

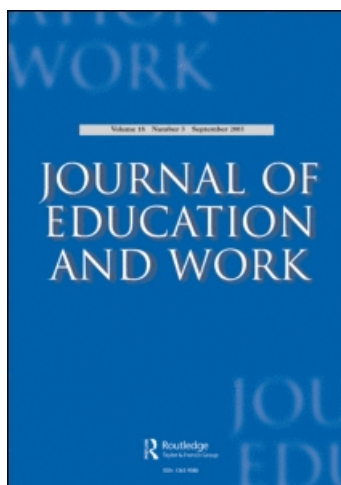
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### Why are higher education participation rates in Germany so low? Institutional barriers to higher education expansion

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## **Why are higher education participation rates in Germany so low? Institutional barriers to higher education expansion**

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Countries around the world have witnessed educational expansion at all levels, leading to the massification of tertiary education and training. Tertiary education has become a major factor of economic competitiveness in an increasingly science-based global economy and a key response to shifts in national labour markets. Within the EU, the reform of skill formation systems has been advanced by the Lisbon strategy, with the Bologna and Copenhagen processes in higher education (HE) and vocational education and training (VET) articulating and diffusing overarching goals in European skill formation. If European benchmarks call for at least 40% of all 30- to 34-year-olds to hold a tertiary-level certificate, Germany exhibits a relatively low proportion of each cohort entering HE and attaining that qualification level (28%). We analyse this 'German exceptionalism', locating a range of factors in the educational system: the institutional logic of segregation, the structure of secondary schooling, the division or schism between the organisational fields of VET and HE, and limited permeability throughout. Regardless of isomorphic pressures that led Germany to quickly implement undergraduate bachelor's (BA) and graduate master's (MA) courses of study, these factors limit the extent of HE expansion visible among other European countries.

**Keywords:** higher education; vocational training; educational expansion; Europeanisation; Germany

### **Introduction: educational expansion and German exceptionalism**

Countries around the world have witnessed educational expansion at all levels, leading to the massification of tertiary education and training, with annual growth rates of over 5% between 1991 and 2004 (OECD 2008). Indeed, by 2000, over 100 million people were enrolled in tertiary education worldwide, and elites everywhere share common frames of references that favour it (Schofer and Meyer 2005). Further global phenomena, such as the ongoing

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shift from production to services as the key economic sector (tertiarisation), have major consequences for educational systems, labour markets and social stratification. The knowledge that tertiary education credentials provide the best access to high-skilled positions in labour markets has similarly stimulated increased public and private investment in skill formation.

In the European Union (EU), the reform of skill formation systems has been advanced by the Lisbon strategy – ‘to make Europe the most dynamic and competitive knowledge-based economy in the world’ (European Council 2004). The Bologna (1999) and Copenhagen (2002) declarations in higher education (HE) and vocational education and training (VET), respectively, have articulated such overarching goals in European skill formation. However, countries within Europe differ considerably in their HE institutions and organisations and in participation and attainment rates at various levels. The European benchmarks for ‘Education and Training 2020’ call for at least 40% of all 30- to 34-year-olds to hold tertiary-level certificates.

Yet Germany, the heavily export-oriented economy at the heart of Europe, continues to exhibit a relatively low proportion of each cohort entering HE and attaining such higher general qualifications. Germany’s tertiary attainment rate, of 30- to 35-year-olds, in 2008 was only 28% (including professional schools, technical colleges and universities), while the EU-27 already showed an average rate of 31% (Autorengruppe Bildungsberichterstattung 2010, 11). Over the past decade, Germany’s tertiary participation and graduation rates have grown significantly less than in other countries.<sup>1</sup>

In this paper, we address this ‘German exceptionalism’, locating a range of factors in institutionalised skill formation systems that resulted in Germany having not only a low participation rate in tertiary education but also showing among the lowest growth rates in tertiary education in Europe (OECD 2008, Figure 2.3).<sup>2</sup> While Schofer and Meyer (2005) find that tertiary systems expanded fastest in those countries with expanded secondary systems and with strong links to the ‘world polity’, Germany does not fit this pattern well. This can only partially be attributed to the HE *contraction* seen in the last decades of the German Democratic Republic (Baker, Köhler, and Stock 2007).<sup>3</sup> Two decades after reunification, German universities suffer from a ‘crisis of legitimacy’ due to the maintenance of their traditional (and once globally pre-eminent) model and as a consequence of ideological principles relating to social status and the selectivity of secondary education, but also resulting from the lack of funding as well as the decentralisation of educational governance (Baker and Lenhardt 2008; see also Pritchard 2006).

