The Swiss Apprenticeship System

Its Institutional Specificities and Strengths in International Perspective

Author: Lukas Graf

Key Socio-economic Figures in Comparative Perspective

	Switzerland	United States	OECD – Total
Population (in million, 2012)	8.0	313.9	-
GDP (U.S. dollars/capita, 2012)	52,586	51,435	36,764
*Gini coefficient** (2011)	0.29	0.39	0.32
Unemployment rate (% of labor force, Q1 2014)	4.8	6.7	7.5
Youth not in education or employment (NEET) (% in same age group, 2012)	12.1	17.7	17.5

*0 corresponds to perfect income equality, 1 to perfect income inequality.

Source: OECD Data http://data.oecd.org/ (accessed 16 November 2014)

Locating Switzerland's Education System in Terms of Diverse Regional Influences

Switzerland is a rich industrialized Western democracy which, despite its small size, displays significant regional variation in terms of the institutional set-up of its vocational education and training (VET) system. Notably, VET in Switzerland is set up differently in the two major language regions, namely the German-speaking part (*Deutschschweiz*) and the smaller French-speaking part (*Westschweiz*). Next to these two regions, which form culturally "bounded communities,"[1] there is also a small Italian-speaking region (mainly the canton of Ticino). However, the German-speaking part is by far the largest socio-cultural region in Switzerland in terms of indicators such as geographical size, population, and share of GDP. This is also reflected in the distribution of

the main languages spoken by the Swiss population: German: 63.7 percent, French: 20.4 percent, Italian: 6.5 percent, Rhaeto-Romanic: 0.5 percent, and non-official languages: 9 percent.[2] Dual apprenticeship training, which is the key concern of this essay, is most dominant in the German-speaking part. In contrast, in the French-speaking part the focus is more on full-time school-based VET, which is in part due to the geographic and cultural proximity to France, where full-time VET schooling has a long tradition.[3] Nevertheless, the overall participation rate in apprenticeship training for Switzerland as a whole is still above 60 percent (see Table 1).

The Swiss Skill Formation System at Upper- and Post-Secondary Levels

Upper-secondary education in Switzerland is divided into general education programs and vocational education and training programs. General education is provided by academic baccalaureate schools (*gymniasale Maturitätsschulen*) and specialized middle schools (*Fachmittelschulen*). Academic baccalaureate schools usually take four years to complete and lead to a university entrance qualification. Specialized middle schools last three years and offer a Certificate of Specialized Middle Schools (*Fachmittelschulausweis*), which grants access to colleges of higher vocational education and training (*höhere Fachschulen*). After completing an optional additional year, students of specialized middle schools can attain the Specialized Baccalaureate (*Fachmatura*), which offers access to universities of applied sciences in their respective field of specialization.

In the field of initial VET, there are programs of dual apprenticeship training as well as full-time school-based VET. Apprentices spend around three to four days a week in the firm (*Lehrbetrieb*), and the rest of the time in the vocational school as well as in inter-company vocational training (*überbetriebliche Ausbildung*). Unlike in the dual systems of Germany and Austria, in Switzerland inter-company courses are an integral part of the dual training system. Inter-company courses are organized by the respective professional associations (*Berufsverbände*) and help young people to acquire further practical competence. Therefore, Switzerland could even be classed as having a triple system (*triales System*).[4]

Initial VET related to apprenticeship training can be further distinguished according to three major types of qualifications. First, there are two-year programs tailored for students that are considered to be primarily practically-skilled, leading to a Basic Federal Certificate (*eidgenössisches Berufsattest*). The second and major organizational form in the dual system, namely the three- to four-year programs, prepares apprentices for a specific occupation and leads to a Federal Certificate (*eidgenössisches Führungszeugnis*), which also gives apprentices access to higher VET programs at the post-secondary level (*höhere Berufsbildung*). Third, there is the additional option of acquiring a vocational baccalaureate, which grants access to the universities of applied sciences.

