98,448	44,503	118,417	98,448	89,000	86,245	99,807	89,226	98,448	
Academic	0.025** (0.011)	0.039** (0.018)	0.022** (0.010)	0.027** (0.012)	0.024** (0.011)	0.032*** (0.011)	0.025** (0.011)	0.022* (0.012)	0.025 (0.025)	
N	109,199	51,566	113,732	103,698	106,139	98,348	110,756	97,768	109,199	
Panel B: First Birth										
Basic	-0.010 (0.006)	-0.001 (0.008)	-0.024*** (0.007)	-0.010 (0.006)	-0.012* (0.007)	-0.016** (0.006)	-0.009 (0.006)	-0.006 (0.006)	-0.010 (0.007)	
N	203,501	99,250	237,942	203,501	166,094	180,009	207,963	192,430	203,501	
Middle	0.019* (0.011)	0.009 (0.015)	0.012 (0.008)	0.019* (0.011)	0.023** (0.011)	0.019 (0.012)	0.020* (0.011)	0.016 (0.011)	0.019 (0.012)	
N	98,448	44,503	118,417	98,448	89,000	86,245	99,807	89,226	98,448	
Academic	0.036*** (0.010)	0.059*** (0.012)	0.026*** (0.010)	0.038*** (0.010)	0.035*** (0.010)	0.037*** (0.010)	0.037*** (0.010)	0.036*** (0.011)	0.036*** (0.010)	
N	109,199	51,566	113,732	103,698	106,139	98,348	110,756	97,768	109,199	
Years after Grad.										
Age Basic	10-20	10-15	Age 30-40	10-20	10-20	10-20	10-20	10-20	10-20	
Age Middle	25-35	25-30	30-40	25-35	25-35	25-35	25-35	25-35	25-35	
Age Academic	26-36	26-31	30-40	26-36	26-36	26-36	26-36	26-36	26-36	
Waves	29-39	29-34	30-40	29-39	29-39	29-39	29-39	29-39	29-39	
	1976-2003	1976-2003	1976-2003	1976-2001	1980-2003	1976-2003	1976-2003	1976-2003	1976-2003	

*Notes:* The table shows the effect of the short school years ten years after graduation for various alternative specifications. Column (1) repeats the main specification for comparison, columns (2)-(3) rely on information provided in differing numbers of years after graduation, as indicated in the bottom part of the table. Column (4) disregards the last two waves of the Micro Census, and column (5) drops the first two waves. Columns (6)-(7) drop or include certain states from the analysis (Lower Saxony (LS), Saarland (SL), respectively). Column (8) relies on treatment identification based on individual's birth year and column (9) on standard errors clustered at the state level. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.5: Robustness Checks: Alternative Cohort Restrictions

		5 Years				8 Years				10 Years			
		Main	+Prim	-0.5 SSY	-last pre-treat	Main	+Prim	-0.5 SSY	-last pre-treat	Main	+Prim	-0.5 SSY	-last pre-treat
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Panel A: Marriage</b>													
Basic	0.005	0.001	0.006	0.006	0.006	0.002	-0.000	0.006	0.006	0.004	0.001	0.006	0.007
	(0.006)	(0.005)	(0.006)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)	(0.008)	(0.008)
N	203,501	247,074	190,370	189,221	203,501	203,501	247,074	190,370	189,221	203,501	247,074	190,370	189,221
Middle	0.037***	0.028***	0.036***	0.037***	0.037***	0.037***	0.027***	0.035***	0.038***	0.026**	0.015*	0.025**	0.026**
	(0.008)	(0.006)	(0.008)	(0.008)	(0.011)	(0.011)	(0.009)	(0.011)	(0.012)	(0.011)	(0.009)	(0.011)	(0.011)
N	98,448	125,936	93,999	94,046	98,448	98,448	125,936	93,999	94,046	98,448	125,936	93,999	94,046
Academic	0.046***	0.031***	0.046***	0.049***	0.041***	0.041***	0.024**	0.040***	0.045***	0.025**	0.014	0.025**	0.029**
	(0.009)	(0.008)	(0.009)	(0.008)	(0.011)	(0.011)	(0.010)	(0.011)	(0.010)	(0.011)	(0.010)	(0.011)	(0.011)
N	109,199	143,134	106,052	106,285	109,199	109,199	143,134	106,052	106,285	109,199	143,134	106,052	106,285
<b>Panel B: First Birth</b>													
Basic	0.001	0.001	0.001	-0.000	-0.003	-0.003	-0.002	-0.003	-0.003	-0.010	-0.005	-0.008	-0.009
	(0.004)	(0.003)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)
N	203,501	247,074	190,370	189,221	203,501	203,501	247,074	190,370	189,221	203,501	247,074	190,370	189,221
Middle	0.007	0.005	0.006	0.007	0.012	0.012	0.008	0.009	0.012	0.019*	0.013*	0.016	0.019*
	(0.005)	(0.004)	(0.005)	(0.005)	(0.009)	(0.009)	(0.006)	(0.009)	(0.009)	(0.011)	(0.008)	(0.011)	(0.011)
N	98,448	125,936	93,999	94,046	98,448	98,448	125,936	93,999	94,046	98,448	125,936	93,999	94,046
Academic	0.016**	0.008	0.016**	0.018***	0.032***	0.032***	0.019**	0.031***	0.035***	0.036***	0.026***	0.035***	0.040***
	(0.007)	(0.006)	(0.007)	(0.007)	(0.010)	(0.010)	(0.008)	(0.009)	(0.009)	(0.010)	(0.009)	(0.010)	(0.010)
N	109,199	143,134	106,052	106,285	109,199	109,199	143,134	106,052	106,285	109,199	143,134	106,052	106,285

*Notes:* The table shows the effect of the short school years based on Equation (2) using different cohort restrictions. Columns (1), (5), and (9) repeat for comparison the main results for five, eight, and ten years after graduation, respectively. Columns (2), (6), and (10) include also cohorts that were affected by short school years in primary school, while columns (3), (7), and (11) disregard cohorts with only one short school year. Finally, columns (4), (8), and (12) exclude the last pre-treatment cohort. Standard errors clustered at the cohort-state level in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A.6: Controlling for Compulsory Schooling (CS) Reforms

	Main	CS Control	
	(1)	(2)	(3)
<b>Panel A: Marriage - Basic Track</b>			
5 Years after Graduation	0.005 (0.006)	-0.000 (0.006)	0.005 (0.006)
8 Years after Graduation	0.002 (0.007)	-0.005 (0.008)	-0.005 (0.007)
10 Years after Graduation	0.004 (0.008)	-0.005 (0.008)	-0.005 (0.008)
N	203,501	203,501	203,501
<b>Panel B: First Birth - Basic Track</b>			
5 Years after Graduation	0.001 (0.004)	0.002 (0.004)	0.000 (0.004)
8 Years after Graduation	-0.003 (0.005)	-0.002 (0.006)	-0.005 (0.005)
10 Years after Graduation	-0.010 (0.006)	-0.008 (0.007)	-0.013* (0.007)
N	203,501	203,501	203,501
No CS Control	Yes	No	No
CS Control Refined	No	Yes	No
CS Control Pischke (2007)	No	No	Yes

*Notes:* The table shows the effect of the short school years on marriage and first birth five, eight, and ten years after graduation for individuals in the basic track, without controlling for compulsory schooling reforms (column 1), controlling for compulsory schooling reforms according to our refined dates (column 2), and the reform dates used by Pischke (2007) in column (3). The latter reform dates go back to Pischke and von Wachter (2005, 2008) and coincide, in our sample, with the slightly differing reform dates in Leschinsky and Roeder (1980) (see also the discussion in Appendix B). Standard errors clustered at the cohort-state level in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## B. Appendix B: Collection of Relevant Schooling Laws for Refined Assignment to Short School Years

This paper exploits changes in the length of the schooling phase induced by short school years. Therefore, Tables B.1 - B.11 list for students from each West German state and the birth years 1935 through 1965 the regular duration of the schooling phase depending on their secondary school track (columns (8) for basic, (11) for middle, (14) for academic). Based on these numbers, Figure B.1 graphically depicts the development of the regular length of schooling across cohorts for all West German states and tracks.

Tables B.1 - B.11 exhibit three other noteworthy features. First, they provide the necessary information for the computation of the regular duration of the schooling phase (see below). Second, the tables list the relevant legal sources, which we display in detail in Table B.12.<sup>20</sup> Third, the tables mark the SSY treatment status and the cohorts included in the main analyses (columns (6), (9), and (12)).

Regarding the first point: For an individual in a given state and track, the regular duration of the schooling phase depends on the individual's birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), and the subsequent date of school entry (column (4)). Besides the short school years in 1966/67 (columns (6), (9), and (12)), there are two other sources of institutional variation affecting the regular length of the schooling phase. First, several states moved the start of the school year from fall to Easter in line with the Düsseldorf Accord (DA) in 1955. These changes are considered in the computation of the regular school duration as well and the respective law sources are listed in law column (17) of Tables B.1 - B.11. Cohorts affected by these changes are generally excluded from our analyses (see also Section 3.3 and the dashed lines in Figure B.1, which indicate deviations from the time windows used in Pischke (2007) and Braakmann (2010)).