Extending and further specifying this line of argument, we link the continued slow pace of HE expansion in Germany to ideological and normative commitments to vocationalism (*Beruflichkeit*,<sup>4</sup> see Deißinger 2001), the ‘vocational order’ (Kraus 2007), and to institutional inertia in the stratified structures of secondary schooling and of skill formation systems. Most importantly, the well-developed pathways in VET continue to exert considerable

attraction – even among those youth who have attained the certificate necessary to access tertiary education. Among 30- to 35-year-olds, about 39% hold an *Abitur*, but only 21% have obtained a university degree (Autorengruppe Bildungsberichterstattung 2010, 38).

This resistance to change seems all the more remarkable given Germany's relatively quick implementation of the sequential bachelor's (BA) and master's (MA) courses of study and certificates in HE. Yet these reforms, we argue, do not fundamentally challenge the major barriers to HE expansion, such as supply-side factors of secondary-level educational attainment. The case of Germany furthermore requires the analysis of the *interaction* between reforms and institutional change in *both* HE and VET, because: (1) these organisational fields grew out of the 'institutional logic' (Friedland and Alford 1991) of Germany's segregated educational system (see Powell 2009); and (2) most analyses overlook the complementary and competitive relationship between HE and VET, which is crucial to understanding the value ascribed to particular pathways and choices among HE and vocational training opportunities in cross-national comparison (Powell and Solga 2010).

Thus, to explain Germany's relatively low HE enrolment rates, we proceed as follows. In the first section, we sketch the Europeanisation processes of 'Bologna' and 'Copenhagen' as exogenous forces of institutional isomorphism that directly affect national educational systems as they set standards. We then analyse a range of barriers to further HE expansion in Germany. We focus on the structure and selectivity of secondary education, discuss the ideologically charged debate about the presence of 'too many' generally educated people and 'over-qualification', and examine the lasting impact of the 'educational schism' (Baethge 2006) between the 'decoupled and separated' fields of HE and VET (Dunkel and Le Mouillour 2006). This division relies on a well-developed and innovative VET system that is still the envy of many industrialised and industrialising countries, despite its recent shortcomings. We then present contemporary indicators and trends in skill formation that underscore both the potential of and the challenges that Germany's exceptional skill formation system faces.

### **Global models in skill formation**

The principle that education is valuable as a quintessentially public *and* private good has become consensus worldwide. However, even in highly developed countries, skill formation systems often fail to provide sufficient training opportunities or to bring young adults to attain their degrees on time – or at all. While HE expansion continues at a rapid pace globally, societies continue to struggle with the negative consequences of dropout, of low education, and of mismatch between education and employment (Solga 2008, 2010).

Countries have repeatedly implemented new courses of study and reformed their systems, often looking beyond their borders for guidance and

inspiration. In continuously attempting to ‘borrow and lend’ (Steiner-Khamsi 2004) from successful foreign models, countries are affected by the exogenous pressures of global ideals and principles in skill formation. For example, hoping to increase both performance and equality, they attempt to increase permeability between sectors and levels of skill formation systems. The international diffusion of concepts such as lifelong learning and standards are increasingly specified by international organisations, such as the OECD, via comparative research, benchmarking and agenda-setting (see Jakobi 2009; Meyer 2010). A range of studies emphasise the effects of internationalisation and Europeanisation on HE (Reisz and Stock 2007; Dale and Robertson 2009) and VET (Phillips and Ertl 2003; Clark and Winch 2007). While expansion since the Second World War can be found everywhere, the worldwide diffusion of expectations, values and structures in education and science has not led to convergence, as transnational agenda-setting and rule-making often undergird instead of limit national policies (Krücken 2003). Institutional change resulting from international ideational and economic pressures as well as normative and regulative European influences may well be consistent with national cultural and structural characteristics. And supranational governance has only circumscribed control of education.

Endogenous pressures have also led more and more people to invest in HE in countries throughout the world, usually in the long ago institutionalised organisational fields and forms instead of new ones. Yet worldwide economic changes demand responses from all institutions involved in skill formation – in terms of provision of general, abstract *and* occupational, tacit skills – and thereby affecting vocational, tertiary and continuing education. Accordingly, both types of skills are set forth as ideals, and standardised, in European policies and programmes.

### **European reforms in skill formation: Bologna and Copenhagen**

Pan-European goals in skill formation are specified in the advancing Bologna and Copenhagen processes, which rely on the ‘open method of coordination’ but also extend Europeanisation beyond the borders of the EU (Bosch and Charest 2008). Throughout Europe and beyond, dozens of countries have voluntarily supported the goals set out in the Bologna declaration. Even more specific follow-up communiqués have not required direct coercive intervention by the EU. In fact, Ravinet (2008) argues, countries seem to misinterpret their own commitment to the Bologna process as legally binding European policy when declarations and communiqués are published and acquire a quasi-legal stature. Further, domestic actors often use these documents to legitimise their proposed reforms. Substantive reforms may be legitimated by national, European or international arguments (Gonon 1998), but organisations in HE and VET are stabilised by deeply institutionalised rules, and these

organisational fields must increasingly compete directly for students, funding and status (Powell and Solga 2010).

