

# **Non-standard employment and systems of skill formation in European countries**

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## **Introduction and theoretical framework**

The guiding research question of the volume is “why does the share of flexible and/or cheap employment differ across occupations?” (Eichhorst/Marx in this volume) The editors propose two factors that might explain the variety of non-standard employment across occupations: replaceability of workers (as determined by labor supply and demand as well as the level and type of skills) and flexibility of labor market institutions, which in turn depends on the power of unions and the specific institutional set-up of the industrial relations systems.

This chapter elaborates and refines these propositions by exploring how the institutional set-up of a country’s industrial relations and vocational training system shapes the two dimensions of replaceability and flexibility. Whereas the country chapters are concerned with identifying occupation-specific characteristics that are linked to these two dimensions, we argue that the institutional context will influence the relative importance of employment in different occupations associated with non-standard employment. In other words, we argue that skill formation regimes play a crucial role in defining access to secure and high-skilled employment.

Starting with the dimension of replaceability and largely following in the footsteps of the Varieties of Capitalism (VoC) framework (Hall/Soskice 2001), it can be argued that the type and level of skills (high – low, academic – vocational) depends on the existence of a well-established vocational education and training (VET) system. Furthermore, the actual portability of skills is dependent both on the content of training, i.e. whether employers are willing to invest in the development of broadly applicable, “polyvalent” skills (Streeck 1989) and on the authoritative certification of vocational skills, usually in the form of nationally recognized training profiles or training occupations (Busemeyer 2009; Streeck 2012). When workers are hard to replace, either because they have a very specific skill set or because there are no authoritative mechanisms of certification in place, the likelihood of non-precarious employment increases (e.g. the case of lifetime employment in Japan). Vice versa, workers with generic, low-level skills are easier to replace, i.e. a skill system that produces a large number of low-skilled workers without any particular specialization is likely to promote the spread of non-standard, precarious employment (the United Kingdom might be an example).

The impact of skill certification on replaceability is ambiguous. Skill certification makes it easier for employers to replace skilled workers who leave the firm, but it also enhances the potential mobility of workers. Certification is thus a source of power for labor since employees can put more pressure on their employers if they know that their skills can be transferred to other jobs (Streeck 1994). Although these effects are hard to quantify, the second effect is likely the stronger one. In other words: Skill systems with

effective and authoritative mechanisms of certification of vocational skills might make it easier to replace skilled employees in the short term; in the long term, however, certification of skills bolsters the position of labor and should contribute to a lower share of atypical employment.

With regard to flexibility, the expectations are more straightforward. Compared to liberal skill regimes, unions have a greater influence on the hiring and firing decisions on the firm level as well as on the governance of education and training regimes in statist or collective skill regimes (Busemeyer/Trampusch 2012). Collective labor market and training institutions deliberately delimit the autonomy of employers in order to cater to collective concerns such as an equal distribution of income and labor market risk. Thus, we would expect collective and statist skill formation regimes, i.e. Continental European and Scandinavian countries, to be associated with a lower share of precarious employment.

So far, our argument has developed a fairly conventional hypothesis: Higher levels of collectivism in the industrial relations and training regime should be associated with a lower overall risk of precarious employment. However, the rise of the globalized service and knowledge economy, the erosion of corporatist associations and institutions, the liberalization of labor market policies and the onset of fiscal austerity and retrenchment measures have fundamentally altered the socio-economic context of skill formation regimes. Empirical analysis has shown that in this new context, institutions that served collective purposes in the past can either be deliberately turned into instruments of stratification protecting the interests of labor market insiders (institutional conversion, Streeck/Thelen 2005) or be left to “drift” by policy-makers who fail to adapt institutions to the changing environment (Hacker 2004; Streeck/Thelen 2005). The latter seems to be the driving force behind the process of labor market dualization (Eichhorst/Marx 2012; Emmenegger et al. 2012; Palier/Thelen 2010). From the perspective of the dualization literature, institutions that delimited flexibility and replaceability in order to maintain high levels of employment quality in the past can now erect new barriers between labor market insiders and outsiders on the labor market.

The question that the present chapter addresses is whether skill formation regimes in particular have contributed to the process of dualization in advanced political economies or to what extent they may serve as a policy instrument to counter the trend towards dualization. In the following section, we present some data on the relative performance of skill formation regimes with regard to labor market stratification. The subsequent section looks at recent developments in particular country cases that represent the variety of skill formation regimes in Western Europe: Germany, the United Kingdom and Denmark. The final section concludes.

## Skill formation regimes and labor market stratification

Table 1: Skill formation regimes in advanced industrial democracies.

Public commitment to vocational training	High	Statist skill formation system (SW, FR)	Collective skill formation system (GE, . . .)
	Low	Liberal skill formation system (US, IR)	Segmentalist skill formation system (JAP)
		<i>Low</i>	<i>High</i>
<i>Involvement of firms in initial vocational training</i>			

Source: Busemeyer/Trampusch 2012: 12.

Building on an earlier literature (Allmendinger 1989; Blossfeld 1992; Crouch et al. 1999; Lynch 1994), Busemeyer and Trampusch (2012) develop a typology of skill formation regimes (see also Busemeyer 2009 and Culpepper/Thelen 2008) based on two dimensions: The first is public commitment to the promotion of vocational education and training (VET). Some countries invest significantly in either firm- or school-based VET and establish authoritative mechanisms for the certification of vocational skills. In contrast, in other cases, policy-makers privilege the expansion of academic education over VET. The second dimension is firm involvement in initial VET, i.e. the extent to which employers are willing to invest in the formation of broad occupational skills that are, in principle, transferable to other jobs.

Combining these two dimensions yields four ideal-typical regimes. The statist skill formation regime, e.g. Sweden or France, exhibits high levels of public commitment to VET, but the involvement of employers in skill formation is very limited. School-based VET is dominant over firm-based alternatives. In liberal skill formation regimes (e.g. the United Kingdom or the US), both public commitment to and firm involvement in VET are low, because the system is geared towards the promotion of academic skills. This is quite similar in segmentalist skill regimes such as Japan with the important difference that in the case of Japan, employers are willing to invest significantly in VET as long as this is tied to firm-specific internal labor markets. Finally, collective skill formation regimes such as Germany, Austria or Switzerland combine significant levels of public commitment to VET with high levels of employer involvement. At the core of the collective skill formation regime lies the dual model of apprenticeship training, combining practical training at the workplace with theoretical education in vocational schools.

What is the impact of skill formation institutions on labor market stratification? A core finding in the relevant literature is that dual training systems are associated with low levels of youth unemployment, because they facilitate the transition from training to employment after the end of the training period (Allmendinger 1989; Breen 2005; Busemeyer/Iversen 2012; Gangl 2003; Wolbers 2007). This finding is confirmed in a simple scatter plot (see Figure 1). Countries with well-developed firm-based training systems such as Germany and Denmark exhibit low levels of youth unemployment. Vice versa, when the share of students in apprenticeship-type programs is low, the level of youth unemployment tends to be higher (e.g. Spain). By contrast, when we look at the relationship between youth unemployment and the share of students in VET overall (which combines students in apprenticeships and school-based programs), the association is considerably weaker (Figure 2). This might be interpreted to indicate that

school-based VET is less effective in lowering youth unemployment than firm-based training (which is in line with the findings of the literature mentioned above).

Conversely there *is* a rather strong negative association between the share of students in VET and the incidence of low pay on the labor market – a commonly used indicator of atypical employment (see Figure 3) – although this association vanishes when one considers only apprenticeship-type training (not shown here for reasons of space). This implies that the provision of VET (either in school-based and firm-based settings) can serve an important insurance function against the risk of low-pay employment, providing sufficient training places are made available. In countries where the skill formation regime privileges academic over vocational education (e.g. Canada, but also Ireland, the UK and Korea), the risk of ending up in the low-wage sector is considerably higher. These findings can be replicated with more sophisticated statistical estimation procedures (Busemeyer/Iversen 2012). In sum, we find that firm-based VET is more effective in lowering youth unemployment, but school-based VET (or VET in general) is more effective in mitigating labor market stratification in terms of wage inequality.

There are also interesting associations between skill formation institutions and the level of employment protection. Estevez-Abe, Iversen and Soskice (2001) argue that high levels of employment protection should increase the willingness of workers to invest in (firm-specific) vocational skills. Indeed, we do find a slightly positive association between the share of students in VET and the overall level of employment protection (Figure 4). However, the association disappears when we look at the share of apprenticeships only, although it should have become stronger.<sup>1</sup> Figure 5 reveals an even more interesting pattern: Here, we find a *negative* association between the share of apprenticeships and the level of employment protection for temporary workers, i.e. countries with well-developed firm-centered training regimes exhibit low levels of employment protection for temporary workers (though not for regular workers).

These findings resonate well with scholarship in labor market sociology (Breen 2005; Wolbers 2007), which argues that high levels of youth unemployment are caused either by high levels of employment protection (which makes it harder for young people to get access to employment) and/or underdeveloped training systems. They also suggest, however, that those without any certified training may wind up in atypical jobs with far lower protections than regular employment. Thus, in a case like Germany, the well-established training system eases transitions and helps to neutralize the negative effects of employment protection for those youth who receive training, but may increase the probability of precarious employment for youth/adults without certified skills. In other cases, primarily Southern Europe, high level of employment protection for insiders and an underdeveloped VET system lead to extremely high levels of youth unemployment. In the liberal skill regime, the low levels of employment protection compensate for the lack of an effective training system. It may be easier for young people to get a job in the UK than in Spain, but they still face a relatively high risk of low pay (Figure 3 and see below).