Second, the basic track was extended from eight to nine years between World War II and the SSY introduction in different West German states at different points in time (columns 5). In the states of Hesse, North-Rhine-Palatine, Rhineland-Palatine, and Saarland, the introduction of a mandatory ninth grade even coincided with the implementation of short school years. Hence, in these states, instead of adding an extra year of schooling to graduating classes in order to fulfill the new minimum of 9 years of schooling, students had to attend

---

<sup>20</sup>In all tables, law sources are stated in columns (15)-(18) and compiled in Table B.12 in case of changes concerning school-entry cut-off rules, compulsory schooling (CPS), or start of the school year reforms - either in line with the Düsseldorf Accord (DA) or with the Hamburg Accord (HA).

two short school years. As a result, these students, who would have graduated regularly after eight years at Easter 1967, stayed in school until fall 1967. As a result, the net effect for these affected cohorts was an increase in time spent in school compared to previous cohorts (four months longer), but less of an increase relative to states for which the change in compulsory schooling implied an increase of a full year of schooling.

Several economic studies exploit these increases in compulsory years of schooling in Germany as an instrument for education. The literature mainly uses two sets of compulsory schooling reform dates; reform years initially proposed in the study by Pischke and von Wachter (2005, 2008)<sup>21</sup> and a second set referring to a book chapter by Leschinsky and Roeder (1980) with slightly different reform dates used in studies by Cygan-Rehm and Maeder (2013); Cygan-Rehm (2018), Hampf (2019) and Piopiunik (2011, 2014). For the former set of reform years, the authors do not specify any primary sources for the applied reform dates, which is also pointed out in Helbig and Nikolai (2015, p.62).<sup>22</sup> We propose a refined set of reform years based on a comprehensive collection of educational laws as primary sources for regulating compulsory schooling in each federal state.<sup>23</sup>

Reading help: The first line of Table B.1 (West Berlin) shows that for individuals of the 1935 birth cohort (1) the relevant cut-off for school entry was December 31st (3). Children started school in August 1941 (4), for basic track students compulsory schooling was nine years (5) and they did not have any short school years (6). Consequently, their regular graduation point was July 1950 (7) after nine years of school (8). The “-” in column (6) indicates that these individuals are neither part of the treatment group nor of the control group in our main analysis. Similarly, individuals in the middle track are not part of our main sample (9). Their regular graduation time was July 1951 (10) after 10 years of schooling (11). Individuals in the academic track regularly finished school in March 1954 (13), after 12.67 school years (14). They did not spend a full 13 years in school due to the moving the

---

<sup>21</sup>Studies applying the respective reform set include e.g. Siedler (2010); Fort et al. (2011); Kemptner et al. (2011); Huebener (2018); Margaryan et al. (2020).

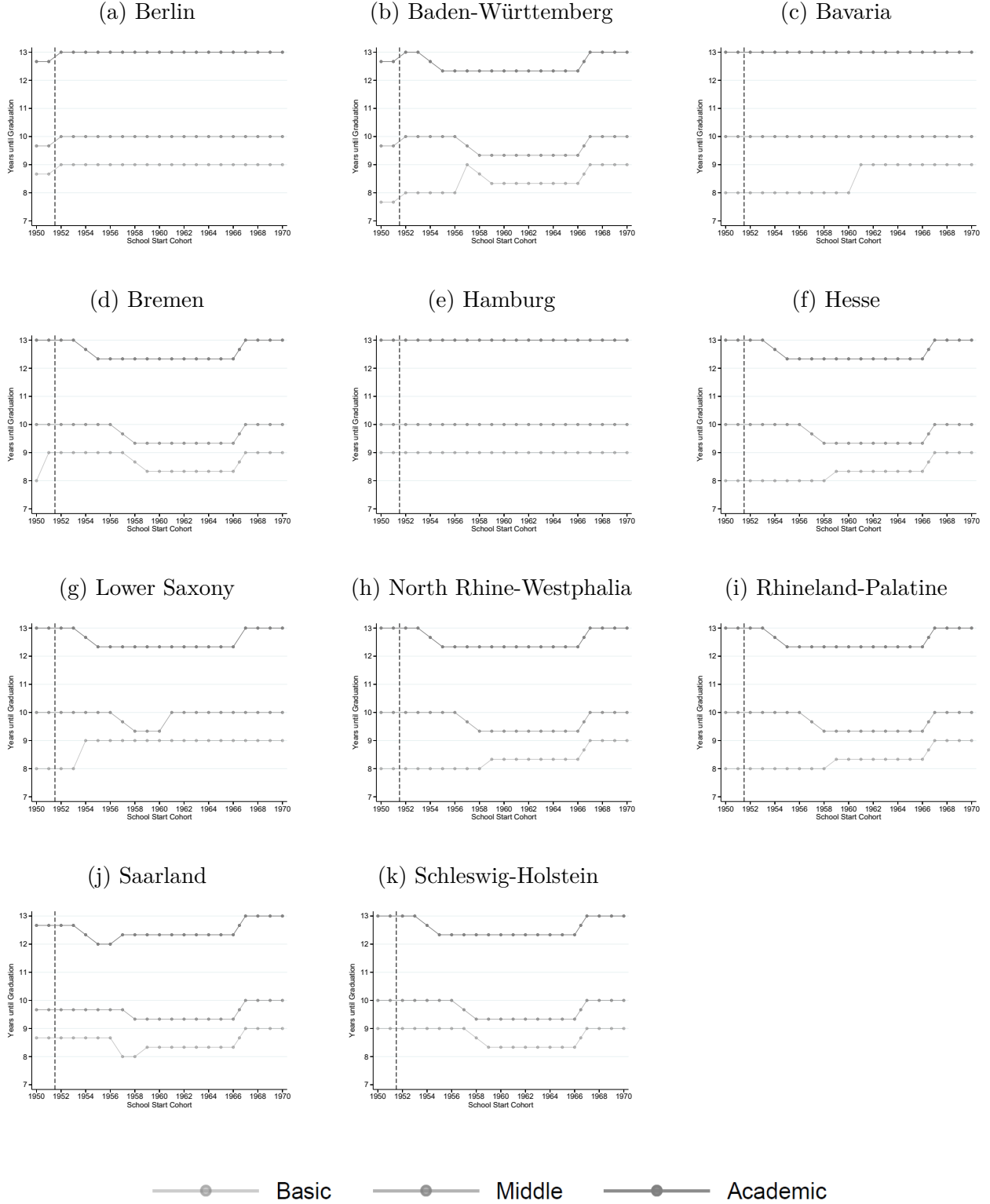
<sup>22</sup>Furthermore, studies also vary with respect to assigning birth cohorts that were first to experience longer compulsory schooling. Most studies use a school start in the year children turn six or seven. None of these studies take into consideration that the legal age cut-offs determining binding school starts vary on the federal level.

<sup>23</sup>Our legal sources coincide with sources collected in Helbig and Nikolai (2015, p.61 ff), but also include reform dates for the states of Bremen, Hamburg, and West Berlin; for all three of which Helbig and Nikolai (2015) assign a mandatory ninth school year before the start of their analysis in 1949. However, for the city-state of Bremen, we find that even though HB49 establishes compulsory schooling of nine years of schooling, implementation depended on a separate resolution of the Senate, which never appeared. Consequently, we assign the compulsory schooling reform according to HB57 to the school starting cohort 1951 as the first cohort to attend nine years of basic track schooling and graduate at Easter 1960.

start of the school year from fall to Easter in line with the Düsseldorf Accord. Columns (15)-(18) display abbreviations of the relevant law sources that can be looked up in Table B.12. Columns (15) and (16) indicate the first school starting cohort that was affected by changes in the cut-off for school entry and compulsory schooling, respectively. Columns (17) and (18) indicate all cohorts that are affected by shorter school years due to Düsseldorf Accord and Hamburg Accord, respectively.



Figure B.1: Refined Assignment to Short School Years



*Notes:* This figure visualizes the proposed refined assignment to short school years for each West German federal state and school track based on individuals' regular duration of the schooling phase (see also columns (8) for basic, (11) for middle, and (14) for academic in Tables B.1-B.11). Narrowing the sample window by two years compared to the setting applied in Pischke (2007) and Braakmann (2010) (as indicated by the dashed lines) and excluding Saarland from our analysis allows us to abstain from using school cohorts that have experienced shorter school years due to earlier shifts of the school starting year from fall to Easter as control units (as in Baden-Württemberg, Bremen, Saarland and West Berlin). Hence, within our sample period using school starting years from 1952 until 1970, deviations from the regular school years required in each track (8/9 years in basic, 10 in middle and 13 in academic) imply exposure to short school years. Own calculations and graphical display.

