

The initial vocational training in post-secondary education

Meeting the 50% post-secondary graduation target while promoting employability

To meet the growing need for highly skilled workers, OECD countries rely increasingly on their educational systems. This is a major challenge, particularly in France, where a target was set in 2005, according to which 50% of all young people in the relevant age bracket should have a post-secondary diploma. This goal can be achieved by focusing on the rate of success among students particularly at the level of the university licence degree. The success rates are already high for the *baccalauréat*, the final exam of upper secondary education. The reform of vocational education has increased the number of high-school vocational training graduates, but few of them pursue their studies to the post-secondary

level and their drop-out rate is still high. Higher education establishments now have a dual objective: to raise the percentage of post-secondary graduates and to enhance those graduates' employability. This issue of *La Note d'analyse* focuses on how this can be remedied by developing vocational education and training, particularly in universities. Although the proposals contained herein focus on universities, they can apply to all post-secondary establishments. They aim at developing the provision of vocational training while streamlining it and adjusting it to the pace and methods of academic disciplines, in order to promote the development of vocational programmes in these disciplines. ■

PROPOSALS

- 1 Expand the provision of vocational training, particularly in universities and seek to limit or reduce the number of specialities in certain fields.
- 2 Bring universities closer to vocational training bodies in enlarging *CCREFP* membership to university presidents and *CNFPTLV* membership to the Conference of University Presidents (*CPU*)^[1].
- 3 Allow universities to create national vocational diplomas on their own initiative, upon the agreement of the ministry and within the framework of the establishment's contract signed with the State.
- 4 Develop apprenticeships in universities' academic programmes: modulate internships and company work periods during the apprenticeship contract; allow students to spend most of their time (up to 80%) with the firm during the last year of the apprenticeship; grant an "apprenticeship period" label for internships of less than two months if they are paid, and include them in "full-time equivalent" in calculating the apprenticeship threshold.
- 5 Depending on the relevance to curriculum, allow student jobs (students who combine a job with their studies, summer jobs, etc.) to be taken into account for the accreditation of diplomas, particularly as internships.

[1] *CCREFP*: Regional Committees to Coordinate Employment and Vocational Training; *CNFPTLV*: National Council for Lifelong Vocational Training; *CPU*: Conference of University Presidents.

➤ **THE CHALLENGES** The French guidance and planning Law for the future of schools⁽²⁾ was adopted in 2005 with two objectives: 1) to raise the post-secondary diploma rate to 50% of an age group; and 2) to reaffirm the commitment of having 80% of an age group completing the *baccalauréat* (upper secondary school diploma exam). These national objectives correspond to the European initiatives – the Lisbon Process, which began in 2000 and focused on growth and employment, the Sorbonne Process (1998), and the Bologna Process (1999) – which also have the specific targets to enhance young people' employability and job prospects. These initiatives were supplemented in 2009 by the European Strategic Framework for Cooperation in the Area of Education and Training (“Education and Training 2020”).

In France, after a solid growth in the number of post-secondary students until the end of the 1990s, the threshold of 42% of graduates was reached among students completing their studies⁽³⁾, a proportion that has risen slightly in recent years. At a time where unemployment is, on average, twice as high among young people than among the total working-age population, the 50% post-secondary graduation rate must be considered with regards to their future employability. The government's challenge is to **increase the proportion of young post-secondary graduates within a relevant age group, while also enhancing their prospects for employment**. This is also a challenge for universities, which, having become autonomous, now have the additional mission of enhancing students' employability. And, finally, without trying to make automatic matches or undermining academic standards, the challenge is to meet demand by business for overall and vocational skills.

➤ VOCATIONAL TRAINING HAS EXPANDED AMIDST A SURGE IN THE STUDENT POPULATION AND HIGHER YOUTH UNEMPLOYMENT

Grasping trends in vocational trainings in France first requires delimiting their scope. To reflect their great diversity, a broad definition has been used for this *Note d'analyse*. It includes all vocational or professional training programmes, whether short (two years, for example, for advanced technicians [science/technology/healthcare] and technical universities - *IUT*) or long ones, such as healthcare training programmes.