In sum, this very cursory overview shows that skill formation regimes do matter with regard to labor market stratification. It also reviews potential trade-offs. Firm-based training may be more effective in lowering youth unemployment, but school-based VET

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<sup>1</sup> Although this could be a function of the lower number of cases.

systems seem to be associated with lower levels of general labor market stratification in terms of wage inequality (see also Busemeyer/Iversen 2012).

Figure 1: Dual training and youth unemployment, 2008.

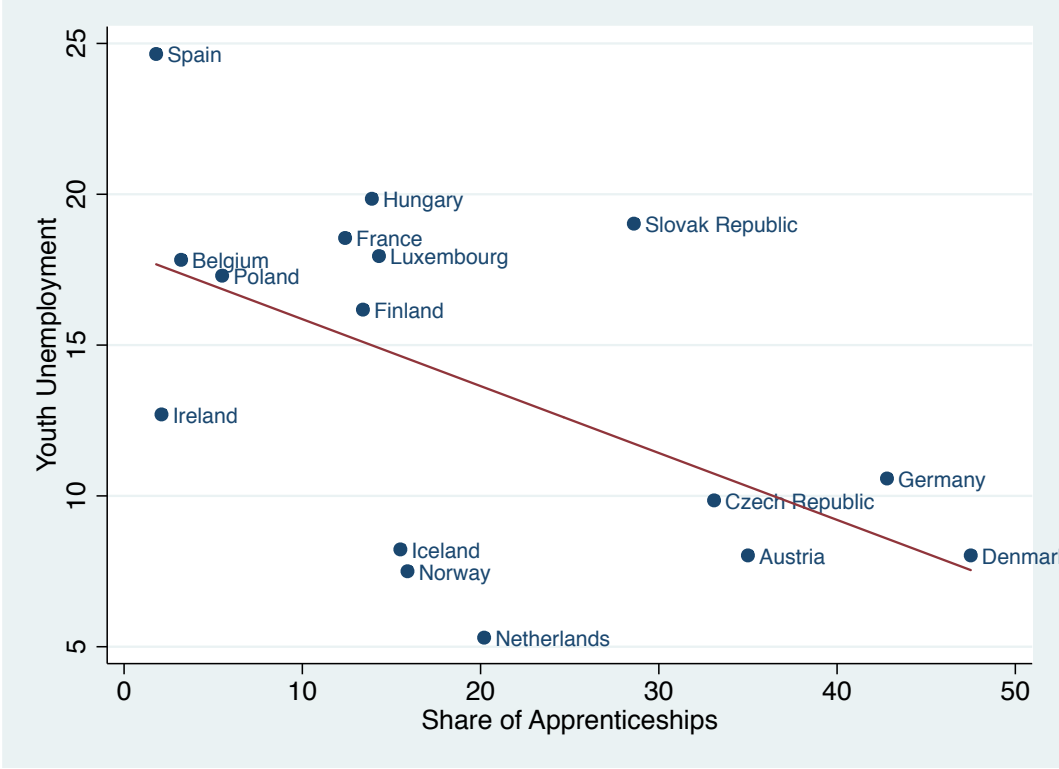
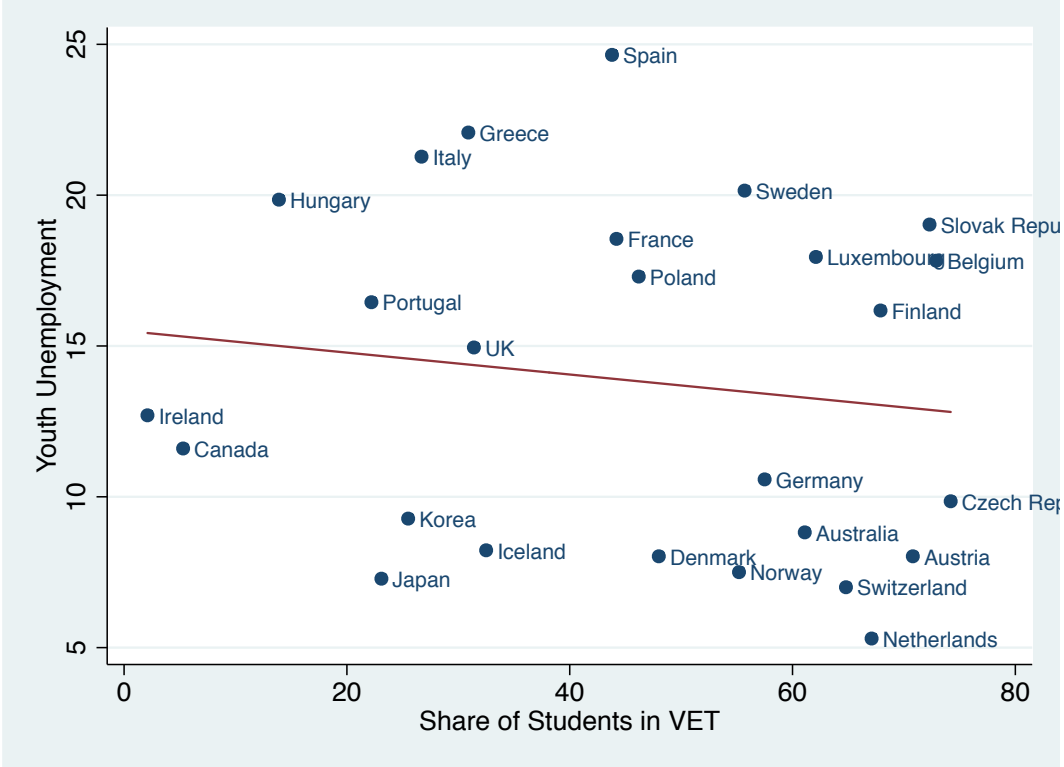
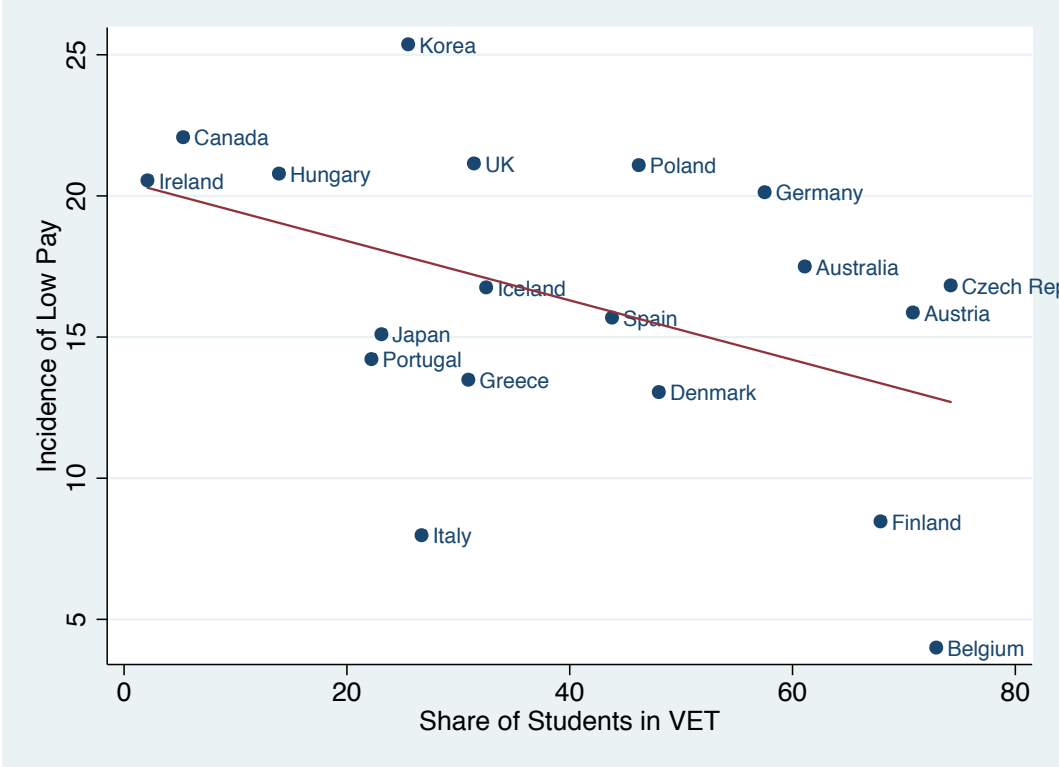


Figure 2: Share of students in VET and youth unemployment, 2008.