Table B.1: West Berlin

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	9	-	1950/07	9	-	1951/07	10	-	1954/03	12.67		BE48	BE51	
1936	1-12	12/31	1942/08	9	-	1951/07	9	-	1952/03	9.67	-	1955/03	12.67			BE51	
1937	1-12	12/31	1943/08	9	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67			BE51	
1938	1-12	12/31	1944/08	9	-	1953/03	8.67	-	1954/03	9.67	-	1957/03	12.67			BE51	
1939	1-12	12/31	1945/08	9	-	1954/03	8.67	-	1955/03	9.67	-	1958/03	12.67			BE51	
1940	1-12	12/31	1946/08	9	-	1955/03	8.67	-	1956/03	9.67	-	1959/03	12.67			BE51	
1941	1-12	12/31	1947/08	9	-	1956/03	8.67	-	1957/03	9.67	-	1960/03	12.67			BE51	
1942	1-12	12/31	1948/08	9	-	1957/03	8.67	-	1958/03	9.67	-	1961/03	12.67			BE51	
1943	1-12	12/31	1949/08	9	-	1958/03	8.67	-	1959/03	9.67	-	1962/03	12.67			BE51	
1944	1-12	12/31	1950/08	9	-	1959/03	8.67	-	1960/03	9.67	-	1963/03	12.67			BE51	
1945	1-12	12/31	1951/08	9	-	1960/03	8.67	-	1961/03	9.67	-	1964/03	12.67			BE51	
1946	1-6	06/30	1952/04	9	0	1961/03	9	0	1962/03	10	0	1965/03	13	BE51			
1946	7-12	06/30	1953/04	9	0	1962/03	9	0	1963/03	10	0	1966/03	13				
1947	1-6	06/30	1953/04	9	0	1963/03	9	0	1964/03	10	0	1967/03	13				
1947	7-12	06/30	1954/04	9	0	1963/03	9	0	1964/03	10	0	1967/03	13				
1948	1-6	06/30	1954/04	9	0	1963/03	9	0	1964/03	10	0	1967/03	13				
1948	7-12	06/30	1955/04	9	0	1964/03	9	0	1965/03	10	0	1968/03	13				
1949	1-6	06/30	1955/04	9	0	1964/03	9	0	1965/03	10	0	1968/03	13				
1949	7-12	06/30	1956/04	9	0	1965/03	9	0	1966/03	10	0	1969/03	13				
1950	1-3	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	0	1969/03	13	BE55			
1950	4-12	03/31	1957/04	9	0	1966/03	9	0	1967/03	10	0	1970/03	13	BE55			
1951	1-3	03/31	1957/04	9	0	1966/03	9	0	1967/03	10	0	1970/03	13				
1951	4-12	03/31	1958/04	9	0	1967/03	9	0	1968/03	10	0	1971/03	13				
1952	1-3	03/31	1958/04	9	0	1967/03	9	0	1968/03	10	0	1971/03	13				
1952	4-12	03/31	1959/04	9	0	1968/03	9	0	1969/03	10	0	1972/03	13				
1953	1-3	03/31	1959/04	9	0	1968/03	9	0	1969/03	10	0	1972/03	13				
1953	4-12	03/31	1960/04	9	0	1969/03	9	0	1970/03	10	0	1973/03	13				
1954	1-3	03/31	1960/04	9	0	1969/03	9	0	1970/03	10	0	1973/03	13				
1954	4-12	03/31	1961/04	9	0	1970/03	9	0	1971/03	10	0	1974/03	13				
1955	1-3	03/31	1961/04	9	0	1970/03	9	0	1971/03	10	0	1974/03	13				
1955	4-12	03/31	1962/04	9	0	1971/03	9	0	1972/03	10	0	1975/03	13				
1956	1-3	03/31	1962/04	9	0	1971/03	9	0	1972/03	10	0	1975/03	13				
1956	4-12	03/31	1963/04	9	0	1972/03	9	0	1973/03	10	0	1976/03	13				
1957	1-3	03/31	1963/04	9	0	1972/03	9	0	1973/03	10	0	1976/03	13				
1957	4-12	03/31	1964/04	9	0	1973/03	9	0	1974/03	10	0	1977/03	13				
1958	1-3	03/31	1964/04	9	0	1973/03	9	0	1974/03	10	0	1977/03	13				
1958	4-12	03/31	1965/04	9	0	1974/03	9	0	1975/03	10	0	1978/03	13				
1959	1-3	03/31	1965/04	9	0	1974/03	9	0	1975/03	10	0	1978/03	13				
1959	4-12	03/31	1966/04	9	0	1975/03	9	0	1976/03	10	0	1979/03	13				
1960	1-3	03/31	1966/04	9	0	1975/03	9	0	1976/03	10	0	1979/03	13				
1960	4-12	03/31	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	BE66			
1961	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	BE66			
1961	7-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

Notes: This table lists for students of birth years 1935 through 1965 and residence in West Berlin for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) for basic track students column (5)), as well as the start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For West Berlin, the number of short school years that stem from the latter policy reform (columns (6), (9), and (12)) is zero for all school starting years and tracks.

Table B.2: Baden-Württemberg

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1949/07	8	-	1951/07	10	-	1954/03	12.67			BW52	
1936	1-12	12/31	1942/08	8	-	1950/07	8	-	1952/03	9.67	-	1955/03	12.67			BW52	
1937	1-12	12/31	1943/08	8	-	1951/07	8	-	1953/03	9.67	-	1956/03	12.67			BW52	
1938	1-12	12/31	1944/08	8	-	1952/03	7.67	-	1954/03	9.67	-	1957/03	12.67			BW52	
1939	1-12	12/31	1945/08	8	-	1953/03	7.67	-	1955/03	9.67	-	1958/03	12.67			BW52	
1940	1-12	12/31	1946/08	8	-	1954/03	7.67	-	1956/03	9.67	-	1959/03	12.67			BW52	
1941	1-12	12/31	1947/08	8	-	1955/03	7.67	-	1957/03	9.67	-	1960/03	12.67			BW52	
1942	1-12	12/31	1948/08	8	-	1956/03	7.67	-	1958/03	9.67	-	1961/03	12.67			BW52	
1943	1-12	12/31	1949/08	8	-	1957/03	7.67	-	1959/03	9.67	-	1962/03	12.67			BW52	
1944	1-12	12/31	1950/08	8	-	1958/03	7.67	-	1960/03	9.67	-	1963/03	12.67			BW52	
1945	1-9	09/30	1951/08	8	-	1959/03	7.67	-	1961/03	9.67	-	1964/03	12.67	BW52		BW52	
1945	10-12	03/31	1952/04	8	0	1960/03	8	0	1962/03	10	0	1965/03	13	BW52		BW52	
1946	1-3	03/31	1952/04	8	0	1960/03	8	0	1962/03	10	0	1965/03	13	BW53		BW53	
1946	4-12	04/15	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13	BW53		BW53	
1947	1-4.5	04/15	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13				
1947	4.5-12	04/15	1954/04	8	0	1962/03	8	0	1964/03	10	1	1966/11	12.67				
1948	1-4.5	04/15	1954/04	8	0	1962/03	8	0	1964/03	10	1	1966/11	12.67				
1948	4.5-12	04/15	1955/04	8	0	1963/03	8	0	1965/03	10	2	1967/07	12.33				
1949	1-4.5	04/15	1955/04	8	0	1963/03	8	0	1965/03	10	2	1967/07	12.33				
1949	4.5-12	04/15	1956/04	8	0	1964/03	8	0	1966/03	10	2	1968/07	12.33				
1950	1-4.5	04/15	1956/04	8	0	1964/03	8	0	1966/03	10	2	1968/07	12.33				
1950	4.5-12	04/15	1957/04	9	0	1966/03	9	1	1966/11	9.67	2	1969/07	12.33		BW64		
1951	1-4.5	04/15	1957/04	9	0	1966/03	9	1	1966/11	9.67	2	1969/07	12.33		BW64		
1951	4.5-12	12/31	1958/04	9	1	1966/11	8.67	2	1967/07	9.33	2	1970/07	12.33	BW57			
1952	1-12	12/31	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1971/07	12.33				
1953	1-12	12/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33				
1954	1-12	12/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33				
1955	1-12	12/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33				
1956	1-12	12/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33				
1957	1-12	12/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33				
1958	1-12	12/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33				
1959	1-12	12/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.33				
1960	1-6	06/30	1966/12	9	1	1975/07	8.67	1	1976/07	9.67	1	1979/07	12.67	BW66			
1960	7-12	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	7-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

*Notes:* This table lists for students of birth years 1935 through 1965 and residence in Baden-Württemberg for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) for basic track students (column (5)) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Baden-Württemberg, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12). Before 1953, Baden-Württemberg was divided into Württemberg-Hohenzollern, Baden and Württemberg-Baden. BW52 implies a law source from Baden. However, variations between the three substates only concerned age cut-off rules for school-starting cohort 1951 (30.09. in Baden and Württemberg-Hohenzollern; 31.05. in Württemberg-Baden).