As Table 1 shows, in 2011 the share of students in academic baccalaureate schools was only around 24 percent, whereas around 64 percent were participating in dual apprenticeships. Less than 7 percent of students were enrolled in full-time vocational schools, although this share is higher in the French and Italian speaking parts of Switzerland.[5]

Table 1: Students under the age of 20 in the first year of a multi-year certified educational

program at upper-secondary level, 2011*

	No.	%
Total	**90,466**	**100**
General education	**25,984**	
Academic baccalaureate schools	21,330	23.6
Specialized middle schools	4,654	5.1
VET	**64,482**	
Apprenticeship	57,637	63.7
School-based VET (full-time)	6,059	6.7
Uncertified apprenticeship (*Anlehre*)	786	0.9

*Not including the canton of Ticino

Source: Federal Statistical Office, "Ausbildungsform der beruflichen Grundbildung, 1990-2012" (Neuchâtel: BFS, 2014) and "Berufs- und Allgemeinbildung auf der Sekundarstufe II, 1990-2012" (Neuchâtel: BFS, 2014); own calculation of percent values

At the post-secondary level, the main organizational forms within the higher education sector (ISCED 5A) are the cantonal universities, the federal institutes of technology (which are regarded as "elite institutes" in Switzerland), and the Swiss universities of applied sciences. The Swiss higher VET sector (ISCED 5B) consists of colleges of higher vocational education and training as well as preparation programs for higher vocational education and training exams, both of which are strongly practice-oriented. The higher VET sector is huge in international comparison, is highly developed, and is an attractive pathway for those seeking to boost their professional career. Around half of all certificates annually granted at the post-secondary level originate from the higher VET sector.[6] This sector is distinct from higher VET in countries such as the U.S., for example, given that its main target group is skilled workers who already hold an official VET certificate from the upper-secondary level and also as it is operated with strong involvement of the employer associations, yet nationally regulated by a federal law.[7]

The Governance of Skill Formation in Swiss Small State Corporatism

The Swiss political system is characterized by its consensual operation. At the federal level, the body in charge for education is the State Secretariat for Education, Research, and Innovation. Broadly speaking, the influence of the federation is limited while the twenty-six cantons, as well as numerous private interest organizations, play an important role in self-regulating socio-economic institutions.[8] All major political parties—which, generally speaking, support the dual apprenticeship system and aim to maintain its attractiveness[9]—are included in the Swiss government (*Bundesrat*) due to the specific Swiss consociation system. However, in international

comparison, the political parties in Switzerland have a rather weak position in the process of political decision-making. A major reason for this is that the Swiss private interest organizations are included in the consultation procedure prior to parliamentary decision-making.[10] That is, both the interest associations of the employers and of the employees are usually involved in the law-making process at the drafting stage.

Thus, responsibility for initial and higher VET is shared between the federation (key task: strategic development), the "professional organizations from the world of work" (*Organisationen der Arbeitswelt*) (key task: curricula development and provision of apprenticeship places), and the cantons (key task: implementation and control).[11] *Organisationen der Arbeitswelt* (OdA) is an umbrella term for professional associations, social partners, and a number of other organizations involved in VET. The OdA are further divided into the VET network of the employees (*Netzwerk Berufsbildung der Arbeitnehmenden*)[12] and the VET network of the employees (*Arbeitgeber-Netzwerk für Berufsbildung*).[13]

The two key business interest associations in those economic sectors more sheltered from developments in the international economy are the Swiss Trade Association (*Schweizerischer Gewerberverband*), for small businesses and tradespeople, and the Swiss Farmers' Association (*Schweizerischer Bauernverband*). There are two other business interest associations in the more internationally exposed sectors of the economy: the Swiss Employers' Association (*Schweizerischer Arbeitgeberverband*) and "economiesuisse."[14] The two most important trade unions in Switzerland are the Swiss Federation of Trade Unions (*Schweizerischer Gewerkschaftsbund*) and Travail.Suisse. Both of these employee organizations, which often compete with each other, organize a number of smaller sectoral unions and employee associations.