Skill formation institutions in Europe currently seem to be experiencing considerable and possibly fundamental changes leading to transformation, beyond the incremental changes that occur in routine institutional maintenance. Recent attempts to align highly complex institutionalised skill formation systems with contemporary goals emphasise the forceful diffusion and rising relevance of international educational standards as well as the persistence of established nation-state specific ideas, values and interests. Educational systems have repeatedly had to react to external shocks, such as technological innovation, ongoing legalisation and changes in public awareness of the importance of education and training (Hanson 2001, 654ff.). Nonetheless, it remains an empirical question as to whether these reforms require fundamental change – or not. All developmental trajectories of institutional transformation or persistence are possible.

Both the Bologna and Copenhagen processes have led, and lead, to the cross-national transfer and internationalisation of norms and regulations (see Balzer and Rusconi 2007; Jakobi and Rusconi 2009). Although the Copenhagen process began later and has proceeded more gradually than the Bologna process, Bologna-inspired changes in HE have begun to impact VET systems. The process of ‘blurring boundaries’ has already advanced in more academic (universities, *grandes écoles* in France) and more applied HE (*hogescholen* in the Netherlands) (Witte, van der Wende, and Huisman 2008). Germany also exhibits hybridisation in such organisational forms as vocational academies (*Berufsakademien*) that explicitly combine HE and VET (see below).

### German exceptionalism

The key narrative of Germany’s skill formation system is its maintenance and defence of vocational training at upper-secondary level due to the age-old schism (or divide) between HE and VET (Baethge 2006) but also because VET traditionally – and today – offers an attractive and viable alternative to HE. Germany, therefore, provides a ‘hard case’ to gauge the effects of reforms in European skill formation. The dual system of simultaneous in-firm and school-based vocational training is a point of considerable pride for Germany. Tenacious attachment to the idea of a highly effective dual system continues despite larger firms providing more than their share of training places (see Thelen and Busemeyer 2008) and although it regularly fails to provide sufficient training opportunities for all who wish to train (see Baethge, Solga, and Wieck 2007), forcing an increasingly large proportion of youth into pseudo-training measures without much hope of finding an apprenticeship as they age. In addition, Germany has diversified educational provision in HE, including universities, universities of applied science (*Fachhochschulen*, ‘upgraded’ to *Hochschulen* in 2009 yet still without doctoral programmes) and vocational

academies recently renamed a ‘university of dual studies’. The latter combine higher general education with in-firm training. Furthermore, Germany has long had a class-based and segregated educational system that seriously limits potential candidates from advancing to HE. Together these barriers characterise Germany’s continued exceptionalism in HE and VET, despite international and European isomorphic pressures.

The ‘educational schism’ (Baethge 2006) between VET and HE results in very little mobility of individuals from VET into HE in Germany, despite the Europe-wide goal of ‘recognition of prior learning’ (Hoelscher et al. 2008; Freitag 2010). This persistent limitation of permeability is also a result of the underlying general institutional logic of segregated learning and the resulting stratified educational system structures. Further, a tenaciously class-based ordering of occupations and the defence of the German ‘dual system’ hinder permeability. Simultaneously, the discourse of potentially ‘too many’ academically trained young adults who may be ‘overqualified’ (Sloane 2002) and a ‘glut’ of highly educated people (*Akademikerschwemme*) – continues, though largely unheard of elsewhere, even among countries with far higher tertiary attainment rates (OECD 2009).

Indeed, Baker (2009) argues that, far from being a negative feature, the massive expansion of education has shaped the ‘schooled society’, with work transformed via mass professionalisation to well accommodate those who have HE attainments. In Germany, Mayer (2008) sees steady demand for HE despite (or especially because of) smaller cohorts and shifts in demand for qualifications by the state and firms – towards HE graduates. In Germany’s VET system, Baethge (2006) finds major challenges, such as rising average qualification levels; stronger global competition heightening employment insecurity; growing heterogeneity in skill formation systems that makes school-to-work transitions more difficult; and quick obsolescence of vocational knowledge (Baethge, Solga, and Wieck 2007).

Such analyses indicate a strengthened position of HE, as can be observed worldwide (OECD 2010). However, some claim that contemporary HE dominance is due to its very embrace of vocationalism (Grubb and Lazerson 2004), which reduces the division between academic general and specific vocational training through differentiation and the emphasis on economic benefits of formal education. By contrast, in Germany, if the BA has largely been defined as a ‘vocational’ certificate, in keeping with the ‘vocational principle’ so central to German skill formation and labour markets, it reduces the duration breadth of first-degree study courses. Questions arise from the implementation of German interpretations of foreign BA models, borrowed from countries without much apprenticeship training or in which apprenticeships often suffer low status because they support disadvantaged youth and do not facilitate access to HE.