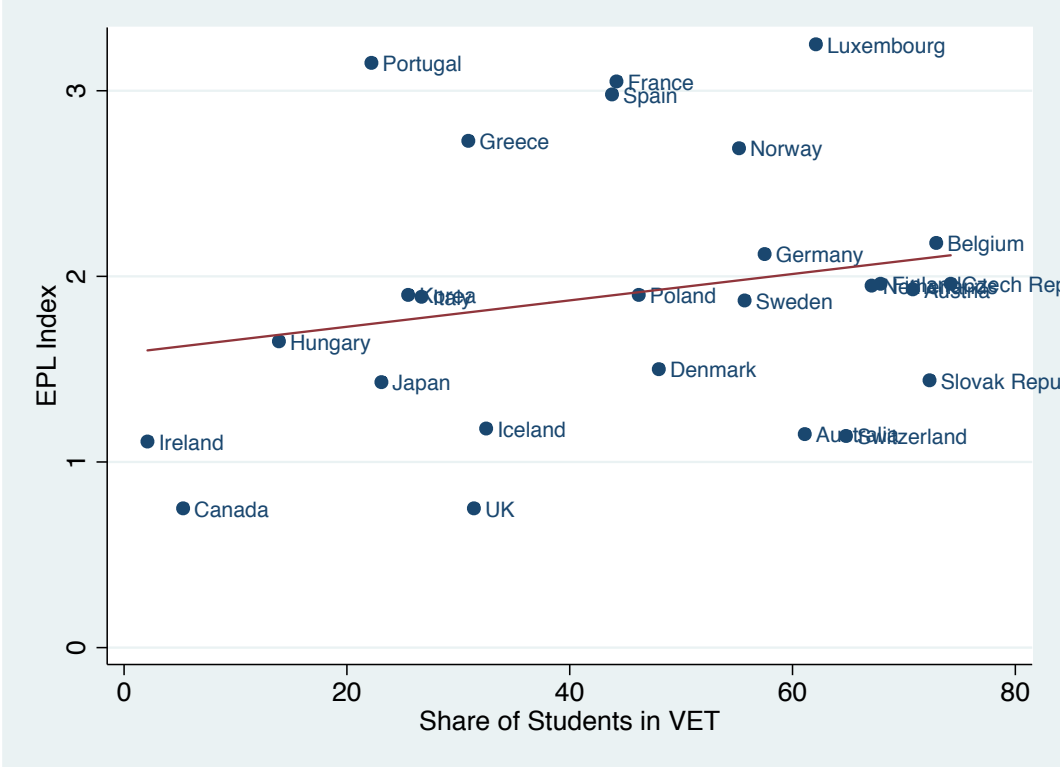
Sources: OECD Education Statistics Database, OECD.stats.

Figure 3: Share of students in VET and incidence of low pay, 2008.



Sources: OECD Education Statistics Database, OECD.stats.

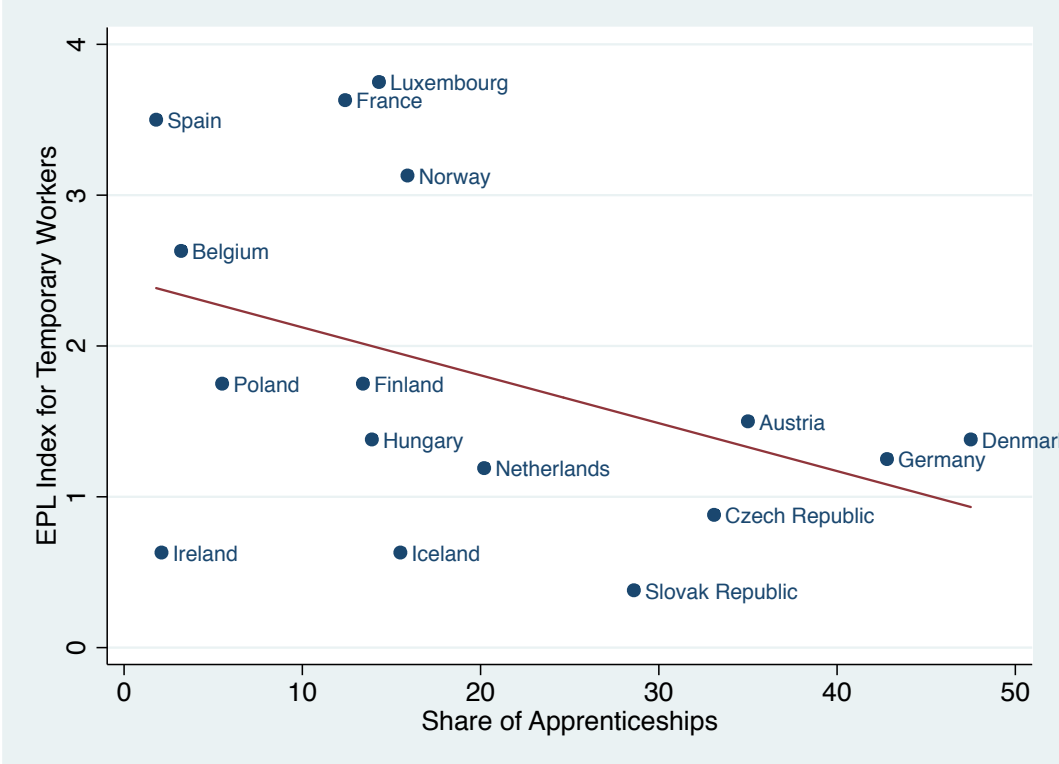
Figure 4: Share of students in VET and EPL index, 2008.



Sources: OECD Education Statistics Database, OECD.stats.



Figure 5: Share of apprenticeships and EPL index for temporary workers, 2008.



Sources: OECD Education Statistics Database, OECD.stats.

## Case studies

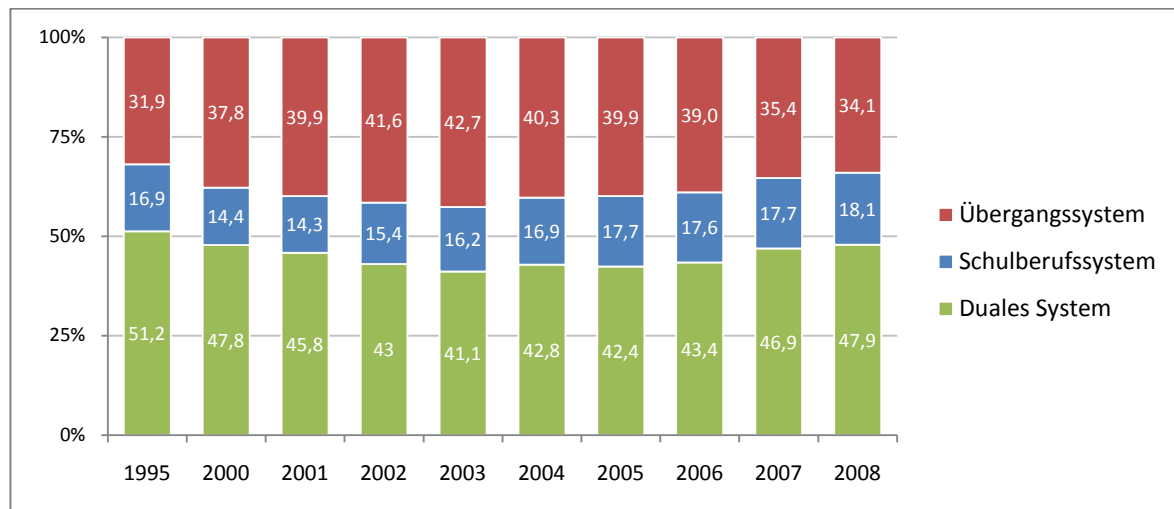
### Germany

The German vocational training system has long been admired by international observers because of its contribution to maintaining low levels of youth unemployment as well as to the economic competitiveness of German firms in product markets for high-quality manufacturing goods (see e.g. Culpepper 1999; Crouch et al. 1999; Finegold/Soskice 1988). On both accounts, the system has come under pressure recently.

First, recent years have witnessed the significant expansion of the so-called “transition system” (Baethge et al. 2007). Contrary to what the name suggests, this segment of the VET system is not a rationally planned system, but an uncoordinated set of a myriad of policy instruments and measures, whose only commonality is that they do *not* lead to certified vocational skills. The different measures fall roughly into two groups: One type is school-based (such as the *Berufsvorbereitungsjahr (BVJ)* or the *Berufsgrundbildungsjahr (BGJ)*), whereas the other type is administered by the Federal Employment Agency and thus closer to the labor market.

How large is the transition system? Figure 6 displays the distribution of students/apprentices across the different sectors of the VET system. In the 1980s, the share of young people in the transition system was much lower than 30 percent (Baethge et al. 2007; Thelen/Bussemeyer 2012). As can be seen the share of young people in the transition system increased from about 32 percent in 1995 to almost 43 percent in 2003. Since 2003, the share of young people in the transition system has decreased to 34 percent in 2008 (and about 30 percent in 2011 as recent figures shows, BMBF 2012: 12). As a consequence, the public debate in Germany is now shifting. After the dotcom bubble burst, policy-makers were worried about increasing the number of training places. In recent years, however, the public debate centers more and more on the topic of a lack of skilled workers (*Fachkräftemangel*). Even though firms, in particular in the craft sectors, are increasingly worried about the lack of suitable candidates to fill apprenticeship places, the figures show that even in good times, there are still about 30 percent of young people who end up in the transition system, although the large bulk of them would have preferred to start a regular training program.