However, in Switzerland's rather liberal labor market setting,[15] the influence of these trade unions on the VET system is rather limited, as the collective bargaining agreements are not directly linked to VET qualifications, as is (partly) the case in countries such as Germany or Austria. In fact, Switzerland is often characterized as belonging to the liberal variant of democratic corporatism in which the business community has enjoyed more power than the labor movement.[16] Nevertheless, the consensually-oriented political system of Switzerland—sometimes referred to as "small state corporatism"[17]—implies that weaker parties such as trade unions are still incorporated into the political decision-making process. Thus, while the training regulations are mostly drawn up by the employer associations, the trade unions are still consulted on the layout of the job profiles and also participate in VET expert commissions.[18]

Furthermore, as was noted earlier, the twenty-six Swiss cantons play an important role in the Swiss education system. For example, each of the cantons has its own department for VET and the Conference of the Swiss Cantonal Vocational Training Departments (SBBK) provides a political platform for inter-cantonal coordination. Institutional innovation in the Swiss VET sector is sometimes linked to the presence of "laboratory federalism," as the strong cantonal influence in the field of VET permits a variety of institutional solutions to be tested and, if successful, their national diffusion through intermediary organizations such as the SBBK.[19]

Key Factors Behind the Success of the Swiss Apprenticeship System

A central feature of the Swiss apprenticeship system—which is central to its successful evolution—is the wide-ranging commitment that firms make to it. Around one-third of employers are offering training places.[20] Thus, next to the 3 billion Swiss Francs (CHF) that the state invests in VET, firms contribute around CHF 5.3 billion (including apprentices' wages; figure for 2009).[21] However, on average a firm providing training places in the dual system is making a net gain over the course of the apprenticeship, given that apprentices already add to the firm's productivity, in the form of work, during their apprenticeship. Yet, it should be noted that the cost/benefit ratios differ depending on the occupation. Thus, for example, the net benefit for the training firm, per VET student, over the duration of the apprenticeship for an electrical technician is around $50,000, whereas for an IT specialist there occur net costs of roughly $7,500 (figures for 2009).[22] At a more general level, the prominent role of apprenticeship training in Switzerland is greatly supported by the strength of the Swiss economy, leading to a high demand for certified skilled workers as well as an attractive remuneration.

A related condition supporting the sustainability of apprenticeship training in Switzerland is that the interests of firms are mediated by the respective interest associations to avoid that the training programs lead to too narrow firm-specific skills. Crucially, training ordinances are not worked out by individual firms but through their associations, ensuring that a sufficiently broad set of skills is forming the core of the curriculum. At the same time, large firms are not in a position to dominate the training ordinances in their own interest, as small and medium-sized firms are well represented in the relevant negotiations through their respective trade associations.[23] More generally, the collective governance of VET is tailored toward consensus, while at the same time key VET stakeholders are strongly involved in the policymaking process both at the federal and the cantonal governance levels.

In fact, the Swiss case can provide a model for other federal countries, including the U.S., considering how the federal and the federal state levels—through numerous intermediary actors—constructively work together. Thus, regional diversity is not seen as an obstacle to the creation of transparent national educational standards. In fact, the cantonal system rather can be understood as a form of "laboratory federalism"[24] in which VET reforms can be tested locally and, if successful, be diffused at the national level. Given that there are already successful projects in the U.S. in which firms and community colleges implement dual forms of training (e.g., the Apprenticeship 2000 program in North Carolina),[25] the Swiss case can offer helpful insights into how such initiatives can be shored up and possibly standardized at the federal level.

The probably most impressive contemporary achievement related to this mode of governance is the way in which the Swiss VET actors have responded to the ongoing upgrading of skill requirements. Thus, the rise of the knowledge-based economy has challenged the traditional institutional separation of dual apprenticeship training and higher education—a problem that Switzerland shares with its neighboring country Germany.[26] However, beginning in the early 1990s Switzerland has created new pathways between the two systems that allow individuals to transit from one sector to the other.[27] Thus, for instance, in 1993 the vocational baccalaureate was introduced which can be accomplished in parallel or sequentially to an apprenticeship program. This baccalaureate provides access to the universities of applied sciences that were established in 1995. As a result of these reforms, the Swiss apprenticeship system remains an attractive option also for talented young students with potential ambitions to move on to higher education studies.[28] This successful