Table B.3: Bavaria

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1949/07	8	-	1951/07	10	-	1954/07	13				
1936	1-12	12/31	1942/08	8	-	1950/07	8	-	1952/07	10	-	1955/07	13				
1937	1-12	12/31	1943/08	8	-	1951/07	8	-	1953/07	10	-	1956/07	13				
1938	1-12	12/31	1944/08	8	-	1952/07	8	-	1954/07	10	-	1957/07	13				
1939	1-12	12/31	1945/08	8	-	1953/07	8	-	1955/07	10	-	1958/07	13				
1940	1-12	12/31	1946/08	8	-	1954/07	8	-	1956/07	10	-	1959/07	13				
1941	1-12	12/31	1947/08	8	-	1955/07	8	-	1957/07	10	-	1960/07	13				
1942	1-12	12/31	1948/08	8	-	1956/07	8	-	1958/07	10	-	1961/07	13				
1943	1-12	12/31	1949/08	8	-	1957/07	8	-	1959/07	10	-	1962/07	13				
1944	1-12	12/31	1950/08	8	-	1958/07	8	-	1960/07	10	-	1963/07	13				
1945	1-12	12/31	1951/08	8	-	1959/07	8	-	1961/07	10	-	1964/07	13				
1946	1-9	09/30	1952/08	8	0	1960/07	8	0	1962/07	10	0	1965/07	13				
1947	1-9	09/30	1953/08	8	0	1961/07	8	0	1963/07	10	0	1966/07	13				
1948	1-9	09/30	1954/08	8	0	1962/07	8	0	1964/07	10	0	1967/07	13				
1949	1-9	09/30	1955/08	8	0	1963/07	8	0	1965/07	10	0	1968/07	13				
1949	1-9	09/30	1955/08	8	0	1963/07	8	0	1965/07	10	0	1968/07	13				
1949	1-9	09/30	1956/08	8	0	1964/07	8	0	1966/07	10	0	1969/07	13				
1950	1-9	09/30	1956/08	8	0	1964/07	8	0	1966/07	10	0	1969/07	13				
1950	10-12	09/30	1957/08	8	0	1965/07	8	0	1967/07	10	0	1970/07	13				
1951	1-9	09/30	1957/08	8	0	1965/07	8	0	1967/07	10	0	1970/07	13				
1951	10-12	09/30	1958/08	8	0	1966/07	8	0	1968/07	10	0	1971/07	13				
1952	1-9	09/30	1958/08	8	0	1966/07	8	0	1968/07	10	0	1971/07	13				
1952	10-12	09/30	1959/08	8	0	1967/07	8	0	1969/07	10	0	1972/07	13				
1953	1-9	09/30	1959/08	8	0	1967/07	8	0	1969/07	10	0	1972/07	13				
1953	10-12	09/30	1960/08	8	0	1968/07	8	0	1970/07	10	0	1973/07	13				
1954	1-9	09/30	1960/08	8	0	1968/07	8	0	1970/07	10	0	1973/07	13				
1954	10-12	09/30	1961/08	9	0	1970/07	9	0	1971/07	10	0	1974/07	13				
1955	1-9	09/30	1961/08	9	0	1970/07	9	0	1971/07	10	0	1974/07	13				
1955	10-12	09/30	1962/08	9	0	1971/07	9	0	1972/07	10	0	1975/07	13				
1956	1-9	09/30	1962/08	9	0	1971/07	9	0	1972/07	10	0	1975/07	13				
1956	10-12	09/30	1963/08	9	0	1972/07	9	0	1973/07	10	0	1976/07	13				
1957	1-9	09/30	1963/08	9	0	1972/07	9	0	1973/07	10	0	1976/07	13				
1957	10-12	09/30	1964/08	9	0	1973/07	9	0	1974/07	10	0	1977/07	13				
1958	1-9	09/30	1964/08	9	0	1973/07	9	0	1974/07	10	0	1977/07	13				
1958	10-12	09/30	1965/08	9	0	1974/07	9	0	1975/07	10	0	1978/07	13				
1959	1-9	09/30	1965/08	9	0	1974/07	9	0	1975/07	10	0	1978/07	13				
1959	10-12	09/30	1966/08	9	0	1975/07	9	0	1976/07	10	0	1979/07	13				
1960	1-9	09/30	1966/08	9	0	1975/07	9	0	1976/07	10	0	1979/07	13				
1960	10-12	09/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	1-9	09/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	10-12	09/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-9	09/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	10-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

*Notes:* This table lists for students of birth years 1935 through 1965 and residence in Bavaria for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) (for basic track students column (5)) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Bavaria, the number of short school years that stem from the latter policy reform (columns (6), (9), and (12)) is zero for all school starting years and tracks.

Table B.4: Bremen

Birth		School Start			Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources			
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1949/03	7.67	-	1951/03	9.67	-	1954/03	12.67			HB48	
1936	1-12	12/31	1942/08	8	-	1950/03	7.67	-	1952/03	9.67	-	1955/03	12.67			HB48	
1937	1-12	12/31	1943/08	8	-	1951/03	7.67	-	1953/03	9.67	-	1956/03	12.67			HB48	
1938	1-12	12/31	1944/08	8	-	1952/03	7.67	-	1954/03	9.67	-	1957/03	12.67			HB48	
1939	1-12	12/31	1945/08	8	-	1953/03	7.67	-	1955/03	9.67	-	1958/03	12.67			HB48	
1940	1-3	03/31	1946/04	8	-	1954/03	8	-	1956/03	10	-	1959/03	13	HB46			
1941	4-12	03/31	1947/04	8	-	1955/03	8	-	1957/03	10	-	1960/03	13				
1942	1-3	03/31	1947/04	8	-	1955/03	8	-	1957/03	10	-	1960/03	13				
1943	4-12	03/31	1948/04	8	-	1956/03	8	-	1958/03	10	-	1961/03	13				
1944	1-3	03/31	1948/04	8	-	1956/03	8	-	1958/03	10	-	1961/03	13				
1945	4-12	03/31	1949/04	8	-	1957/03	8	-	1959/03	10	-	1962/03	13				
1946	1-3	03/31	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13				
1947	1-3	03/31	1951/04	9	-	1960/03	9	-	1961/03	10	-	1964/03	13				
1948	4-12	03/31	1952/04	9	0	1961/03	9	0	1962/03	10	0	1965/03	13				
1949	1-3	03/31	1953/04	9	0	1962/03	9	0	1963/03	10	0	1966/03	13				
1950	4-12	03/31	1954/04	9	0	1963/03	9	0	1964/03	10	0	1966/03	13				
1951	1-3	03/31	1955/04	9	0	1964/03	9	0	1965/03	10	0	1968/07	12.33				
1952	4-12	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	0	1969/07	12.33				
1953	1-3	03/31	1957/04	9	0	1966/03	9	0	1967/03	9.67	2	1970/07	12.33				
1954	4-12	03/31	1958/04	9	1	1967/03	8.67	2	1968/07	9.33	2	1971/07	12.33				
1955	1-3	03/31	1959/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33				
1956	4-12	03/31	1960/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33				
1957	1-3	03/31	1961/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33				
1958	4-12	03/31	1962/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33				
1959	1-3	03/31	1963/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33				
1960	4-12	03/31	1964/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33				
1961	1-3	03/31	1965/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.33	HB65			
1962	4-12	03/31	1966/04	9	2	1975/07	8.33	2	1976/07	9.33	2	1979/07	12.67	HB65			
1963	1-6	06/29	1967/08	9	1	1976/07	8.67	1	1977/07	9.67	1	1980/07	13	HB67			
1964	6-12	06/29	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13	HB67			
1965	1-6	06/29	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13	HB67			
1966	6-12	06/29	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13	HB67			
1967	1-6	06/29	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13	HB67			

Notes: This table lists for students of birth years 1935 through 1965 and residence in Bremen for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) for basic track students column (5) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Bremen, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12).

Table B.5: Hamburg

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-8	08/31	1941/08	9	-	1950/03	8.67	-	1951/03	9.67	-	1954/03	12.67	HH41	HH49b	HH49a	
1935	9-12	10/31	1942/08	9	-	1951/03	8.67	-	1952/03	9.67	-	1955/03	12.67	HH41	HH49b	HH49b	
1936	1-10	10/31	1942/08	9	-	1951/03	8.67	-	1952/03	9.67	-	1955/03	12.67	HH41	HH49b	HH49b	
1936	11-12	12/31	1943/08	9	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67	R41	HH49b	HH49b	
1937	1-12	12/31	1943/08	9	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67		HH49b	HH49b	
1938	1-12	12/31	1944/08	9	-	1953/03	8.67	-	1954/03	9.67	-	1957/03	12.67		HH49b	HH49b	
1939	1-12	12/31	1944/08	9	-	1953/03	8.67	-	1954/03	9.67	-	1958/03	12.67		HH49b	HH49b	
1940	1-3	03/31	1946/04	9	-	1955/03	9	-	1956/03	10	-	1959/03	13	HH45			
1940	4-12	03/31	1947/04	9	-	1956/03	9	-	1957/03	10	-	1960/03	13				
1941	1-3	03/31	1947/04	9	-	1956/03	9	-	1957/03	10	-	1960/03	13				
1941	4-12	03/31	1948/04	9	-	1957/03	9	-	1958/03	10	-	1961/03	13				
1942	1-3	03/31	1948/04	9	-	1957/03	9	-	1958/03	10	-	1961/03	13				
1942	4-12	03/31	1949/04	9	-	1958/03	9	-	1959/03	10	-	1962/03	13				
1943	1-3	03/31	1949/04	9	-	1958/03	9	-	1959/03	10	-	1962/03	13				
1943	4-12	03/31	1950/04	9	-	1959/03	9	-	1960/03	10	-	1963/03	13				
1944	1-3	03/31	1950/04	9	-	1959/03	9	-	1960/03	10	-	1963/03	13				
1944	4-12	03/31	1951/04	9	-	1960/03	9	-	1961/03	10	-	1964/03	13				
1945	1-3	03/31	1951/04	9	-	1960/03	9	-	1961/03	10	-	1964/03	13				
1945	4-12	03/31	1952/04	9	0	1961/03	9	0	1962/03	10	0	1965/03	13				
1946	1-3	03/31	1952/04	9	0	1961/03	9	0	1962/03	10	0	1965/03	13				
1946	4-12	03/31	1953/04	9	0	1962/03	9	0	1963/03	10	0	1966/03	13				
1947	1-3	03/31	1953/04	9	0	1962/03	9	0	1963/03	10	0	1966/03	13				
1947	4-12	03/31	1954/04	9	0	1963/03	9	0	1964/03	10	0	1967/03	13				
1948	1-3	03/31	1954/04	9	0	1963/03	9	0	1964/03	10	0	1967/03	13				
1948	4-12	03/31	1955/04	9	0	1964/03	9	0	1965/03	10	0	1968/03	13				
1949	1-3	03/31	1955/04	9	0	1964/03	9	0	1965/03	10	0	1968/03	13				
1949	4-12	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	0	1969/03	13				
1950	1-3	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	0	1969/03	13				
1950	4-12	03/31	1957/04	9	0	1966/03	9	0	1967/03	10	0	1970/03	13				
1951	1-3	03/31	1957/04	9	0	1966/03	9	0	1967/03	10	0	1970/03	13				
1951	4-12	03/31	1958/04	9	0	1967/03	9	0	1968/03	10	0	1971/03	13				
1952	1-3	03/31	1958/04	9	0	1967/03	9	0	1968/03	10	0	1971/03	13				
1952	4-12	03/31	1959/04	9	0	1968/03	9	0	1969/03	10	0	1972/03	13				
1953	1-3	03/31	1959/04	9	0	1968/03	9	0	1969/03	10	0	1972/03	13				
1953	4-12	03/31	1960/04	9	0	1969/03	9	0	1970/03	10	0	1973/03	13				
1954	1-3	03/31	1960/04	9	0	1969/03	9	0	1970/03	10	0	1973/03	13				
1954	4-12	03/31	1961/04	9	0	1970/03	9	0	1971/03	10	0	1974/03	13				
1955	1-3	03/31	1961/04	9	0	1970/03	9	0	1971/03	10	0	1974/03	13				
1955	4-12	12/31	1962/04	9	0	1971/03	9	0	1972/03	10	0	1975/03	13	HH61			
1956	1-12	12/31	1963/04	9	0	1972/03	9	0	1973/03	10	0	1976/03	13				
1957	1-12	12/31	1964/04	9	0	1973/03	9	0	1974/03	10	0	1977/03	13				
1958	1-12	12/31	1965/04	9	0	1974/03	9	0	1975/03	10	0	1978/03	13				
1959	1-12	12/31	1966/04	9	0	1975/03	9	0	1976/03	10	0	1979/03	13				
1960	1-12	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	HH66			
1961	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	HH66			
1961	7-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