Figure 6: The distribution of students/apprentices across the different sectors of the VET system.



Source: Autorengruppe BIBB/Bertelsmannstiftung 2011: 7.

Recent studies of how young people fare after they have left the transition system reveals an interesting pattern (Beicht 2009): On the one hand, a majority of young people manage to get access to regular training after they left the transition system. Also, a lot of them express a positive opinion about the various measures (ibid.: 8). This suggests that the transition system *does* help a significant share of young people to improve their skill set and to get access to regular training. On the other hand, the same study finds that 31 percent of those with initial low- to medium-level skills do not enter any kind of regular training or standard employment relationship even several years after they leave the transition system (ibid.: 12). This finding resonates well with scholarship in labor market sociology that identifies a core of low-skilled youths, often with a migration background, who are shut out of the education system and the labor market (Solga 2005). Adding to this, the OECD provides data on the risk of unemployment conditional on educational qualifications. Among the group of Western OECD countries, Germany stands out as a case where the risk of unemployment is much more closely tied to educational status (OECD 2011: 131-132). Thus, the education system plays a particularly important role in shaping patterns of labor market stratification in later life.

Figures 7, 8 and 9 situate Germany in the context of the two other countries examined in this chapter with respect to three outcomes of particular interest, namely youth unemployment, long-term youth unemployment, and the so-called NEET rate (proportion of youth not in employment, education or training). While Germany performs well in terms of youth unemployment, the number of youth out of jobs rose significantly in the early 2000s (figure 7). Some of these youth were picked up in the transition system as seen in figure 6, but as figure 8 shows, very significant numbers of German youth through the 2000s were not in employment, education or training – around 10%. In fact for most of the decade (almost double the Danish rate though the two countries converged on this measure in the wake of the financial crisis). Finally, figure 9 shows that Germany performed very poorly vis-a-vis both Denmark and the UK in terms of long term unemployment among youth, providing further support for the

argument that those blocked out of training (or lost in the transition system) face especially dim employment prospects.

Figure 7: Youth unemployment, 1984-2011.

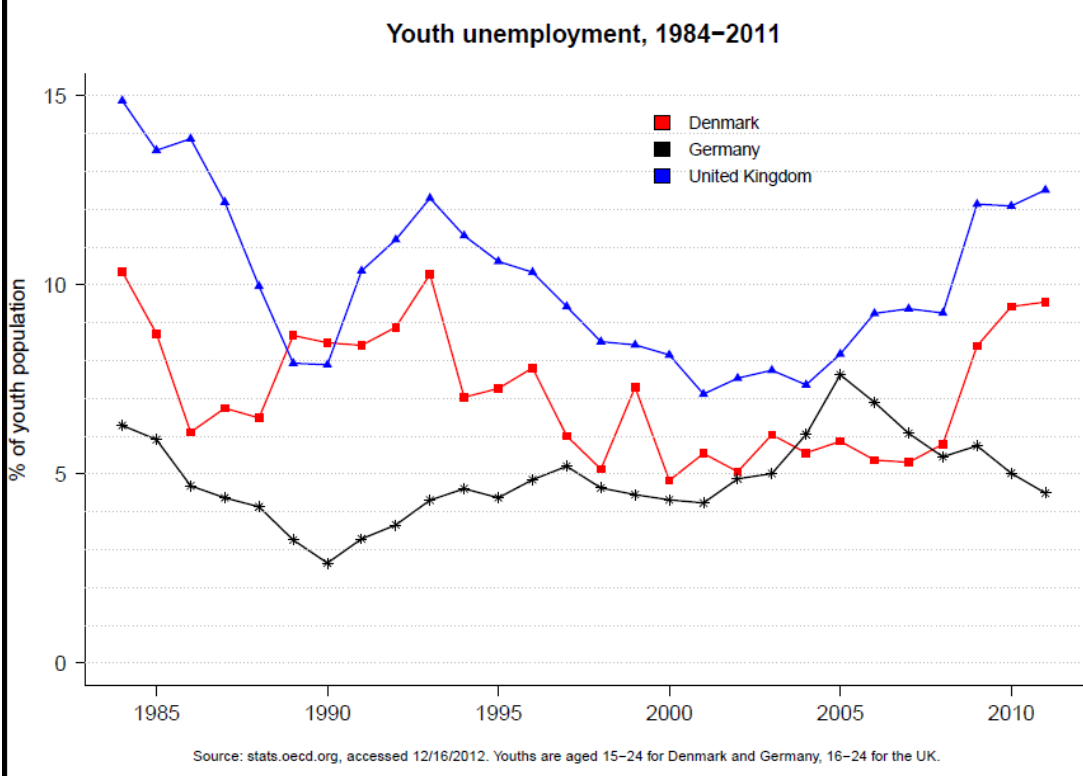


Figure 8: NEET rate, 1997-2010.

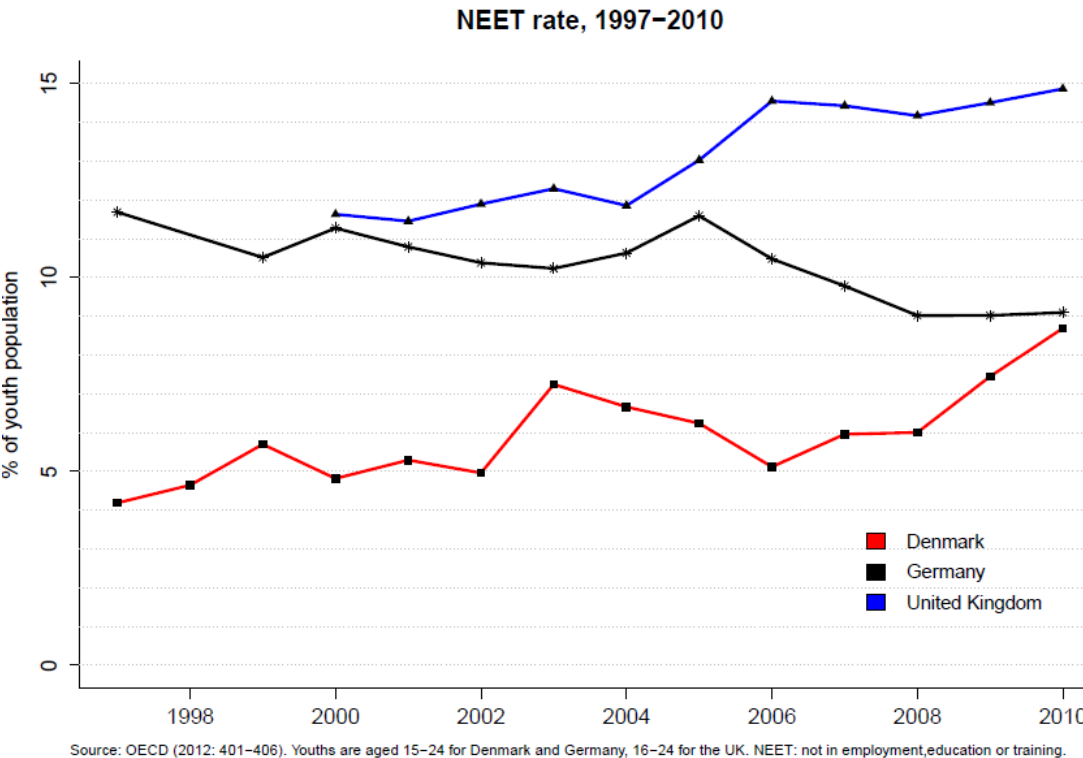
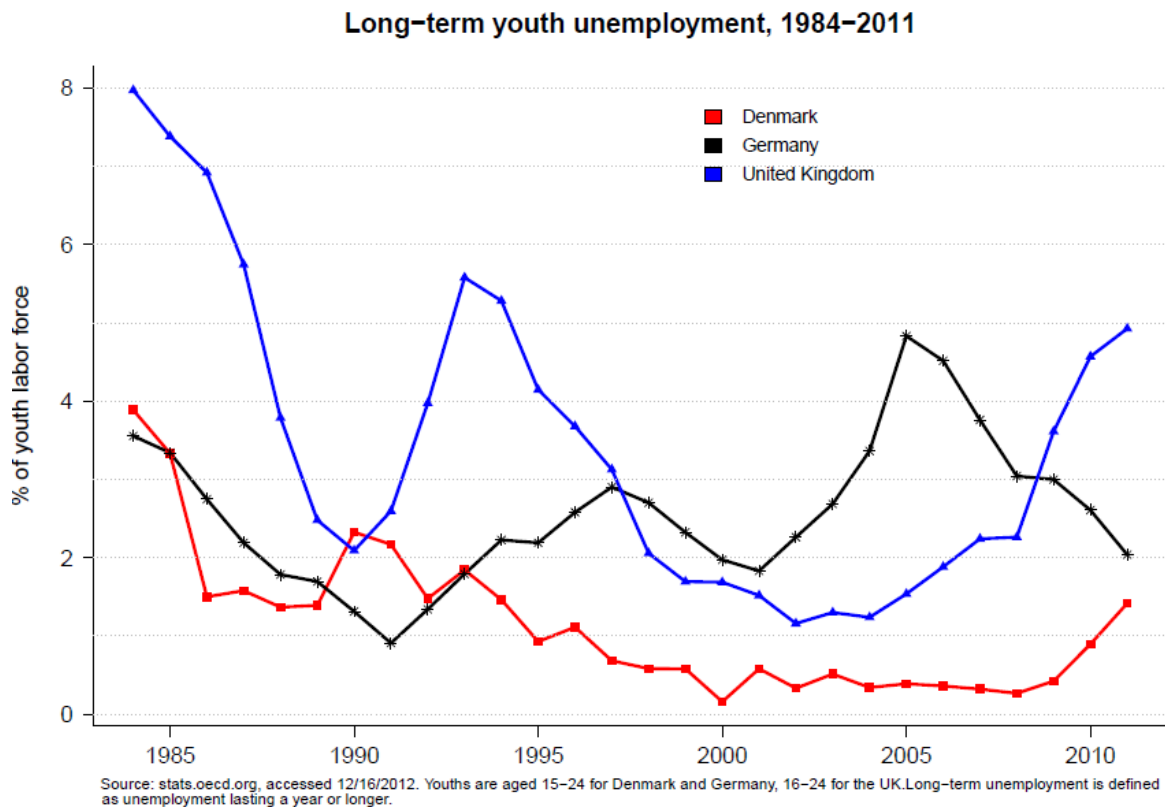


Figure 9: Long-term youth unemployment, 1984-2011.