Thus, in our analysis we pay attention to shifting tensions between organisational forms in the fields of VET and HE, as these are embedded in a

diversity of educational and economic environments that have co-evolved over time. Our analysis of HE participation rates begins with an overview of the segregated educational system and the schism between HE and VET. Accordingly, we then provide a range of indicators in higher *and* vocational education to answer this question. Finally, we examine shifts in the relationship between vocational and HE and explore the implications.

### Germany's segregated educational system

School segregation continues to be understood as legitimate in Germany. This is so despite the 'PISA shock' leading to a plethora of reforms (see Münch 2009), international reports critiquing continuing inequities (Muñoz 2007), and the ratification in 2009 of the International Convention on the Rights of Persons with Disabilities (UN 2006), which – in Article 24 – demands inclusive education. Children continue to be sorted very early (after Grade 4 or 6) into one of the following school types, with further variants in the five eastern federal states (*Bundesländer*): lower-secondary schools (*Hauptschule*); intermediate-secondary schools (*Realschule*); upper-secondary schools (*Gymnasium*); multi-track comprehensive schools (*Gesamtschule*) or multi-track cooperative schools (*Schule mit mehreren Bildungsgängen*) that offer a range of tracks and certificates; or one of ten special school types (*Sonderschule*). The *Hauptschule* ends after Grade 9, with possible continuation through Grade 10, and leads to a certificate called a *Hauptschulabschluss*. The intermediate-secondary school-leaving certificate (*Realschulabschluss* or *Mittlere Reife*) is received after Grade 10. The highest secondary school level (*gymnasiale Oberstufe*) ends after Grade 12 or 13 and leads to an HE entry certificate – either general (*Allgemeine Hochschulreife*) or subject-specific (*Fachgebundene Hochschulreife*)<sup>5</sup> – required to access tertiary education. Earning the entry certificate for universities of applied science (*Fachhochschulreife*)<sup>6</sup> provides access to specific tertiary education mainly offered in universities of applied sciences.

This pervasive organisational segregation in Germany is legitimated by the tenacious ideology of 'innate talent' (Lenhardt 2002; Pfahl and Powell, forthcoming), including the classification of children as having either practical talents or theoretical abilities. This ideology inspires the selection into supposedly homogenous groups, at all educational levels. Children are distributed very early among stratified secondary school types, defined as 'appropriate' for an ascribed intellectual level, and these convey differential educational and social status. This then rigidly predetermines which further educational pathways will be available due to school-leaving certificates of vastly different value. Generally speaking, all these tracks ultimately channel young people into specific positions in the labour market. The permeability between the tracks is relatively low, especially for upward mobility (Baethge, Solga, and Wieck 2007; Autorengruppe Bildungsberichterstattung 2008, 9; 2010, 66).



The VET system in Germany is also differentiated; made up of three sectors: pre-vocational school-based training (*Übergangssystem*), fully qualifying school-based vocational education programmes and (proper) firm-based programmes (i.e. apprenticeship) that join in-firm and school-based education and training. Overall, the general secondary school attainment of students determines entrance into a specific field of vocational training or professional education. Training in vocational schools leads mostly to intermediate-level occupations, largely entered by women, in sectors such as health, social work and media. Especially in the highly competitive – and market driven – dual system, students with a general HE entry certificate (*Allgemeine Hochschulreife*) and an intermediate certificate (*Mittlere Reife*) prevail, whereas school leavers from *Hauptschulen* and *Sonderschulen* are diverted into prevocational programmes. In crafts, agriculture and some domestic jobs, lower-secondary school graduates make up the majority of vocational trainees. In industry, commerce, public service and free professions, trainees are recruited primarily from the intermediate track (*Realschule* or *Gesamtschule*) and increasingly from upper-secondary school (*Gymnasium*). In fact, higher-ranked vocational training opportunities, such as for bank clerks or information technology clerks, now de facto require general HE entry certificates (*Allgemeine Hochschulreife*) to receive an apprenticeship contract (Autorengruppe Bildungsberichterstattung 2008). And an increasing number of *Gymnasium* graduates (with *Abitur*) either complete only vocational training or do so before they embark on a course of study in HE.