*Notes:* This table lists for students of birth years 1935 through 1965 and residence in Hamburg for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) (for basic track students column (5)) and start of the school year reforms - either in line with the Düsselndorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Hamburg, the number of short school years that stem from the latter policy reform (columns (6), (9), and (12)) is zero for all school starting years and tracks.

Table B.6: Hesse

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1950/03	8.67	-	1951/03	9.67	-	1954/03	12.67			HE50	
1936	1-12	12/31	1942/08	8	-	1951/03	8.67	-	1952/03	9.67	-	1955/03	12.67			HE50	
1937	1-12	12/31	1943/08	8	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67			HE50	
1938	1-12	12/31	1944/08	8	-	1953/03	8.67	-	1954/03	9.67	-	1957/03	12.67			HE50	
1939	1-12	12/31	1945/08	8	-	1954/03	8.67	-	1955/03	9.67	-	1958/03	12.67			HE50	
1940	1-12	12/31	1946/08	8	-	1955/03	8.67	-	1956/03	9.67	-	1959/03	12.67			HE50	
1941	1-12	12/31	1947/08	8	-	1956/03	8.67	-	1957/03	9.67	-	1960/03	12.67			HE50	
1942	1-12	06/30	1949/04	8	-	1957/03	8	-	1959/03	10	-	1962/03	13	HE48			
1943	1-12	06/30	1949/04	8	-	1957/03	8	-	1959/03	10	-	1962/03	13	HE48			
1943	1-6	06/30	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13				
1944	1-6	06/30	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13				
1944	7-12	06/30	1951/04	8	-	1959/03	8	-	1961/03	10	-	1964/03	13				
1945	1-6	06/30	1951/04	8	-	1959/03	8	-	1961/03	10	-	1964/03	13				
1945	7-12	06/30	1952/04	8	0	1960/03	8	0	1962/03	10	0	1965/03	13				
1946	1-6	06/30	1952/04	8	0	1960/03	8	0	1962/03	10	0	1965/03	13				
1946	7-12	06/30	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13				
1947	1-6	06/30	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13				
1947	7-12	06/30	1954/04	8	0	1962/03	8	0	1964/03	10	1	1966/11	12.67				HE65
1948	1-6	06/30	1954/04	8	0	1962/03	8	0	1964/03	10	1	1966/11	12.67				HE65
1948	7-12	06/30	1955/04	8	0	1963/03	8	0	1965/03	10	2	1967/07	12.33				HE65
1949	1-6	06/30	1955/04	8	0	1963/03	8	0	1965/03	10	2	1967/07	12.33				HE65
1949	7-12	06/30	1956/04	8	0	1964/03	8	0	1966/03	10	2	1968/07	12.33				HE65
1950	1-6	06/30	1956/04	8	0	1964/03	8	0	1966/03	10	2	1968/07	12.33				HE65
1950	7-12	03/31	1957/04	8	0	1965/03	8	1	1966/11	9.67	2	1969/07	12.33	HE56			HE65
1951	1-3	03/31	1957/04	8	0	1965/03	8	1	1966/11	9.67	2	1969/07	12.33	HE56			HE65
1951	4-12	03/31	1958/04	8	0	1966/03	8	2	1967/07	9.33	2	1970/07	12.33				HE65
1952	1-3	03/31	1958/04	8	0	1966/03	8	2	1967/07	9.33	2	1970/07	12.33				HE65
1952	4-12	03/31	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1971/07	12.33		HE65		HE65
1953	1-3	03/31	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1971/07	12.33		HE65		HE65
1953	4-12	03/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33				HE65
1954	1-3	03/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33				HE65
1954	4-12	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33				HE65
1955	1-3	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33				HE65
1955	4-12	12/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33	HE61			HE65
1956	1-12	12/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33				HE65
1957	1-12	12/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33				HE65
1958	1-12	12/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33				HE65
1959	1-12	12/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.33				HE65
1960	1-11	11/30	1966/12	9	1	1975/07	8.67	1	1976/07	9.67	1	1979/07	12.67	HE65			HE65
1960	12	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	HE65			HE65
1961	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	7-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

Notes: This table lists for students of birth years 1935 through 1965 and residence in Hesse for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) (for basic track students column (5)) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Hesse, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12).

Table B.7: Lower Saxony

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1950/03	8.67	-	1951/03	9.67	-	1954/03	12.67				NI48
1936	1-12	12/31	1942/08	8	-	1951/03	8.67	-	1952/03	9.67	-	1955/03	12.67				NI48
1937	1-12	12/31	1943/08	8	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67				NI48
1938	1-12	12/31	1944/08	8	-	1953/03	8.67	-	1954/03	9.67	-	1957/03	12.67				NI48
1939	1-12	12/31	1945/08	8	-	1954/03	8.67	-	1955/03	9.67	-	1958/03	12.67				NI53
1940	1-3	03/31	1946/04	8	-	1954/03	8	-	1955/03	10	-	1959/03	13	NI45			
1940	4-12	03/31	1947/04	8	-	1955/03	8	-	1957/03	10	-	1960/03	13				
1941	1-3	03/31	1947/04	8	-	1955/03	8	-	1957/03	10	-	1960/03	13				
1941	4-12	06/30	1948/04	8	-	1956/03	8	-	1958/03	10	-	1961/03	13	NI48			
1942	1-6	06/30	1948/04	8	-	1956/03	8	-	1958/03	10	-	1961/03	13	NI48			
1942	7-12	06/30	1949/04	8	-	1957/03	8	-	1959/03	10	-	1962/03	13				
1943	1-6	06/30	1949/04	8	-	1957/03	8	-	1959/03	10	-	1962/03	13				
1943	7-12	06/30	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13				
1944	1-6	06/30	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13				
1944	7-12	06/30	1951/04	8	-	1959/03	8	-	1961/03	10	-	1964/03	13				
1945	1-6	06/30	1951/04	8	-	1959/03	8	-	1961/03	10	-	1964/03	13				
1945	7-12	06/30	1952/04	8	-	1960/03	8	0	1962/03	10	0	1965/03	13				
1946	1-6	06/30	1952/04	8	0	1960/03	8	0	1962/03	10	0	1965/03	13				
1946	7-12	06/30	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13				
1947	1-6	06/30	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13				
1947	7-12	06/30	1954/04	9	0	1963/03	9	0	1964/03	10	0	1966/11	12.67		NI54		NI66
1948	1-6	06/30	1954/04	9	0	1963/03	9	0	1964/03	10	1	1966/11	12.67		NI54		NI66
1948	7-12	03/31	1955/04	9	0	1964/03	9	0	1965/03	10	2	1967/07	12.33	NI54			NI66
1949	1-3	03/31	1955/04	9	0	1964/03	9	0	1965/03	10	2	1967/07	12.33	NI54			NI66
1949	4-12	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	2	1968/07	12.33				NI66
1950	1-3	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	2	1968/07	12.33				NI66
1950	4-12	03/31	1957/04	9	0	1966/03	9	1	1966/11	9.67	2	1969/07	12.33				NI66
1951	1-3	03/31	1957/04	9	0	1966/03	9	1	1966/11	9.67	2	1969/07	12.33				NI66
1951	4-12	03/31	1958/04	9	0	1967/03	9	2	1967/07	9.33	2	1970/07	12.33				NI66
1952	1-3	03/31	1958/04	9	0	1967/03	9	2	1967/07	9.33	2	1970/07	12.33				NI66
1952	4-12	03/31	1959/04	9	0	1968/03	9	2	1968/07	9.33	2	1971/07	12.33				NI66
1953	1-3	03/31	1959/04	9	0	1968/03	9	2	1968/07	9.33	2	1971/07	12.33				NI66
1953	4-12	03/31	1960/04	9	0	1969/03	9	2	1969/07	9.33	2	1972/07	12.33				NI66
1954	1-3	03/31	1960/04	9	0	1969/03	9	2	1969/07	9.33	2	1972/07	12.33				NI66
1954	4-12	03/31	1961/04	9	0	1970/03	9	0	1971/03	10	2	1973/07	12.33				NI66
1955	1-3	03/31	1961/04	9	0	1970/03	9	0	1971/03	10	2	1973/07	12.33				NI66
1955	4-12	03/31	1962/04	9	0	1971/03	9	0	1972/03	10	2	1974/07	12.33				NI66
1956	1-3	03/31	1962/04	9	0	1971/03	9	0	1973/03	10	2	1975/07	12.33				NI66
1956	4-12	03/31	1963/04	9	0	1972/03	9	0	1973/03	10	2	1975/07	12.33				NI66
1957	1-3	03/31	1963/04	9	0	1972/03	9	0	1973/03	10	2	1975/07	12.33				NI66
1957	4-12	03/31	1964/04	9	0	1973/03	9	0	1974/03	10	2	1976/07	12.33				NI66
1958	1-3	03/31	1964/04	9	0	1973/03	9	0	1974/03	10	2	1976/07	12.33				NI66
1958	4-12	03/31	1965/04	9	0	1974/03	9	0	1975/03	10	2	1977/07	12.33				NI66
1959	1-3	03/31	1965/04	9	0	1974/03	9	0	1975/03	10	2	1977/07	12.33				NI66
1959	4-12	03/31	1966/04	9	0	1975/03	9	0	1976/03	10	2	1978/07	12.33				NI66
1960	1-3	03/31	1966/04	9	0	1975/03	9	0	1976/03	10	2	1978/07	12.33				NI66
1960	4-12	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	NI66			NI66
1961	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	7-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1971/08	9	0	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