In sum, compared to former times, access to apprenticeship training has become more stratified and rationed in Germany. The official youth unemployment rate remains low, but there is significant youth unemployment and precarious training hidden in the waiting loops of the transition system, which continues to attract a significant share of young people in VET even when labor market conditions are favorable.

The second weakness of the German skill formation system that is critically discussed in the literature is its strong connection to the supposedly outdated industrial economy, i.e. manufacturing and crafts (Anderson/Hassel 2007; Baethge/Baethge-Kinsky 2003; Culpepper/Thelen 2008; Kern/Sabel 1994). Critics argue that the occupational principle, which is central to the German skill formation regime, is too inflexible for the new socio-economic environment of the service and knowledge economy (Kern/Sabel 1994; Herrigel/Sabel 1999). Instead of teaching young adults the specific skill set for a particular occupation, VET in the service economy should be more focused on theoretical and social skills so that employees are themselves able and motivated to top up their initial general training with additional training in continuous education. What is more, skill demands in the service economy are more polarized than before: On the one hand, there is a higher demand for simple services (i.e. catering, cleaning, hairdressing, etc.). On the other hand, there is also increased demand for high-level services such as consulting. As the German training system is particularly strong in generating intermediate level skills, there is a twofold risk: Dual training programs in the service economy will either be too demanding for simple services and therefore be replaced by regular low-skilled (and often atypical) employment or they will not be demanding enough for the high-end services. The Bologna process, which has triggered a series of

deep reforms in the German higher education system over the last decade, adds a further challenge, because high-level apprenticeships in the IT and consulting occupations now compete directly with three-year BA programs at the university level.

There is no doubt that the rise of the service and knowledge economy poses a formidable challenge for the German training system. However, there is also considerable evidence that the system has begun to adapt to these changes (Bosch 2010; Hartung/Schöngen 2007; Walden 2007). Primary service occupations such as hairdresser, shop clerk, waiter or office clerk had long been established and recognized as training occupations. In the 1990s, the social partners created a range of new occupations in the emerging service sectors. The most well-known examples are new occupational profiles in the IT sector, which were created in the late 1990s. Other examples are new occupational profiles in media, consulting, market research or financial services. A survey among firms found that the new occupations are popular both with young people as well as with employers (Hartung/Schöngen 2007: 28). Whereas before, firms in the new service sectors were more reluctant to take on apprentices, the participation rates in training between firms in the new sectors and those in the traditional core of the system have by now more or less converged (Hartung/Schöngen 2007: 52-53; Walden 2007; Thelen/Busemeyer 2008: 10).

Table 2: Relative increase of vocational degrees in production- and service-oriented occupations.

Berufsgruppe \ Jahr	1980	1993	1996	1999	2002	2005	2008	2009
insgesamt, in % aller Neuabschlüsse								
Produktionsberufe	51,0	47,8	49,6	46,5	44,3	43,2	42,4	41,4
Dienstleistungsberufe	49,0	52,2	50,4	53,5	55,7	56,8	57,6	58,6
davon:								
primäre DL-Berufe	35,8	34,5	34,4	37,4	37,9	40,8	41,0	41,8
sekundäre DL-Berufe	13,2	17,7	16,0	16,1	17,8	16,0	16,6	16,8
Insgesamt	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: BMBF/BIBB 2011: 139.

Table 2 shows the relative development of the number of awarded vocational degrees in production- and service-oriented occupations. This table yields several insights: First, the share of service occupations, although slightly lower than the share of production-oriented occupations in 1980, is now larger, i.e. significantly more apprentices are trained in service occupations rather than production-oriented occupations. Second, primary services (office clerks, catering and hotel personnel, cleaning etc.) are more important than secondary services (IT occupations, consulting, social and health occupations, etc.). But, third, the share of secondary service occupations has increased significantly across the last decades. So far, there is little evidence that the BA/MA revolution has crowded out vocational training programs in high-level services.

Despite considerable evidence that the German training system has adapted quite well to the demands of the new service economy, e.g. by creating and updating occupational profiles in the new economic sectors, these qualifications are by themselves not a sufficient insurance against atypical employment in the service sector. As Eichhorst, Marx and Thode (2010: 26ff) show, atypical employment is particularly prevalent in

low-skilled personal services, but also in parts of the high-skilled service sector (although it is likely to be more of a voluntary kind in the latter case). A prominent example discussed in the public was the case of hairdressers in Eastern Germany. Even with full vocational qualifications and collective wage bargaining coverage, the hourly gross wage for hairdressers in Saxony was merely 3,82 Euro in 2007.<sup>2</sup>

What is more, skilled employees might face direct competition from employees without full vocational credentials in low-skilled services and some crafts occupations. For example, traditional bakeries are facing increased competition from “baking factories”. Training for the officially recognized occupation of “baker” lasts 36 months. There is also an occupational profile for “skilled sellers in grocery crafts with a focus on bakeries” (*Fachverkäufer/in im Lebensmittelhandwerk, Schwerpunkt Bäckerei*). Again, the training for this occupation lasts 36 months and includes extensive training in dealing with customers, arranging bakery goods, work process planning, etc. In contrast, employees – often hired as “Minijobbers”, a new type of atypical employment – in “baking factories” only need to learn how to operate the oven and the cash register, which can be done through brief on-the-job instruction. In the crafts sector, a reform in 2004 liberalized a significant share of professions. For these professions, it is no longer necessary to have a vocational degree as it used to be before. Hence, skilled craftsmen now face low-cost competition from firms that do not train or do not employ skilled personnel (e.g. in the case of floor tiling).

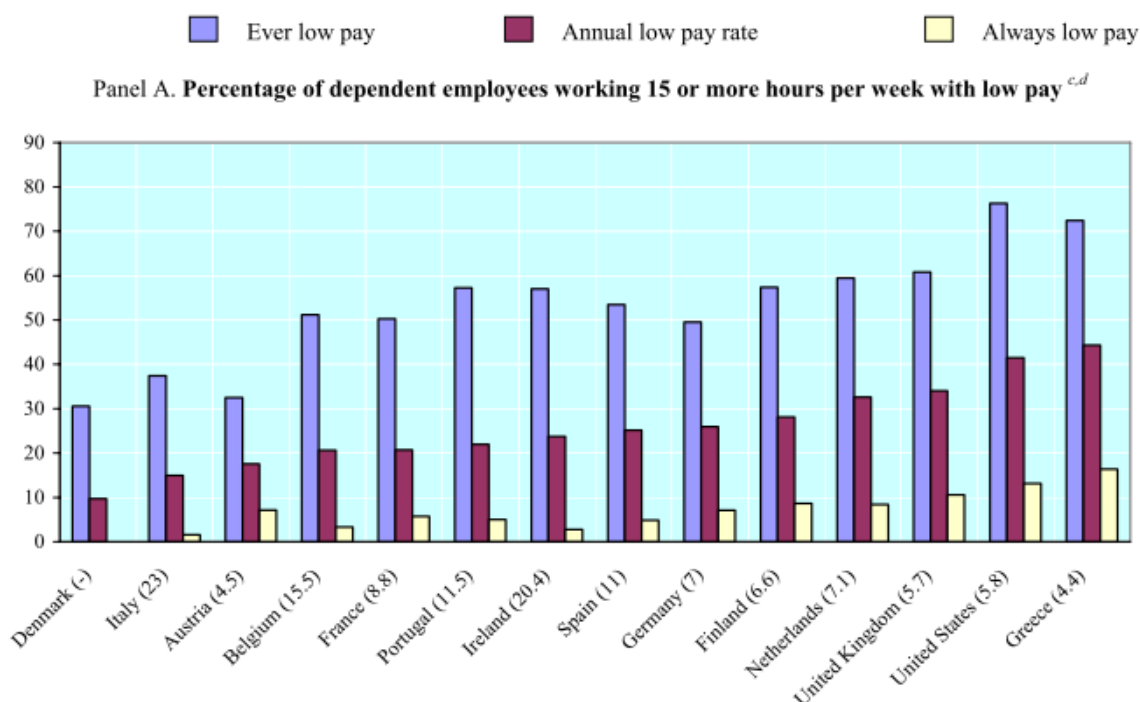
Figure 10 provides a picture of the incidence of low pay among youth over a five year period, 1997 to 2001. The proportion of youth in Germany who are still in low pay jobs after five years (yellow bar) is far higher than Denmark, although lower than the more liberal UK and US.