In Germany, educational integration has been exceedingly difficult to achieve due to the legitimated selective system and vested interests therein, such as teachers and administrators and their associations, all differentiated by school type. Recent reform failures are exemplified in the persistence of segregated special schooling (Powell 2009) and modest success of comprehensive school reform – *Gesamtschulen* were an addition to, not a replacement, for traditional stratified secondary schooling (Leschinsky and Mayer 1999). Germany maintains among the most segregated school systems in Europe. Hence, as a key barrier to tertiary education expansion in Germany, we must keep in mind that the proportion of all pupils with the *Abitur* – in both general and technical education tracks – was only 45% in 2008, and thus remains much lower than the secondary school-leaving rates in many other OECD countries (Autorengruppe Bildungsberichterstattung 2010, 118). Although mobility from vocational training to HE is formally possible (but not supported in praxis), today only about 1% of students enrolled in HE institutions do not hold the *Abitur*; they are labelled ‘non-traditional students’ (Autorengruppe Bildungsberichterstattung 2010, 118). Therefore, in contemporary reforms relating to skill formation in Germany, the analysis of HE enrolments and reforms demands the consideration of the entire German educational system, because its different levels and pathways and related barriers shape individual behaviour and educational investments as well as firms as both ‘training sites’ and ‘consumers of qualifications’.

## **Trends and indicators in higher and vocational education**

In this section, indicators reveal recent developments in HE, provide answers to our question of *why are HE participation rates in Germany so low*, and underscore the persistent division of VET and HE in Germany.

### ***Proportion of secondary school graduates accessing higher education***

Germany has witnessed both a continuous rise (since reunification) and a record number of young adults leaving secondary schooling eligible to access tertiary education. In 2008, 271,000 school leavers from general education had the certificate necessary to transition on to a general or applied science university, and these young adults were joined by 161,500 vocational school leavers, for a total of 442,100 individuals eligible for tertiary education (KMK 2009). Due to double school-leaving cohorts as the number of years of the highest secondary school type (*Gymnasium*) has been reduced by one year to 12, this trend will even increase in 2011 and 2013 (EFI 2010, 95). Nevertheless, several inequalities are cause for concern. Only three-quarters of those eligible actually begin a course of study, with social groups differing in their propensity to do so (see below). Among students beginning their studies in Germany, those from families with less educational attainment and/or lower socioeconomic status are under-represented. Further, even with a record number of highly qualified secondary school leavers, the proportion enrolled in tertiary education (including technical colleges) is very low – 34% in 2007 – when compared to other developed democracies with strong export-oriented economies, such as Australia (86%), Sweden (73%), the USA (65%), the UK (55%) and Japan (46%) (EFI 2010, 96).<sup>7</sup> Beyond differences in overall participation, there are considerable disparities in the types of HE selected and completed.

### ***Higher education participation by type of institution***

Nearly two million students attended 378 HE institutions in 2006. Students enter either a university, focused more towards a general curriculum and science, or a university of applied sciences, which emphasises more applied fields of study and praxis-based education. To distinguish educational programme levels, the International Standard Classification of Education (ISCED) defines theory-based programmes leading to advanced research and high-skill professions as 5A, with 5B programmes more practical, technical or occupationally specific and shorter (e.g. two-year and three-year courses offered by vocational academies, certain trade and technical schools (*Fachschulen*), and health sector schools (*Fachschulen im Gesundheitsbereich*), see Grubb 2005; Schneider 2008). In Germany, net entry rates into tertiary education in 2006 were: ISCED 5A: 35% (26% in 1995) and ISCED 5B: 13% (15% in 1995) (OECD 2008, 68–9). Nearly 70% or 1,386,784 students study at 123 universities and equivalent institutions, 28.6% or

567,729 students are enrolled in 200 universities of applied sciences (including colleges of administration or *Verwaltungshochschulen*), and 1.6% or 31,593 students attend 55 colleges of art and music (KMK 2008, 182ff.). In addition, 28,525 students study at vocational academies (*Berufsakademien*) (KMK 2008, 182ff.). These colleges of advanced vocational studies combine an apprenticeship with postsecondary-level teaching that represents a newer type of hybrid organisational form, bridging VET and HE (Powell and Solga 2010). However, this relatively new organisational form remains quantitatively marginal and limited to certain federal states (*Bundesländer*), such as Baden-Württemberg, where eight of these types of organisations have joined forces to create dual, praxis-oriented HE for approximately 24,000 students in the *Duale Hochschule Baden-Württemberg* (University of Dual Studies).

The proportion of students beginning their BA studies at a university or a university of applied science in Germany was equal in 2000 – at a very low single-digit percentage. The implementation of Bologna reform goals resulted in a considerable rise in the overall proportion of new tertiary-level entrants in both organisational forms, such that by the summer semester of 2009 full three-quarters of all entrants enrolled in BA programmes (EFI 2010, 54). However, the take-up of BA courses of study in the universities of applied science (reaching 80% by 2008) was much faster than in the traditional universities (reaching just 55% by 2008; Autorengruppe Bildungsberichterstattung 2010, 122). This indicator emphasises that attention must be paid to differences in the pace of reforms by organisational form and in actual adjustments; especially since empirical results on the effects of HE reforms (and on VET) thus far have been preliminary, if not contradictory (Dobischat, Fischell, and Rosendahl 2008, 97). Perhaps not surprisingly, the regional and field of study differences are considerable, with the professions of law and medicine resisting the Bologna reform, but computer science and economics readily embracing the bachelor's degree as an alternative (EFI 2010, 54–5).