*Notes:* This table lists for students of birth years 1935 through 1965 and residence in Lower Saxony for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) (for basic track students column (5)) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Lower Saxony, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12) (see Section 2 for more details on the divergent pattern of short school years compared to other treatment states).



Table B.8: North Rhine-Westphalia

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1950/03	8.67	-	1951/03	9.67	-	1954/03	12.67			NW49	
1936	1-12	12/31	1942/08	8	-	1951/03	8.67	-	1952/03	9.67	-	1955/03	12.67			NW49	
1937	1-12	12/31	1943/08	8	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67			NW49	
1938	1-12	12/31	1944/08	8	-	1953/03	8.67	-	1954/03	9.67	-	1957/03	12.67			NW49	
1939	1-12	12/31	1945/08	8	-	1954/03	8.67	-	1955/03	9.67	-	1958/03	12.67			NW53	
1940	1-12	12/31	1946/04	8	-	1954/03	8	-	1955/03	10	-	1959/03	13				
1941	1-12	12/31	1947/04	8	-	1955/03	8	-	1957/03	10	-	1960/03	13				
1942	1-12	12/31	1948/04	8	-	1956/03	8	-	1958/03	10	-	1961/03	13				
1943	1-12	12/31	1949/04	8	-	1957/03	8	-	1959/03	10	-	1962/03	13	NW49			
1944	1-6	06/30	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13				
1945	7-12	06/30	1951/04	8	-	1959/03	8	-	1961/03	10	-	1964/03	13				
1946	1-6	06/30	1952/04	8	-	1960/03	8	-	1962/03	10	-	1965/03	13				
1947	7-12	06/30	1953/04	8	0	1961/03	8	0	1962/03	10	0	1966/03	13				
1948	1-6	06/30	1954/04	8	0	1962/03	8	0	1963/03	10	0	1967/03	13				
1949	1-6	06/30	1955/04	8	0	1963/03	8	0	1964/03	10	1	1966/11	12.67				NW66
1950	1-6	06/30	1956/04	8	0	1964/03	8	0	1965/03	10	2	1967/07	12.67				NW66
1951	1-6	06/30	1957/04	8	0	1965/03	8	0	1966/03	10	2	1968/07	12.67				NW66
1952	1-6	06/30	1958/04	8	0	1966/03	8	0	1967/03	10	2	1969/07	12.67				NW66
1953	1-6	06/30	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1970/07	12.67		NW66		NW66
1954	1-6	06/30	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1971/07	12.67		NW66		NW66
1955	4-12	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1972/07	12.67		NW66		NW66
1956	1-3	03/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1973/07	12.67	NW60			NW66
1957	1-3	03/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1974/07	12.67	NW60			NW66
1958	4-12	03/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1975/07	12.67				NW66
1959	1-3	03/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.67				NW66
1960	4-12	03/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.67				NW66
1961	1-3	03/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.67				NW66
1962	4-11	11/30	1966/12	9	1	1975/07	8.67	1	1976/07	9.67	1	1979/07	12.67	NW66			NW66
1963	12	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	NW66			NW66
1964	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				NW66
1965	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				NW66
1966	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				NW66
1967	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				NW66
1968	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				NW66
1969	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				NW66
1970	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				NW66
1971	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				NW66

Notes: This table lists for students of birth years 1935 through 1965 and residence in North Rhine-Westphalia for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) for basic track students column (5) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For North Rhine-Westphalia, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12).

Table B.9: Rhineland-Palatine

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1949/07	8	-	1951/03	9.67	-	1954/03	12.67				RP52
1936	1-12	12/31	1942/08	8	-	1950/07	8	-	1952/03	9.67	-	1955/03	12.67				RP52
1937	1-12	12/31	1943/08	8	-	1951/07	8	-	1953/03	9.67	-	1956/03	12.67				RP52
1938	1-12	12/31	1944/08	8	-	1952/07	8	-	1954/03	9.67	-	1957/03	12.67				RP52
1939	1-12	12/31	1945/08	8	-	1953/07	8	-	1955/03	9.67	-	1958/03	12.67				RP52
1940	1-12	12/31	1946/08	8	-	1954/07	8	-	1956/03	9.67	-	1959/03	12.67				RP52
1941	1-12	12/31	1947/08	8	-	1955/07	8	-	1957/03	9.67	-	1960/03	12.67				RP52
1942	1-12	12/31	1948/08	8	-	1956/07	8	-	1958/03	9.67	-	1961/03	12.67				
1943	1-12	03/31	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13	RP49			
1944	1-3	03/31	1950/04	8	-	1958/03	8	-	1960/03	10	-	1963/03	13	RP49			
1945	4-12	03/31	1951/04	8	-	1959/03	8	-	1961/03	10	-	1964/03	13				
1946	4-12	03/31	1952/04	8	0	1960/03	8	0	1962/03	10	0	1965/03	13				
1947	4-12	03/31	1953/04	8	0	1961/03	8	0	1963/03	10	0	1966/03	13				
1948	4-12	03/31	1954/04	8	0	1962/03	8	0	1964/03	10	1	1966/11	12.67				RP66
1949	4-12	03/31	1955/04	8	0	1963/03	8	0	1965/03	10	2	1967/07	12.33				RP66
1950	1-3	03/31	1956/04	8	0	1964/03	8	0	1966/03	10	2	1968/07	12.33				RP66
1951	4-12	03/31	1957/04	8	0	1965/03	8	1	1966/11	9.67	2	1969/07	12.33				RP66
1952	1-3	03/31	1958/04	8	0	1966/03	8	2	1967/07	9.33	2	1970/07	12.33				RP66
1953	4-12	03/31	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1971/07	12.33		RP66		RP66
1954	4-12	03/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33		RP66		RP66
1955	4-12	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33		RP66		RP66
1956	1-3	03/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33		RP66		RP66
1957	4-12	03/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33		RP66		RP66
1958	1-3	03/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33		RP66		RP66
1959	4-12	03/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33		RP66		RP66
1960	4-12	03/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.33		RP66		RP66
1961	12	11/30	1966/12	9	1	1975/07	8.33	2	1976/07	9.33	2	1978/07	12.33		RP66		RP66
1962	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13		RP66		RP66
1963	7-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13		RP66		RP66
1964	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13		RP66		RP66
1965	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13		RP66		RP66
1966	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13		RP66		RP66

Notes: This table lists for students of birth years 1935 through 1965 and residence in Rhineland-Palatine for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) (for basic track students column (5)) and start of the school year reforms - either in line with the Disseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Rhineland-Palatine, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12).