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<sup>2</sup> [http://www.welt.de/wams\\_print/article869328/Waschen-schneiden-sparen.html](http://www.welt.de/wams_print/article869328/Waschen-schneiden-sparen.html)

Figure 10: Incidence of low pay among youth, 1997-2001.

Figure 15. Alternative measures of low-paid employment <sup>a</sup> of youth, 15-24, over five years, 1997-2001 <sup>b</sup>



Source: Quintini, G. and S. Martin (2006), “Starting Well or Losing their Way?: The Position of Youth in the Labour Market in OECD Countries”, OECD Social, Employment and Migration Working Papers, No. 39: 53

Summing up the case of Germany, we can highlight the following: The German skill formation regime is a system that limits the flexibility of employers to hire and fire. It also decreases the replaceability of skilled workers, because it supports joint investments in co-specific assets. Thus, it should be an effective insurance against non-standard employment. However, the case study has revealed that access to the core of the training system is increasingly rationed. The link between high-quality training and skilled employment still exists in the core of the system, but is increasingly fragile for those at the periphery. The system has adapted quite well to the skill demands of the service economy, but again, this is not a sufficient insurance against low-skilled or atypical employment.

### Denmark

Among the Nordic political economies, Denmark shares the most similarities to Germany, having maintained a strong tradition of firm-sponsored apprenticeship (Crouch et al. 1999: 139). In 2009, 35% of the labor force over 16 years old had completed some form of apprenticeship education.<sup>3</sup> Moreover, as in Germany, Danish unions and employer associations are heavily involved and equally represented in national-level governance boards that monitor the training and testing through which youth earn nationally recognized

<sup>3</sup> <http://www.da.dk/bilag/AMR09%2CArbejdsmarkedsrapport%202009.pdf> (page 10), with thanks to Mikkel Mailand for the reference.



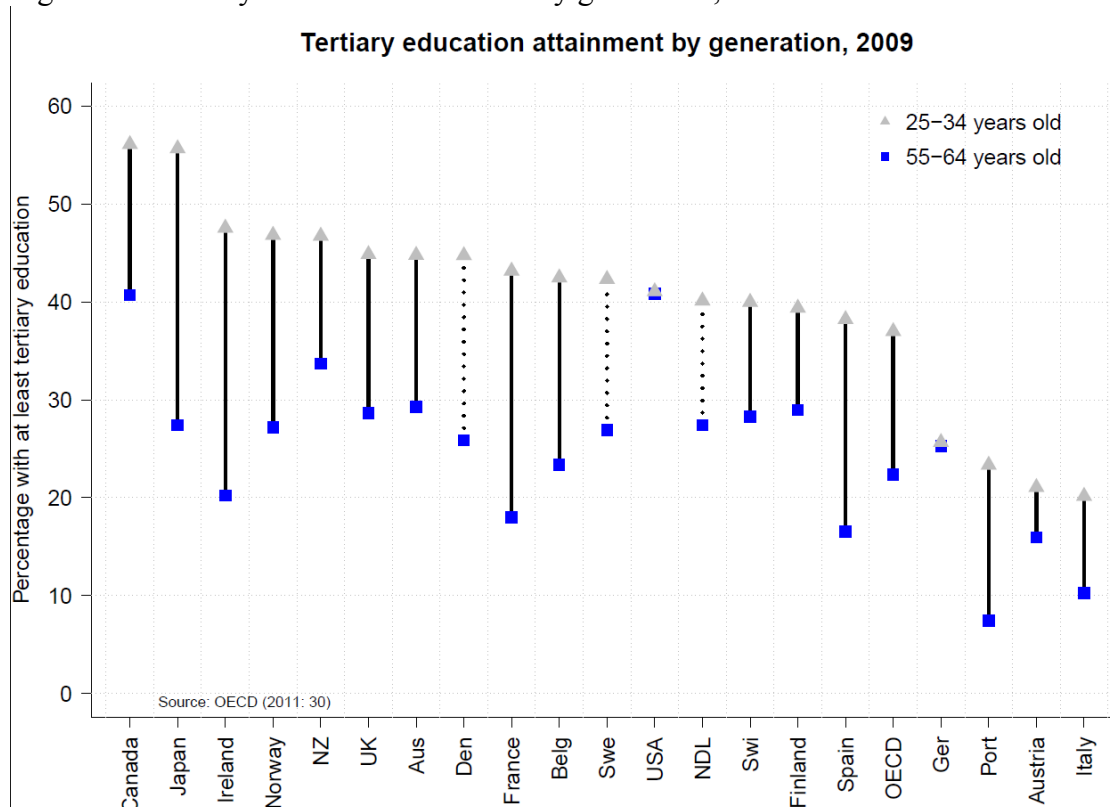
credentials. Like Germany, Denmark exhibits some “insider-outsider” dynamics with respect to training (Martin and Knudsen 2010). However, in Denmark public policy since the 1980s has pushed much more aggressively to expand access to training, among other things by expanding opportunities for equivalent credentialing through school based training. Thus, although Denmark exhibits somewhat higher levels of youth unemployment than Germany (figure 7), it also features much lower levels of NEETs than Germany or the UK (figure 8) and lower long-term youth unemployment (figure 9). Denmark has also promoted (and massively subsidized) continuing vocational education and training for unemployed adults (i.e., supplementing initial vocational education and training through much stronger public promotion of adult VET than in Germany).

With respect to initial VET, the Danish system has traditionally assigned a somewhat stronger role to the state, which in the 1960s presided over a vast expansion of VET. Whereas initial training had been dominated entirely by master apprenticeship, the government in 1956 enhanced the school-based component by mandating day-time instruction at public vocational schools (as opposed to previous after-work courses) as an integral part of apprenticeship (Nelson 2012: 192; Sørensen and Jensen 1988: 54). In addition, more specialized apprenticeships were introduced in the 1950s that addressed the interests of unskilled workers in Denmark, for whom shorter training programs created new opportunities to move to better-paid work (Sørensen and Jensen 1988: 54; see also Nelson 2012: 192).

While both Germany and Denmark have traditionally relied heavily on the private sector to sponsor training, the Danish state took a more central and proactive role in the 1970s. First, the Danish social democrats succeeded in introducing changes in the financing of firm training, including (in 1978) the imposition of a mandatory levy very similar to one that failed in Germany in the 1980s. Thereafter, all Danish employers pay into a fund, the Employers’ Reimbursement Scheme (Arbejdsgivernes Elevrefusion, AER) based on the number of full-time workers they employ. Training firms are then reimbursed on the basis of the number of apprentices they take in (Cort 2002: 24). Second, proposals to expand the role of school-based training that were resisted in Germany succeeded in Denmark. Thus in 1972 the Danes introduced an alternative to traditional master-apprenticeship in the so called “Basic Vocational Training” (EFG) that would allow students to stay in school for an additional year before moving into a shortened period of practical firm-based training (two years rather than the usual three or four) (Nelson 2012: 194-96). The EFG was institutionalized as a separate training track, and by 1986 enrollment in VET was roughly divided between traditional apprenticeship and the EFG system (Nelson 2012: 195; Sørensen and Jensen 1988: 64-65, 189).

Significant structural reforms to the Danish system in 1989 under a center-right government decentralized initial VET in Denmark. Local training centers would henceforth have more autonomy, and indeed were required to draw up education plans adapted to the needs of local industry and to regional labor market conditions. When the Social Democratic Party returned to power in 1993, it built on these changes, launching an ambitious “education for all” program designed to increase participation in education and to enhance the attractiveness of upper secondary school attendance (Grollmann et al. 2003: 6). Some reforms softened the line between academic and vocational tracks, making university more accessible. Since then state subsidies have increased, “making Denmark one of the most affordable tertiary education systems in Europe” (Nelson 2010: 479-80). While university attendance in Germany has remained very low by international standards, Danish university attendance has in the meantime caught up with the U.S. and UK. (figure 11).

Figure 11: Tertiary education attainment by generation, 2009.



Source: OECD 2011.