However, this indicator does not address the question of more importance to inequality in access to tertiary education. The increase in students at this level has been slower than in other countries, especially in math, engineering, natural science and technology (EFI 2010, 52; see also Solga and Pfahl 2009). Existing structures matter, for example, when comparing France and Germany, the former implements the BA/MA/doctoral-sequence into its already differentiated, increasingly 'vocalised' HE system with less fundamental transformation necessary than in Germany, where universities traditionally awarded (and some disciplines still award) the *Diplom* and doctorate, whereas now even vocationally oriented postsecondary colleges can offer BA/MA degrees (Powell et al. 2009). Not only the status and value of Germany's 'dual system' of VET in the past, but also the professions today continue to resist the new model proposed by Bologna, for example, when engineers maintain their traditional certificates (*Dipl.-Ing.*) or lawyers still

must sequentially complete university studies, pass state examinations and absolve a legal clerkship.

Ironically, when considering the elite liberal arts colleges in the Anglophone world that served as a more or less explicit model, most German universities have interpreted and implemented BA courses of study to be vocationally qualifying, not broad general education with later specialisation. Furthermore, idealisation of the old *Diplom* degrees and the longer courses of study that led to them hinder broad recognition of the BA as a *fully* qualifying degree – in contrast to apprenticeships completed in the VET system that already are. In most parts of Germany, the relationship between VET and HE is one that remains highly impermeable and static.

In addition, educational mobility from VET to HE, while increasingly possible *legally*, has yet to include the recognition of prior learning on a large scale. Systematic and reliable acknowledgement of both formal and informal, theoretical and practical, and general and specific prior learning is still largely absent within Germany's HE institutions (see Buhr et al. 2008; Freitag 2010).

### ***Proportion of those eligible for HE who instead choose VET***

In many countries, particularly those with highly differentiated HE systems paired with on-the-job training, such as the USA, nearly all young adults with aspirations for higher-skill jobs select learning opportunities in HE, not in VET. However, much of what qualifies as HE, such as the two-year associate's degree offered in US community colleges, would be more equivalent to non-tertiary VET preparation offered in Austria, Germany and Switzerland. In Germany, in 2008, still about one-fifth of a university graduate cohort held two degrees – by obtaining first a VET and then a university degree (BIBB 2010, 59; Autorengruppe Bildungsberichterstattung 2010, 120), which emphasises the continued attractiveness of VET in Germany. In addition, about one-third of the 2008 school leavers holding a university entrance qualification did not plan to participate (ever) in an HE programme of study, instead interested only in enrolment in a VET programme (BIBB 2009, 141).

### ***Family social background disparities in VET/HE enrolment***

This attractiveness of VET in Germany is particularly visible for working-class children – even when they hold a university entrance school degree (the *Abitur*). However, most of them do not. Analysing data from school-leaver surveys conducted by the German Higher Education System Institute (HIS) from 1983 to 1999, Reimer and Pollak (2010) show that even though the proportion of those eligible for tertiary education doubled, enrolment rates remained stable among all postsecondary pathways. The 1964 birth cohort survey of the West German Life History Study well illustrates the tremendous

social background selectivity of the German educational system. Contrasting lower and higher educational family background status groups, of 100 children attending primary schooling, 21 from less-educated versus 63 from highly-educated families enter the top upper-secondary school form (*Gymnasium*) directly, with some entering later, dropping out, or getting a second chance; eventually 19 from less-educated versus 64 from highly educated families attain the *Abitur*; at tertiary level, whereas only seven from less-educated families enter university directly, 32 from more highly educated families do, with 31 finally graduating, but only five from less-educated families doing so (Hillmert and Jacob 2010, 72). Thus, at each of the major transitions, the proportion of children and youth who succeed in entering the most prestigious and rigorous educational pathway is radically reduced; even more so for those whose parents enjoyed fewer educational advantages.

A Key explanation for the differential enrolment in tertiary education remains that ‘the availability of several less costly and less risky variants of non-tertiary VET (attractive apprenticeships and others) causes working-class children to increasingly avoid the *Fachhochschule* and even more the university’ (Mayer, Müller, and Pollak 2007, 264). At both secondary and postsecondary levels, the VET system, as it meets the expectations and aspirations of working-class families, ‘diverts’ them from seemingly more ambitious, expensive, and riskier school types and courses of study. However, such qualifications, in many fields, offer higher rewards. And, in fact, once access to tertiary education is secured, the costs of tuition remain rather modest in international comparison. Not all of Germany’s 16 *Bundesländer* even charge tuition fees. Thus, the decision to pursue VET over HE has much to do with the ideational and normative foundations of vocations (*Berufe*) and the vocational order in German culture as well as with individuals’ and families’ risk aversion – given an attractive ‘alternative’ of becoming a (quite well paid) ‘skilled worker’ (*Facharbeiter*). This stands in contrast to the Anglophone countries, where we observe the opposite – an overvaluation of HE and a lack of intermediate-level apprenticeships – despite the limited labour market benefits of participating in but not completing or attending less prestigious colleges whose credentials lack positive signalling power.