Table B.10: Saarland

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	8	-	1949/07	8	-	1951/07	10	-	1954/07	13				
1936	1-12	12/31	1942/08	8	-	1950/07	8	-	1952/07	10	-	1955/07	13				
1937	1-12	12/31	1943/08	8	-	1951/07	8	-	1953/07	10	-	1956/07	13				
1938	1-12	12/31	1944/08	8	-	1952/07	8	-	1954/07	10	-	1957/03	12.67			SL59	
1939	1-12	12/31	1945/08	8	-	1953/07	8	-	1955/07	10	-	1958/03	12.67			SL59	
1940	1-12	12/31	1946/08	8	-	1954/07	8	-	1956/07	10	-	1959/03	12.67			SL59	
1941	1-12	12/31	1947/08	8	-	1955/07	8	-	1957/03	9.67	-	1961/03	12.67			SL59	
1942	1-12	12/31	1948/08	8	-	1956/07	8	-	1958/03	9.67	-	1962/03	12.67			SL59	
1943	1-12	12/31	1949/08	8	-	1957/03	8.67	-	1959/03	9.67	-	1963/03	12.67			SL59	
1944	1-12	12/31	1950/08	8	-	1958/03	8.67	-	1960/03	9.67	-	1964/03	12.67			SL59	
1945	1-12	12/31	1951/08	8	-	1959/03	8.67	-	1961/03	9.67	-	1965/03	12.67			SL59	
1946	1-12	12/31	1952/08	8	-	1960/03	8.67	-	1962/03	9.67	-	1966/03	12.67			SL59	
1947	1-12	12/31	1953/08	8	x	1961/03	8.67	x	1963/03	9.67	x	1966/11	12.33	SL54		SL59	
1948	1-9	09/30	1954/08	8	x	1962/03	8.67	x	1964/03	9.67	x	1967/07	12			SL59	
1948	10-12	09/30	1955/08	8	x	1963/03	8.67	x	1965/03	9.67	x	1967/07	12			SL59	
1949	1-9	09/30	1955/08	8	x	1963/03	8.67	x	1965/03	9.67	x	1968/07	12			SL59	
1949	10-12	09/30	1956/08	8	x	1964/03	8.67	x	1966/03	9.67	x	1968/07	12			SL59	
1950	1-9	09/30	1956/08	8	x	1964/03	8.67	x	1966/03	9.67	x	1968/07	12			SL59	
1950	10-12	09/30	1957/04	8	0	1965/03	8	1	1966/11	9.67	2	1969/07	12.33			SL66	
1951	1-9	09/30	1957/04	8	0	1965/03	8	1	1966/11	9.67	2	1969/07	12.33	SL58		SL66	
1951	10-12	12/31	1958/04	8	0	1966/03	8	2	1967/07	9.33	2	1970/07	12.33	SL58		SL66	
1952	1-12	12/31	1958/04	8	0	1966/03	8	2	1967/07	9.33	2	1970/07	12.33	SL59	SL66		
1953	1-3	03/31	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1971/07	12.33			SL66	
1953	4-12	03/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33			SL66	
1954	1-3	03/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33			SL66	
1954	4-12	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33			SL66	
1955	1-3	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33			SL66	
1955	4-12	03/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33			SL66	
1956	1-3	03/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33			SL66	
1956	4-12	03/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33			SL66	
1957	1-3	03/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33			SL66	
1957	4-12	03/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33			SL66	
1958	1-3	03/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33			SL66	
1958	4-12	03/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33			SL66	
1959	1-3	03/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33			SL66	
1959	4-12	03/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.33			SL66	
1960	1-3	03/31	1966/04	9	2	1974/07	8.33	2	1975/07	9.33	2	1978/07	12.33			SL66	
1960	4-12	12/31	1966/12	9	1	1975/07	8.67	1	1976/07	9.67	1	1979/07	12.67	SL66		SL66	
1961	1-9	09/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13				
1961	10-12	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1962	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1963	7-12	06/30	1969/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1964	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1965	1-6	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				
1965	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

*Notes:* This table lists for students of birth years 1935 through 1965 and residence in Saarland for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) (for basic track students column (5)) and start of the school year reforms - either in line with the Dusseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Saarland, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12). Saarland joined the Federal Republic of Germany in 1957 and was the last West-German state to implement the move of the school year to Easter in line with the DA. Consequently, there is an overlap between the DA and the subsequent HA reform, resulting in divergent duration of the schooling phase for school starting years up until 1957. Affected years are marked with an x in columns (6), (9), and (12).

Table B.11: Schleswig-Holstein

Birth		School Start		Basic: Graduation			Middle: Graduation			Academic: Graduation			Law Sources				
Year (1)	Mths (2)	Cut-Off (3)	Year/Mth (4)	CPS (5)	SSY (6)	Year/Mth (7)	SchYrs (8)	SSY (9)	Year/Mth (10)	SchYrs (11)	SSY (12)	Year/Mth (13)	SchYrs (14)	Cut-Off (15)	CPS (16)	DA (17)	HA (18)
1935	1-12	12/31	1941/08	9	-	1950/03	8.67	-	1951/03	9.67	-	1954/03	12.67	SH55	SH47	SH46	SH46
1936	1-12	12/31	1942/08	9	-	1951/03	8.67	-	1952/03	9.67	-	1955/03	12.67				
1937	1-12	12/31	1943/08	9	-	1952/03	8.67	-	1953/03	9.67	-	1956/03	12.67				
1938	1-12	12/31	1944/08	9	-	1953/03	8.67	-	1954/03	9.67	-	1957/03	12.67				
1939	1-12	12/31	1945/08	9	-	1954/03	8.67	-	1955/03	9.67	-	1958/03	12.67				
1940	1-3	03/31	1946/04	9	-	1955/03	9	-	1956/03	10	-	1959/03	13				
1941	4-12	03/31	1947/04	9	-	1956/03	9	-	1957/03	10	-	1960/03	13				
1942	1-3	03/31	1948/04	9	-	1957/03	9	-	1958/03	10	-	1961/03	13				
1943	1-3	03/31	1948/04	9	-	1957/03	9	-	1958/03	10	-	1961/03	13				
1944	1-3	03/31	1949/04	9	-	1958/03	9	-	1959/03	10	-	1962/03	13				
1945	4-12	03/31	1950/04	9	-	1959/03	9	-	1960/03	10	-	1963/03	13				
1946	1-3	03/31	1951/04	9	-	1960/03	9	-	1961/03	10	-	1964/03	13				
1947	1-3	03/31	1952/04	9	0	1961/03	9	0	1962/03	10	0	1965/03	13				
1948	4-12	03/31	1953/04	9	0	1962/03	9	0	1963/03	10	0	1966/03	13				
1949	1-3	03/31	1954/04	9	0	1963/03	9	0	1964/03	10	1	1966/11	12.67				SH66
1950	4-12	03/31	1955/04	9	0	1964/03	9	0	1965/03	10	2	1967/07	12.33				SH66
1951	1-3	03/31	1956/04	9	0	1965/03	9	0	1966/03	10	2	1968/07	12.33				SH66
1952	1-3	03/31	1957/04	9	0	1966/03	9	1	1967/11	9.67	2	1969/07	12.33				SH66
1953	4-12	03/31	1958/04	9	1	1966/11	8.67	2	1967/07	9.33	2	1970/07	12.33				SH66
1954	1-3	03/31	1959/04	9	2	1967/07	8.33	2	1968/07	9.33	2	1971/07	12.33				SH66
1955	1-3	03/31	1960/04	9	2	1968/07	8.33	2	1969/07	9.33	2	1972/07	12.33				SH66
1956	4-12	03/31	1961/04	9	2	1969/07	8.33	2	1970/07	9.33	2	1973/07	12.33				SH66
1957	1-3	03/31	1962/04	9	2	1970/07	8.33	2	1971/07	9.33	2	1974/07	12.33				SH66
1958	4-12	03/31	1963/04	9	2	1971/07	8.33	2	1972/07	9.33	2	1975/07	12.33				SH66
1959	1-12	12/31	1964/04	9	2	1972/07	8.33	2	1973/07	9.33	2	1976/07	12.33	SH63			SH66
1960	1-12	12/31	1965/04	9	2	1973/07	8.33	2	1974/07	9.33	2	1977/07	12.33				SH66
1961	1-11	11/30	1966/12	9	1	1975/07	8.67	1	1976/07	9.67	1	1979/07	12.67	SH66			SH66
1962	1-6	06/30	1967/08	9	0	1976/07	9	0	1977/07	10	0	1980/07	13	SH66			SH66
1963	1-6	06/30	1968/08	9	0	1977/07	9	0	1978/07	10	0	1981/07	13				
1964	7-12	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1965	1-6	06/30	1969/08	9	0	1978/07	9	0	1979/07	10	0	1982/07	13				
1966	7-12	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1967	1-6	06/30	1970/08	9	0	1979/07	9	0	1980/07	10	0	1983/07	13				
1968	7-12	06/30	1971/08	9	-	1980/07	9	-	1981/07	10	-	1984/07	13				

Notes: This table lists for students of birth years 1935 through 1965 and residence in Schleswig-Holstein for each school track, the regular duration of the schooling phase (column (8) for basic, (11) for middle, and (14) for academic) based on a comprehensive collection of state education laws (see columns (15)-(18) and compilation in Table B.12). In addition to track choice, the regular duration of the schooling phase depends on individuals birth year and month (columns (1) and (2)), the legal age cut-off date for school entry (column (3)), the subsequent date of school entry (column (4)), changes concerning compulsory schooling (CPS) for basic track students column (5) and start of the school year reforms - either in line with the Düsseldorf Accord (DA) (moving start of the school year from fall to Easter) or with the Hamburg Accord (HA) (changing it from Easter back to fall). For Schleswig-Holstein, the number of short school years that stem from the latter policy reform are indicated in columns (6), (9), and (12).