In terms of VET, many of the changes under the Social Democrats expanded the general (as opposed to firm- or occupation-specific) content of skills while also increasing individualization in their acquisition. Danish apprentices now work with “contact teachers” to develop an individual plan for what skills they will acquire and how. Apprentices maintain a personal education “logbook” to document competencies as they acquire them “in a kind of portfolio approach” (Grollmann et al. 2003: 12). Another set of reforms undertaken by the Social Democrats addressed shortages in firm-sponsored training by upgrading the status of school-based initial vocational education and training. In Germany, as we saw, the state-sponsored transition system is basically a holding pattern for youth who fail to land a firm-sponsored training slot, and does not offer formal certification. By contrast, since 1993 the Danish system offers young people who fail to land an in-firm apprenticeship the chance to complete their training in school-based trade courses (Nielsen 1995: 55). Students who enter into a training agreement with the vocational college instead of a firm are “obliged to continue applying for relevant training placements at enterprises” but if they are unsuccessful they continue in the classroom and receive full certification on completion anyway (CEDEFOP 2012: 26). Still, firm-based apprenticeship is widely seen as superior and it continues to dominate (in 2010, there were 73,014 firm-based apprenticeship contracts, as against just 3,677 school apprenticeships).<sup>4</sup>

The Danish training system has its own problems and as Martin and Knudsen have noted, also promotes its own insider-outsider dynamics by “forging barriers to the easy incorporation of marginal low-skill workers into training” (Martin and Knudsen 2010). Lengthy apprentice programs “create a programmatic hurdle for those who need or want fewer skills than are

<sup>4</sup> [http://www.uvm.dk/Service/Statistik/Statistik-om-erhvervsuddannelserne/~media/UVM/Filer/Udd/Erhverv/PDF11/110510\\_aarsstatistik\\_for\\_praktikpladsomraadet\\_2010.ashx](http://www.uvm.dk/Service/Statistik/Statistik-om-erhvervsuddannelserne/~media/UVM/Filer/Udd/Erhverv/PDF11/110510_aarsstatistik_for_praktikpladsomraadet_2010.ashx) (table page 6).

offered by these expansive programs” (Martin and Knudsen 2010: 357). Firms that want fewer skills are not willing to sponsor costly training, and the existing programs often overshoot what low-skill workers themselves think they need and want. In this way, Denmark’s high quality initial training may “enlarge the gulf between core and peripheral workers” (Martin and Knudsen 2010). This gap is felt most strongly among ethnic minorities, and as in Germany becomes more acute in economic downturns. For example after the financial crisis, ethnic minorities had a much more difficult time landing a firm-sponsored training slot.<sup>5</sup>

Reforms in the late 2000s have sought to address these issues, e.g., by offering the possibility of “partial qualifications” specifically for weaker students, by inaugurating so-called “new apprenticeships” as an alternative path for those with lower aptitude and interest in theory (allowing them to forego lengthy classroom instruction and proceed directly to practical experience) (CEDEFOP 2012: 22, 31), and by implementing reforms that award credit for prior learning through work experience. Such initiatives have encountered much more resistance in Germany, where unions still vigorously defend a more holistic and unified approach and have been skeptical of modularization as “watering down” apprenticeships. Overall and again as figures 7 through 9 show, the transition from apprenticeship to work seems somewhat less smooth than in Germany (higher levels of youth unemployment) but alongside other institutional arrangements and policies (notably labor market policies and industrial relations institutions), seems better able to avoid long-term youth unemployment and low pay work among youth as well.

The most marked differences between Germany and Denmark lie in the area of continuing VET, where Denmark has emerged as a leader even as Germany continues to lag behind in international comparisons. In sharp contrast to Germany, CVET in Denmark is strongly institutionalized, flexible, easily accessed, and generously supported by the state. Beginning already in 1960 state-run Labor Market Vocational Training Centers (AMUs) offered continuing training for working adults, with a very large share of the costs of training (85%) borne directly by the state (Sørensen and Jensen 1988: 57). These institutions were put under the jurisdiction of the Ministry of Labor rather than the Ministry of Education, and they soon “became an important tool in overall labor market policy” (Cort 2002: 25).

Since the 1990s, important changes have also occurred in the area of continuing VET. Similar to the changes in IVET discussed above, these involve a flexibilization of training on three fronts – further modularization of training offerings in order to facilitate the flexible accumulation of skills and credentials, easing of traditional boundaries between initial and continuing education and training and between training for youth and for adults, and dismantling of boundaries between training for the employed and unemployed. Although much of the structure through which CVET now flows pre-dates the inauguration of Denmark’s famous “flexicurity” turn in the 1990s, state subsidies for training increased dramatically as more stringent work requirements for the unemployed were applied. Between 1993 and 1998 spending on adult education grew faster than any other area of education, increasing by 38% (Schulze-Cleven n.d.: 21) and participation in all categories of adult education and training increased by about 36% (OECD 2002: 15). In the 1990s fully two-thirds of spending on further training was allocated to the unemployed in conjunction with activation requirements (Mailand 1999: 3). This has declined in the meantime in response to

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<sup>5</sup> See (<http://www.ae.dk/analyse/indvandrerere-efterkommere-har-langt-svaerere-ved-finde-praktikplads>). In the previous (low-unemployment) years of 2000-2008, the numbers were more favorable, with success rates well over 50% (Mikkel Mailand, personal communication).

studies showing less-than-impressive employment effects. However, in international comparisons, the Danes still spend more on training for the unemployed than in virtually any other EU country. As Schulze-Cleven notes, Denmark had the highest participation rate of all the OECD countries, at 35% participation for unemployed and 47% for employed (Schulze-Cleven 2009: 221).

CVET is thus very well supported in Denmark and in fact nowhere does the state spend more on further training than there. The government provides very substantial financial incentives to firms to get them to take apprentices (currently about €10,000 per apprentice position) (Nelson 2012: 184). As Bredgaard and Larsen point out, “[Extensive state financing] externalizes the costs of training and education for the firms, and indirectly serves as a government subsidy to the competitiveness of Danish industry.... Since the continuing training is predominantly financed by the public budget CVET activities are more likely to provide general rather than firm-specific skills and more likely to be [sic] transferable on the external labor market” (Bredgaard and Larsen 2010:5). As a result of these initiatives and programs Denmark emerged as the EU leader in life-long learning. In 2003, participation rates in training and lifelong learning during the previous twelve months were already twice the EU25 average. Annually about 60% of workers with higher education participated in further training, along with 40% of craft workers and 30% of formally unskilled (Schulze-Cleven 2009: 221). The participation rates in adult education at all educational levels continue to outstrip the EU averages. If there has been a criticism of CVET it is that most continuing training is taken by the already skilled. It is certainly true that the uptake in CVET increases with level of educational attainment, but in cross-national comparisons the extent of training at all levels stands out. According to the most recent figures, 23.4% of Danes with the lowest educational achievement (ISCED levels 0-2) participate in such courses (compared to the EU average of 3.8%), 30.7% of Danes at the next level (ISCED 3-4) participate (EU average: 8.0%), and 41.1% of Danes in ISCED level 5-6 participate (EU average: 16.7%) (CEDEFOP 2012).

In sum, recent reforms to Danish education and training have expanded massively opportunities and support for training at all levels. Combined with rather flexible labor markets, this has produced a situation in which Denmark outperforms Germany with respect to access to training and has fewer signs of dualization (as indicated in the lower proportion of youth experiencing long-term unemployment and/or low pay).

### *The United Kingdom*

Fundamentally a liberal system, the UK's training system has always had a voluntarist character (King 1997). Although there was a strong tradition of apprenticeship training reaching back to the Middle Ages, the state refrained from actively intervening in this area by imposing a strong regulatory framework. Up until the end of the 1970s, craft unions used the apprenticeship system to defend their position regulating access to skilled occupations. Different from industrial unions, these craft unions therefore had an inherent interest to ration the number of apprentices in order to avoid wage competition in skilled occupations. One consequence of this development was very high levels of youth unemployment in the 1970s, which paved the way for radical reforms under the Thatcher government.

With regard to the training system, two critical changes were implemented in the 1980s: First, in order to fight youth unemployment, the Conservative government enacted a

new labor market program for youth in 1983: the Youth Training Scheme (YTS). Similar programs had been started in the 1970s on a much smaller scale, but the YTS triggered a fundamental shift in the institutional logic of the training system, in particular because the government promoted the demise of the traditional apprenticeship system at the same time, which was still prevalent in some sectors of the economy. Whereas before vocational training was still closely connected to skilled employment, the primary purpose of the new YTS was to fight youth unemployment, not to contribute to skill formation (Finn 1987; Lee 1989).

The second major change in the logic of the system was the dismantling of corporatist institutions that had been set up in the 1970s. The tripartite Manpower Services Commission (MSC), previously charged with managing the collective skill formation system of the 1960s and 1970s, first enjoyed a significant upgrade in status and competencies, because it oversaw the implementation of the YTS. In the late 1980s, however, it was effectively dismantled. Reacting to unions' criticism of the YTS scheme as lacking in quality and content, the government decided to end the quasi-corporatist cooperation with unions altogether (King 1993: 226-227). Instead, the issue of skill formation was put in the hands of Training and Enterprise Councils (TECs), mostly consisting of employer representatives.

The re-definition of vocational training as an instrument of social policy, not skill formation, and the breaking up of the corporatist framework had major consequences for the further development of the training regime in the 1990s and beyond. In the 1990s, governments of various stripes tried to resuscitate the firm-based apprenticeship system in order to improve the employment prospects of low-skilled youths. However, these efforts foundered, largely due to the reluctance of employers to invest in skill formation (Fuller/Unwin 2003; King 1997; Ryan/Unwin 2001). Along with the establishment of TECs, the government enacted a new system of vocational qualifications (National Vocational Qualifications – NVQs), which were supposed to strengthen mechanisms of authoritative certification of skills. Given the policy legacy of voluntarism, however, the following years witnessed an explosion in the number of NVQs, so that training providers or employers could essentially design their own specific skill set. This proliferation is also a consequence of the fact that unions are shut out of the process of designing occupational profiles. In Germany, union influence in the design of training curricula ensures that skill profiles are not too narrow and specific, but include transferable vocational skills to facilitate job mobility. What is more, in contrast to Germany, training is largely paid by government funds and often administered and provided not by employers themselves, but specialized training providers. As a consequence, the commitment of British employers to VET remains low (Ryan/Unwin 2001: 109).