### ***Challenge from below: ‘Dual Studies’***

Thus, one of the major reasons for Germany’s relatively low proportion in tertiary education is the vaunted dual system, which offers an attractive alternative for a large minority of each cohort. Bologna-inspired BA programmes of three years’ duration (similar to most VET programmes), may well increase direct competition between the sectors. Indeed, despite the shift to the BA/MA courses of study throughout Europe, a number of newer, often hybrid organisational forms are increasingly relevant. Tertiary short-cycle courses – understood as short-duration vocational or professional education

taken up after secondary schooling – are gaining importance (Grubb 2005). In many countries, linkages between postsecondary, tertiary short-cycle and university education are being strengthened (see Kirsch, Beernaert, and Nørgaard 2003). In Germany, ‘dual studies’ (*duales Studium*) that combine in-firm training and higher-level general education are becoming more popular in regions where they exist. Joining two types of learning and often offering double qualifications, currently 700 courses of study at vocational academies (*Berufsakademien*), *Fachhochschulen*, or universities register nearly 50,000 students who also receive training in approximately 12,000 firms (Busse 2009; see also BLK 1999). Such organisations respond to new opportunity structures in hierarchical, functionally differentiated systems. They successfully capitalise on the influence and status of Germany’s combination of firm-based and school-based training (Mayer 2001). Such hybrid, newer courses of study and organisations have begun to bridge the gaps between sectors as they offer flexible learning pathways and part-time in-firm education. Yet the legal status and labour market value of such qualifications awaits clarification and will be affected by allocation into the national qualification frameworks currently being debated among the social partners (trade unions and employers) and other stakeholders in Germany (see Powell and Trampusch, forthcoming).

### ***Outcomes: certificates and wages in labour markets***

Finally, we turn to the demand side of labour markets to analyse what consequences differing pathways have in rewards. Countries whose educational systems have large vocational proportions exhibit stronger education effects on work outcomes, using indicators of occupational status and prestige or social class (Andersen and van de Werfhorst 2010, 337). It is useful to connect the internationally comparative data on propensity to study at the higher levels (ISCED 5A and 6) with the relative proportion of those with such high general education certificates in the labour market. Within Europe, Germany’s proportion is below the mean, as only 16.3% of all employees had such a certificate, with countries such as France, Switzerland, Sweden, the UK, the Netherlands and Norway ahead (EFI 2010, 100). On the other hand, overall Germany also exhibits a lower proportion of less-qualified workers, which also reflects high-quality training opportunities made available in the VET sector. Among a group of 21 European and North American countries, Germany exhibited the *lowest* net wage premium paid to HE graduates, measured in the percentage point increase in earnings relative to upper-secondary degree holders (see OECD 2008, Figure 2.1).<sup>8</sup>

This wage indicator underscores that the relatively modest additional rewards for university study in comparison with other options in the skill formation system encourage different individual preferences than in countries where these attractive alternatives do not exist. Whereas VET retains its

prestige in Germany, given the high level of such apprenticeships as bank and IT clerks, in many countries VET opportunities are solely offered on lower levels; options mainly for disadvantaged youth.

However, the current crisis of Germany's dual system of apprenticeship training, resulting from too few training opportunities being provided for all those who want them, will certainly affect these choices – and may increase HE wage advantages. If the pecuniary rewards for VET graduates continue to roughly match those for HE in many fields – especially if the BA is not recognised as a higher, vocationally qualifying degree and thus leads to lower wages paid than to holders of the traditional diplomas in labour markets – we would expect that this major factor driving HE enrolment increases in other countries will not obtain in Germany. The effects of the transition to sequential BA/MA degrees and newer 'dual studies' at the nexus between VET and HE for labour market outcomes remain unclear. Yet regardless whether the 'better' students would enrol in HE if permeability via recognition of prior vocational learning were enhanced, this would be insufficient to solve the larger demographic problems that a whole range of 'academic' occupations and professions face: too few applicants and entrants. So far, the global challenges of shifting labour markets have not led to transformation of the relationship between VET and HE, in part because Germany's industrial strength and export success continues; accompanied by the vested interests of the social partners in VET in Germany (Culpepper and Thelen 2008).