Table B.12: Law Sources Overview

Abbr.	Type	Title	Date	Source	Link
<b>Berlin</b>					
BE48	Erstfassung	Schulgesetz für Groß-Berlin	26.06.1948	VOBl. I 1948, 358	<a href="#">Link</a>
BE51	Erstfassung	Dritte Durchführungsverordnung zum Schulgesetz für Berlin	13.12.1951	GVBl. 1951, 1147	<a href="#">Link</a>
BE55	Änderung	Drittes Gesetz zur Änderung des Schulgesetzes für Berlin	09.08.1955	GVBl. 1955, 723	<a href="#">Link</a>
BE66	Neufassung	Bekanntmachung der Neufassung des Schulgesetzes für Berlin	13.09.1966	GVBl. 1966, 1485	<a href="#">Link</a>
<b>Baden-Württemberg</b>					
BW52	Erstfassung	Das badische Landesgesetz über Schuljahranfang und Beginn der Schulpflicht vom 12.2.1952	12.02.1952	GVBl. 1952, 25	
BW53	Neufassung	Gesetz über Schuljahr und Schulpflicht	09.03.1953	GBL. 1953, 17	<a href="#">Link</a>
BW57	Änderung	Gesetz zur Änderung des Gesetzes über Schuljahr und Schulpflicht	09.12.1957	GBL. 1957, 147	<a href="#">Link</a>
BW64	Erstfassung	Gesetz zur Vereinheitlichung und Ordnung des Schulwesens (SchVOG)	05.05.1964	GBL. 1964, 235	
BW66	Änderung	Gesetz zur Änderung des Gesetzes zur Vereinheitlichung und Ordnung des Schulwesens	29.03.1964	GBL. 1966, 47	<a href="#">Link</a>
<b>Bavaria</b>					
BY52	Erstfassung	Schulpflichtgesetz	15.01.1952	GVBl. 1952, 11	
BY69	Änderung	Änderung des Gesetzes über die Schulpflicht (Schulpflichtgesetz)	15.04.1969	GVBl. 1969, 97	
<b>Bremen</b>					
HB46	Bekanntmachung	Anmeldung für die Grundschule für das Schuljahr 1946/47	16.02.1946	Weser Kurier	
HB48	Bekanntmachung	Versorgung der Ostern 1948 in das 1. Schuljahr der Volksschule eintretenden Kinder	04.03.1948	Weser Kurier	
HB57	Neufassung	Gesetz über das Schulwesen der Freien Hansestadt Bremen	25.05.1957	GBL. 1957, 57	<a href="#">Link</a>
HB65	Änderung	Gesetz über die Erweiterung der Schulpflicht für das Schuljahr 1966	09.11.1965	GBL. 1965, 137	<a href="#">Link</a>
HB67	Neufassung	Bekanntmachung der Neufassung des Gesetzes über das Schulwesen der Freien Hansestadt Bremen	01.06.1967	GBL. 1967, 65	<a href="#">Link</a>
<b>Hamburg</b>					
HH41	Bekanntmachung	Schreiben des Schulrats an die Leitungen der Mittel-, Volks-, Sonder- und Hilfsschulen: Beginn des Schuljahres und der Schulpflicht	26.03.1941	Staatsarchiv HH, 361-2 VI, 356-10	
HH45	Bekanntmachung	Schreiben des Schulrats an die Leitungen der Volks- und Mittelschulen: Verlängerung des Schuljahres 1945	02.11.1945	Staatsarchiv HH, 361-2 VI, 356-22	
HH49a	Bekanntmachung	Schreiben des Senators an die Leitungen sämtlicher Schulen: Schulentlassung 1950	27.06.1949	Staatsarchiv HH, 361-2 VI, 356-27	
HH49b	Erstfassung	Gesetz über das Schulwesen der Hansestadt Hamburg	25.10.1949	GVBl. 1949, 257	<a href="#">Link</a>
HH61	Änderung	Zweites Gesetz zur Änderung des Gesetzes über das Schulwesen der Freien und Hansestadt Hamburg	03.10.1961	GVBl. 1961, 316	<a href="#">Link</a>
HH66	Erstfassung	Schulgesetz der Freien und Hansestadt Hamburg	09.12.1966	GVBl. 1966, 257	<a href="#">Link</a>
<b>Hesse</b>					
HE48	Amtsblatt	Erlass vom 18.08.1948	01.09.1948	ABl. 5 1948, 121	

Continued on next page

Table B.12: Law Sources Overview (continued)

Abbr.	Type	Title	Date	Source	Link
HE50	Erstfassung	Gesetz über die Schulpflicht im Lande Hessen (Schulpflichtgesetz)	27.05.1950	GVBl. 1950, 68	<a href="#">Link</a>
HE56	Änderung	Drittes Gesetz zur Änderung des Schulpflichtgesetzes	07.12.1956	GVBl. 1956, 163	<a href="#">Link</a>
HE61	Neufassung	Hessisches Schulpflichtgesetz	17.05.1961	GVBl. 1961, 69	<a href="#">Link</a>
HE65	Neufassung	Bekanntmachung der Neufassung des Hessischen Schulpflichtgesetzes	01.12.1965	GVBl. 1965, 323	<a href="#">Link</a>
<b>Lower Saxony</b>					
NI45	Anordnung	Schreiben des Oberpräsident der Provinz Hannover	27.12.1945	Nds 120 Lüneburg Acc. 165, 86 Nr. 217	
NI48	Änderung	Gesetz zur Änderung der Schulpflicht in Niedersachsen	21.12.1948	GVBl. 1948, 184	
NI53	Erstfassung	Gesetz zur Bestimmung der Schulpflicht für die Geburtenjahrgänge 1939 bis 1943	16.01.1953	GVBl. 1953, 5	<a href="#">Link</a>
NI54	Erstfassung	Gesetz über das öffentliche Schulwesen in Niedersachsen	14.09.1954	GVBl. 1954, 89	<a href="#">Link</a>
NI66	Neufassung	Bekanntmachung der Neufassung des Gesetzes über das öffentliche Schulwesen in Niedersachsen	27.06.1966	GVBl. 1966, 127	<a href="#">Link</a>
<b>North-Rhine Westphalia</b>					
NW49	Neufassung	Gesetz zur Änderung des Gesetzes über die Schulpflicht im Deutschen Reich (Reichsschulpflichtgesetz)	27.07.1949	GVBl. 1949, 244	
NW53	Änderung	Gesetz zur Änderung des Gesetzes über die Schulpflicht im Deutschen Reich (Reichsschulpflichtgesetz) vom 6. Juli 1938 in der Fassung vom 27. Juli 1949	10.02.1953	GVBl. 1953, 166	<a href="#">Link</a>
NW60	Änderung	Gesetz zur Änderung des Gesetzes über die Schulpflicht im Deutschen Reich (Reichsschulpflichtgesetz)	29.06.1960	GVBl. 1960, 198	<a href="#">Link</a>
NW66	Neuerlass	Gesetz über die Schulpflicht im Lande Nordrhein-Westfalen (Schulpflichtgesetz - SchpflG)	14.06.1966	GVBl. 1966, 365	<a href="#">Link</a>
<b>Reichsgesetzgebung</b>					
R38	Erstfassung	Gesetz über die Schulpflicht im Deutschen Reich	06.07.1938	RGBl. I 1938, 799	<a href="#">Link</a>
R41	Verordnung	Zweite Verordnung zur Durchführung des Reichsschulpflichtgesetzes	16.05.1941	RGBl. I 1941, 283	<a href="#">Link</a>
<b>Rhineland-Palatine</b>					
RP49	Erstfassung	Nr. 204 Aufnahme von Schulneulingen für die Volksschulen	01.07.1949	Runderlass Ministerium für Unterricht und Kultus II, E 2 Tgb., Nr. 851-49	
RP52	Änderung	Landesgesetz zur Änderung des Reichsschulpflichtgesetzes	28.03.1952	GVBl. 1952, 67	<a href="#">Link</a>
RP66	Neufassung	Bekanntmachung der Neufassung des Schulpflichtgesetzes	23.08.1966	GVBl. 1966, 243	<a href="#">Link</a>
<b>Saarland</b>					
SL54	Änderung	Gesetz Nr. 422 zur Änderung des Gesetzes über die Schulpflicht im Deutschen Reich (Reichsschulpflichtgesetz) vom 6. Juli 1938 in der Fassung vom 16. Mai 1941	07.07.1954	ABl. 1954, 831	

Continued on next page

Table B.12: Law Sources Overview (continued)

Abbr.	Type	Title	Date	Source	Link
SL58	Änderung	Gesetz Nr. 621 zur Änderung des Gesetzes über die Schulpflicht im Deutschen Reich (Reichsschulpflichtgesetz) vom 6. Juli 1938 in der Fassung vom 07. Juli 1954	14.02.1958	ABl. 1958, 297	<a href="#">Link</a>
SL59	Änderung	Gesetz Nr. 663 zur Änderung des Gesetzes über die Schulpflicht im Deutschen Reich (Reichsschulpflichtgesetz) vom 6. Juli 1938 in der Fassung vom 14.02.1958	06.02.1959	ABl. 1959, 598	<a href="#">Link</a>
SL66	Erstfassung	Gesetz Nr. 826 über die Schulpflicht im Saarland (Schulpflichtgesetz)	11.03.1966	ABl. 1966, 205	<a href="#">Link</a>
<b>Schleswig-Holstein</b>					
SH46	Amtsblatt	Erlass des Amts für Volksbildung vom 22.7. 1946	22.07.1946	ABl. 1946, 10	
SH47	Erstfassung	Gesetz betreffend die Wiedereinführung des 9. Schuljahres	11.02.1947	GVOBl. 1947, 10	<a href="#">Link</a>
SH55	Erstfassung	Gesetz über die Schulpflicht	05.12.1955	GVOBl. 1955, 169	<a href="#">Link</a>
SH63	Änderung	Gesetz zur Änderung des Gesetzes über die Schulpflicht	25.09.1963	GVOBl. 1963, 115	<a href="#">Link</a>
SH66	Änderung	Zweites Gesetz zur Änderung des Gesetzes über die Schulpflicht	06.04.1966	GVOBl. 1966, 88	<a href="#">Link</a>

*Notes:* The table collects all law sources used to disentangle school-entry cut-off rules, compulsory schooling (CPS), and start of the school year reforms, either in line with the Düsseldorf Accord (DA) moving start of the school year from fall to Easter or in line with the Hamburg Accord (HA) changing the start of the school year from Easter back to fall for the birth cohorts 1935-1965 in all federal states from West Germany displayed in table B.1-table B.11.