In 1994, the Conservative government of John Major introduced the Modern Apprenticeship (MA), which was intended to provide high-quality training and thus to establish a route out of the low skills equilibrium identified by Finegold and Soskice (1988). Although it was found to be more effective in this regard than the YTS, the lack of quality in training remained a problem, especially after a new type of Foundation Modern Apprenticeship was introduced in the late 1990s, geared at the provision of lower skills (Ryan/Unwin 2001). Recent efforts by various governments to improve learning opportunities for unemployed and low-skilled youths, which gained particular political relevance in the crisis and after the riots of 2011, largely follow earlier

attempts. For example, the New Deal for Young People (NDYP), launched by the Labour government in 1998, provided temporary relief, but did not establish a new regulatory framework which would break the policy legacy of voluntarism (King/Wickham-Jones 1998; OECD 2008: 19-20). This was followed by the “14-19 Strategy” in 2005, which aims at establishing yet another type of vocational diplomas and at increasing opportunities for workplace-based training.

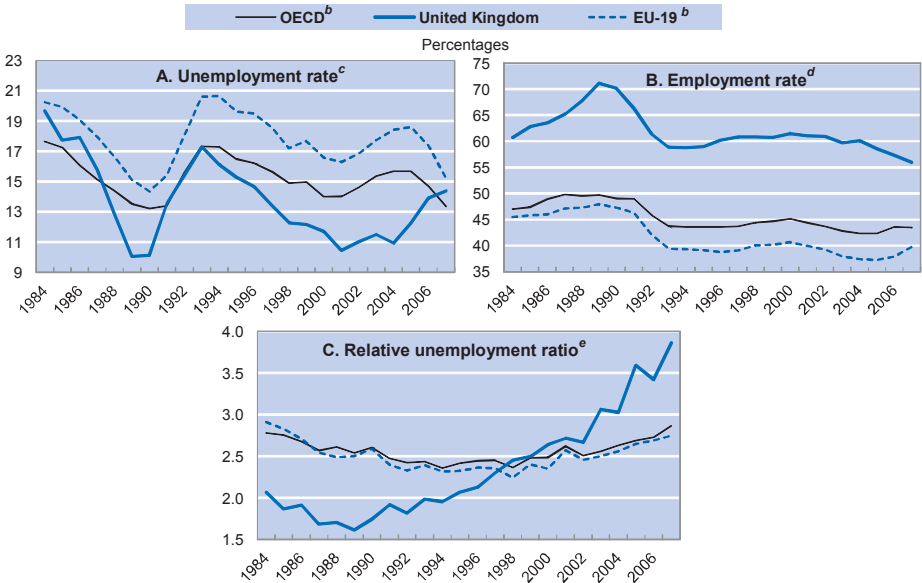
What are the effects of liberal skill formation institutions on labor market stratification? As stated before, the liberal character of the labor market makes it easier for young people to get access to employment (Martin/Knudsen 2010). Also, as Fuller and Unwin (2003: 11-13) argue, Modern Apprenticeships are actually quite popular in the old and new service sectors of the economy. Thus, as in Germany, it is not the case that the instrument of apprenticeship training would be fundamentally non-applicable in a service economy. The consequence of a voluntarist training system with quality problems is, however, that the kind of employment that young adults end up in is often low paid as well. Hence, the polarization between academically trained employees in high-level services on the one hand and low-skilled employees with little or low-quality training on the other is mirrored in high levels of wage inequality.

These impressions are supported by data from the OECD. Figure 12 shows that the United Kingdom performs relatively well with regard to youth unemployment. The level of unemployment for 16-24 years olds in the UK is significantly lower than the OECD average across the whole period of 1984 until 2007 (Panel A, Figure 12). Equally, the employment rate is significantly higher during that time (Panel B). Nonetheless, as figure 7 showed, youth unemployment in the UK still outstrips the other two countries considered here (although as figure 9 showed, the picture is slightly brighter for long-term youth unemployment). Moreover, as can be seen from Panel C, the relative distribution of the risk of unemployment across generations has changed recently. Until the mid-1990s, young adults' risk of being unemployed was significantly lower than the risk of the older generation. In the recent period, this ratio has reversed .

Figure 13 shows that about a third of young people in the UK end up in low-paying jobs. The relatively high share of young people with low pay indicates a high share of young adults, who are Not in Education, Employment or Training (NEET) (as indicated in figure 8). Furthermore, the OECD study reveals that training opportunities for young people in employment are very limited (OECD 2008: 59).

In sum, the British case demonstrates that liberal skill formation regimes perform better than average with regard to the inclusion of young people in the labor market, even if countries with more well-developed VET systems perform better in that regard. However, the kind of employment and training that young adults in the lower half of the skills distribution receive continues to be of lower quality and hence produces a higher risk of low-pay than in the case of other skill regimes.

Figure 12: Youth unemployment and employment indicators, OECD, United Kingdom and Europe, 1984-2007.

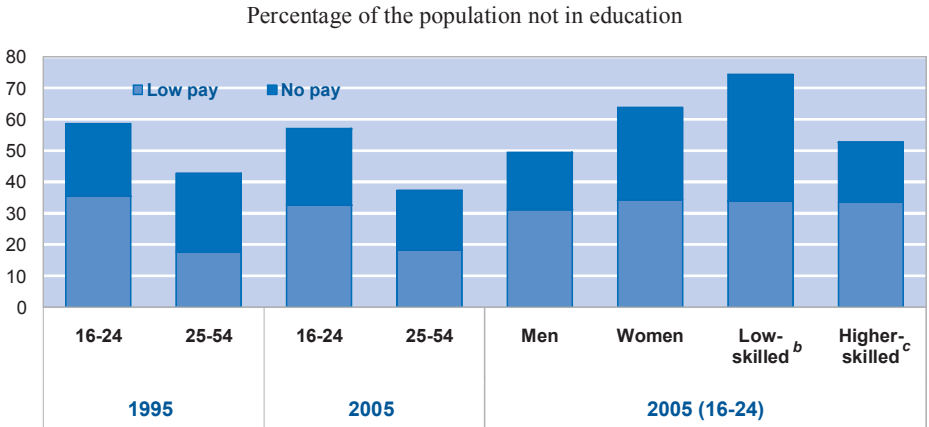


- a) Youth aged 16-24 for Iceland, Norway, Spain, Sweden, the United Kingdom and the United States; youth aged 15-24 for all other countries in the OECD average.
- b) Unweighted averages; values for 2007 are preliminary.
- c) Unemployed as a percentage of the labour force in the age group.
- d) Employed as a percentage of the population in the age group.
- e) Unemployment rate of youth (15/16-24)/unemployment rate of adults (25-54).

Source: National labour force surveys.

Source: OECD 2008: 43.

Figure 13: Incidence of low pay and no pay, United Kingdom, 1995 and 2005.



- a) Workers are considered to be in low-paid employment if they work at least 15 hours per week and receive an hourly wage of less than two-thirds the median adult value. There is hardly any variation in the share of workers employed for less than 15 hours across groups – approximately 15%.
- b) Less than ISCED 3; ISCED: International standard classification of education.
- c) Greater than or equal to ISCED 3.

Source: OECD Secretariat calculations based on the British Household Panel Survey, waves from 1 to 15.

Source: OECD 2008: 61.

## Conclusions

The foregoing analysis has explored the contribution of systems of skill formation to the outcomes at the heart of this volume. An examination of broad cross-national patterns, complemented with case studies of three important countries produced findings that partly confirm the conventional wisdom and partly call it into question. In line with previous studies, we find that firm-sponsored apprenticeship training systems are overall associated with lower levels of youth unemployment than “liberal” training regimes. In this sense, our findings offer support for the conventional wisdom that such systems ease the transition of youth from school into the labor force. However, our study also shows that dual apprenticeship systems by no means prevent the emergence of significant labor market stratification. Instead we find that even though firm-based VET is more effective in reduction youth unemployment, school based VET seems to be more effective in mitigating labor market stratification through wage inequality. While clearly industrial relations institutions play an important role in explaining these outcomes, our case studies of Denmark and Germany also suggest that the supply of training slots is an important factor. While the German system of firm-sponsored training has begun to adapt to the services transition, the persistence of a significant “transition” system as well as a large and growing low-wage sector signals continued problems with regard to the supply of training for youth – and adults – seeking to enhance their skills or retool for new jobs. In this regard the less voluntarist Danish system (featuring heavier state involvement in financing both initial and continuing VET) seems better equipped to support a broader distribution of skills, along with lower levels of wage inequality. Finally, and again consistent with the received wisdom, liberal training regimes like that in the UK present fewer barriers to youth entering the labor market but are also associated with especially high levels of wage inequality and precarious employment.



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