## Conclusions

Clearly, internationalisation and Europeanisation processes affect skill formation systems throughout Europe, but to different extents. Even in Germany, both organisational fields, HE and VET, must react to global pressures as well as specific European standardisation attempts that aim to 'harmonise' skill formation; specifically, the Bologna and Copenhagen processes. However, 'German exceptionalism' – particularly the persistent segregation and durable division or schisma between HE and VET – poses barriers to the HE expansion witnessed in other developed countries. Current reforms aim to facilitate the adoption of good practice, but the transformation, whether hybridisation or unification, of these separate organisational fields seems particularly challenging, despite the rhetoric and ambitious planning by education ministers. The mythical quality of vocationalism (*Beruflichkeit*) continues to exert much fascination, and the vocational order exerts strong ideational, normative and regulative power. In Germany, therefore, the separate organisational fields involved in skill formation are complementary, even as they must increasingly compete, especially at the intersection of educational systems and labour markets.

We have argued that analyses of the dynamics of institutionalisation must also consider the VET/HE nexus to address the impact of exogenous and

endogenous pressures: the organisational fields of Germany's skill formation system must be analysed together if the relevance of Europe-wide standards and policies, and more or less persistent national structures and pathways, are to be adequately understood (see also Powell and Solga 2010). Only then can we explain that HE participation rates in Germany remain so low because of the ideological and normative commitments to vocationalism and the resulting ordering of occupations, due to the hierarchical structures of secondary schooling, and because of the durable division of skill formation systems into HE and VET sectors, which hinders permeability and thus limits individual mobility. Despite its own shortcomings and challenges, VET continues to exert considerable attraction, as it functions as a prime source of skill formation upon which the German economy and wage structure depend. The successful VET system will continue to pose a barrier to HE expansion – even as it remains a model many countries pursue in hopes of producing high wage, skilled manufacturing jobs, such as those made in Germany.

If Germany bows to international isomorphic pressure and thus believes it must increase its proportion of young adults educated in general tertiary courses of study, to become more like the rest of the world, it cannot attain that goal solely 'from above' by opening up HE to all those eligible. Rather, addressing the problem 'from below', Germany must also ensure that youth do not get lost in stigmatising lower-secondary schools forms and thus increasingly in disqualifying pre-vocational educational programmes. As the Bologna and Copenhagen processes continue to standardise and set benchmarks in skill formation, one of the countries most challenged to meet them will be a key initiator of these processes at the heart of Europe. The development of hybrid organisations and pathways, such as dual studies, is one response to reach that goal. Yet to markedly increase the HE participation rate to emulate the global vision of the 'knowledge' society, Germany would have to not only increase support for and capacity in HE, but also shift the institutional logic of its educational system from one of segregation to one of permeability and mobility between secondary school forms and between VET and HE.

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### Notes

1. Whether or not one views HE expansion as desirable, the global norm is to increase tertiary participation rates. This goal challenges Germany, especially given *Länder*



- control over education, which leads to significant regional disparities. Further, due to other countries' lack of a well-developed VET systems and 'vocational order', such qualifications have often been devalued in international comparisons that classify HE degrees higher than VET certificates in qualification frameworks.
2. While Austria and Switzerland have relatively similar secondary schooling systems to Germany and also offer high-level VET qualifications (e.g. *Meister*) that can compete with HE certificates in income and status, the former have instituted a number of hybrid organisational forms (e.g. higher vocational schools) and certificates (e.g. *Berufsmatura*) – that span the VET/HE-nexus with flexible pathways, which are less well developed in Germany (Graf, Lassnigg, and Powell forthcoming).
  3. In reunified Germany after 1990, the Western model was imposed on Eastern Germany's education and science system, which further countered the diffusion of the global consensus undergirding HE expansion.
  4. *Berufe* are vocations or professions to which an individual feels a calling and which reflect social status within stratified labour markets. *Beruflichkeit* means that, in congruence with education and educational certificates, employment selection processes, labour markets and rewards (prestige, income) are organised around the principle of traditional, well defined and official *Berufe*.
  5. The *Allgemeine Hochschulreife* requires certification of knowledge of a second foreign language, whereas the *fachgebundene Hochschulreife* does not. Thus, the latter certificate allows access only to certain subjects at universities, but to all subjects at universities of applied sciences.
  6. The *Fachhochschulreife* is the second highest general school-leaving certificate, which can be attained at various upper-secondary schools.
  7. Germany will experience a serious decrease in birth cohort size, a trend already evident in Eastern Germany. In 1991, about 830,000 children were born, but by 2008 only 638,000 were – a reduction of about 18% (Autorengruppe Bildungsberichterstattung 2010, 5).
  8. However, Germany exhibits a huge 'employability premium' – much larger than in many other countries: University graduates have a much lower unemployment rate than persons holding a VET degree.

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