modernization builds on a normative principle deeply embedded in large parts of Swiss society, namely that vocational education and training and general academic training are "different but equal" ("*andersartig, aber gleichwertig*"). In contrast, in the U.S., vocational training is often rather seen as an educational pathway only for those who cannot manage to qualify for higher education and even in Germany, the appreciation for VET is slightly less pronounced than in Switzerland. However, foreign observers interested in learning from the Swiss example should note that it is precisely the "different but equal" principle which has played a key role in enabling the continuous adaption of the apprenticeship system to new socio-economic challenges. If the U.S. aims to learn from the Swiss experience, it should seek ways to improve the reputation of work-based training programs through better linking the vocational and academic worlds of learning. In the U.S. context, a crucial step toward this goal would be to encourage higher education institutions—and also those universities highly ranked in national league tables—to step up their cooperation with (local) firms in providing innovative practice-oriented educational programs.

Dr. Lukas Graf is a postdoctoral researcher at the Institute of Education and Society of the University of Luxembourg.

[1] H. Geser, Sprachräume als Arbeits- und Organisationskulturen. Vergleichende empirische Befunde in der deutschen und französischen Schweiz (Zurich: Soziologisches Institut der Universität Zürich, 2003), 2.

[2] G. Lüdi and I. Werlen, ed., *Sprachenlandschaft in der Schweiz* (Neuchâtel: Swiss Federal Statistical Office, 2005), 7.

[3] See J. J. W. Powell, L. Graf, N. Bernhard, L. Coutrot & A. Kieffer, "The Shifting Relationship between Vocational and Higher Education in France and Germany: Towards Convergence?" in *European Journal of Education* 47:3 (2012), 405-423.

[4] E.g. E. Wettstein & P. Gonon, *Berufsbildung in der Schweiz* (Bern: hep verlag ag, 2009).

[5] See Federal Statistical Office, "Ausbildungsform der beruflichen Grundbildung, 1990-2012" (Neuchâtel: Swiss Federal Statistical Office, 2014).

[6] L. Gaillard, Abschlüsse der höheren Berufsbildung: eine statistische Bestandsaufnahme (Neuchâtel, Swiss Federal Statistical Office, 2011), 6.

[7] See E. Wettstein & P. Gonon, Berufsbildung in der Schweiz (Bern: hep verlag ag, 2009), 192-204.

[8] See A. Mach, & C. Trampusch, "The Swiss Political Economy in Comparative Perspective," in *Switzerland in Europe. Continuity and Change in the Swiss Political Economy,* ed. C. Trampusch & A. Mach (London: Routledge**,** 2011), 11-23.

[9] L. Graf, *The Hybridization of Vocational Training and Higher Education in Austria, Germany and Switzerland,*

(Opladen: Budrich UniPress, 2013), http://dx.doi.org/10.3224/86388043.

[10] A. Ladner, "Das Parteiensystem der Schweiz," in *Die Parteiensysteme Westeuropas,* ed. O. Niedermeyer, R. Stöss & M. Haas (Wiesbaden: VS Verlag für Sozialwissenschaften**,** 2006), 397-419.

[11] See, e.g., SBFI, *Fakten und Zahlen – Berufsbildung in der Schweiz 2014* (Bern: Staatssekretariat für Bildung, Forschung und Innovation, 2014), 6-7.

[12] See http://www.bildungsgewerkschaften.ch/wir.php (accessed 17 November 2014)

[13] See http://www.squf.ch/index.jsp (accessed 17 November 20)

[14] See H. Kriesi & A. H. Trechsel, *The Politics of Switzerland – Continuity and Change in Consensus Democracy* (Cambridge: Cambridge University Press, 2008), 100-104.

[15] See e.g., U. Becker, *Open Varieties of Capitalism – Continuity, Change and Performances* (Houndsmill: Palgrave Macmillan, 2009).

[16] See e.g., P. J. Katzenstein, *Corporatism and Change: Austria, Switzerland, and the Politics of Industry* (Ithaca: Cornell University Press, 1984).

[17] Ibid.

[18] C. Ebner, *Erfolgreich auf dem Arbeitsmarkt? Die duale Berufsausbildung im internationalen Vergleich* (Frankfurt/Main: Campus, 2013), 70.

[19] See P. Gonon, "Reformsteuerung, Stabilität und Wandlungsfähigkeit der Berufsbildung –‚Laboratory Federalism' als Motor der Bildungsreform in der Schweiz," in *Steuerungsprobleme im Bildungswesen,* ed. U. Lange, S. Rahn, W. Seitter & R. Körzel (Wiesbaden: VS Research, 2010), 249-265.

[20] OECD, *Learning for Jobs – OECD Reviews of Vocational Education and Training* (Paris: OECD Publishing, 2009), 16.

[21] M. Strupler, & S. C. Wolter, *Die duale Lehre: eine Erfolgsgeschichte – auch für die Betriebe* (Zurich: Rüegger, 2012).

[22] SKBF, *Bildungsbericht Schweiz 2014* (Aarau: Schweizerische Koordinationsstelle für Bildungsforschung, 2014): 134; M. Strupler, & S. C. Wolter, *Die duale Lehre: eine Erfolgsgeschichte – auch für die Betriebe* (Zurich: Rüegger, 2012).

[23] OECD, *Learning for Jobs – OECD Reviews of Vocational Education and Training* (Paris: OECD Publishing, 2009): 17; P. Gonon & M. Maurer, "Educational Policy Actors as Stakeholders in the Development of the Collective Skill System: The Case of Switzerland," in *The Political Economy of Collective Skill Formation,* ed. M.

R. Busemeyer & C. Trampusch (Oxford: Oxford University Press, 2012), 126-149.

[24] P. Gonon, “Reformsteuerung, Stabilität und Wandlungsfähigkeit der Berufsbildung – ‘Laboratory Federalism’ als Motor der Bildungsreform in der Schweiz,” in *Steuerungsprobleme im Bildungswesen,* ed. U. Lange, S. Rahn, W. Seitter & R. Körzel (Wiesbaden: VS Research, 2010), 249-265.

[25] See, e.g., L. Graf, J. J. W. Powell, J. Fortwengel & N. Bernhard, *Dual Study Programmes in Global Context: Internationalisation in Germany and Transfer to Brazil, France, Qatar, Mexico and the US*. Dok&Mat 77 (Bonn: German Academic Exchange Service, in press); J. J. W. Powell & J. Fortwengel (2014) “Made in Germany” – Produced in America? How Dual Vocational Training Programs Can Help Close the Skills Gap in the United States. AICGS Issue Brief 47 (Washington, DC: American Institute on Contemporary German Studies).

[26] J. J. W. Powell & H. Solga, “Why are Participation Rates in Higher Education in Germany so Low? Institutional Barriers to Higher Education Expansion,” in *Journal of Education and Work* 24:1-2 (2011), 49-68.

[27] See e.g., L. Graf, *The Hybridization of Vocational Training and Higher Education in Austria, Germany and Switzerland* (Opladen: Budrich UniPress, 2013), http://dx.doi.org/10.3224/86388043; C. Ebner, Lukas Graf, and R. Nikolai, “New Institutional Linkages between Dual Vocational Training and Higher Education. A Comparative Analysis of Germany, Austria, and Switzerland,” in *Integration and Inequality in Educational Institutions*, ed. Michael Windzio (Dordrecht: Springer, 2013), 281-298.

[28] See L. Graf, “Besser verzahnt: Berufs- und Hochschulbildung in Österreich und der Schweiz,” in *WZBrief Bildung* 24 (March 2013), http://orbilu.uni.lu/handle/10993/5917.

About this Publication

Author: Lukas Graf

Published: December 1, 2014

Topics: Educating the Future Workforce

Type: Transatlantic Perspectives

Program: Business &

Economics Program, **Foreign & Domestic Policy Program**

Sponsors

Robert Bosch Stiftung