Various non-exclusive criteria (content, training procedures, admission process, structures, disciplines, targeted professions, etc.) characterise vocational training programmes and thus reflect their diversity⁽⁴⁾, e.g.:

- ▶ training programmes whose vocational purpose is identifiable by the very name of the training establishment (i.e., *instituts universitaires de technologie*, advanced technician section, engineering schools, management schools, etc.) or by the title of the diploma, which refers explicitly to a vocational area (vocational *licence*, vocational master's degree, etc.). These are also training programmes easily recognisable by the profession(s) for which they provide training, healthcare professions in particular;
- ▶ vocational training programmes are often characterised by their admission process, which is organised in most cases through a selection based on a submission dossier but which can also be very restrictive (*numerous clausus*), for example in some healthcare programmes. Moreover, every vocational training promotion records fewer students than academic one's;
- ▶ vocational training programmes often involve a set curriculum. Some are only accessible *via* a preparatory step. This is the case for engineering training programmes, for which attending preparatory classes before entering the *grandes écoles* (CPGE) are often a prerequisite;
- ▶ finally, training programmes are also characterised by their relevant links with the vocational field, particularly through the design of the training offered, the teaching methods (internships, alternating work-study cycles,

[2] Law n° 2005-380, 23 April 2005.

[3] “L'état de l'enseignement supérieur et de la recherche”, n° 4, MESR, 2010 Edition.

[4] Rose J. (2008), “La professionnalisation des études supérieures : tendances, acteurs et formes concrètes”, in *Les chemins de la formation vers l'emploi : 1^{re} biennale Formation-emploi-travail, Relief*, n° 35, p. 43-58.

accreditation for work experience, continuing education, etc.), and the use of professionals as instructors. This link can also be measured *ex post* by the success rate of the graduates in finding jobs and by the good matching of the diploma to the position occupied⁽⁵⁾.

The number of post-secondary students has risen seven-fold in 50 years

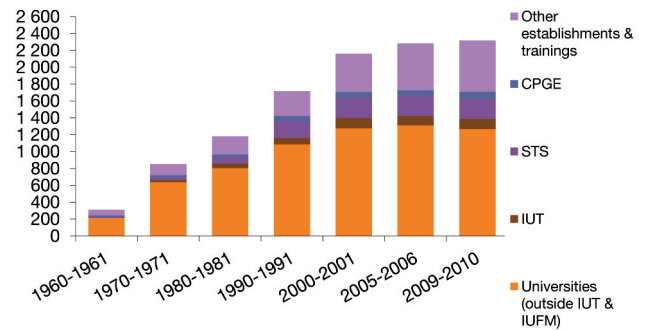
The number of students has risen sharply in France over the last 50 years (chart 1). There were more than 2.3 million students at the start of the 2009-2010 academic year, i.e. seven times more than in the early 1960s (when the figure was slightly higher than 300,000). However, the increase has not been linear. The number of post-secondary students rose by more than 500,000 by the early 1990s, mainly at universities. While increasing in numbers, students also come from more diverse backgrounds. This increase occurred even as the French population aged from 15 to 24 years fell by more than 700,000 from 1975 to 2008 and its share in the total population shrank from 38.6% to 28.5%.

Three main reasons explain the increase in the number of students:

- ▶ a strong movement to expand the school enrolment, first of all in secondary education. Two thirds of young people now pass the baccalauréat (upper secondary final exam). This reflects the increased value that families place on acquiring education and skills to cope with high unemployment rates. Post-secondary training programmes were considered as a way to enhance young people's employability⁽⁶⁾ and expanded successfully in the 1970s;
- ▶ the role of the public authorities to promote this evolution in order to improve economic performance. To this end, the objective of "raising to 80% within 10 years the number of students who complete secondary education"⁽⁷⁾ was adopted;
- ▶ the profiles sought by companies for new hires which have shifted towards post-secondary graduates⁽⁸⁾. This trend has been observed in most OECD countries. For example, a recent US study highlights that the percentage of jobs requiring post-secondary education rose

from 28% in 1973 to 59% in 2007 and is expected to reach 63% in 2018⁽⁹⁾.

Chart 1
Number of higher education students in France, 1960-2010 (in thousands)



Source: "Repères et références statistiques", 2010 Edition, MEN and MESR.

Although universities host the majority of students, their share in the post-secondary education fell by nearly 10 per cent compared to 1960

In 2010, 60% of post-secondary students attended university (including *IUT*). Despite this sharp growth, this share of post-secondary students has shrunk by almost 10 percentage points since the 1960s (69%). This trend reflects the expansion and success of non-university vocational training programmes, either short ones such as those provided by advanced technicians departments (10%), or long term ones such as those provided by the *grandes écoles* and other educational establishments (30%).

Since the beginning of the 2000s, the student population has stabilised on average. However, this should not mask a structural trend : France has designed a long-term strategy aimed at opening up higher education to an increased number of students. This strategy is being reinforced by the objectives for increasing the number of post-secondary graduates.

[5] For example, Giret J.-F. and Moullet S. [2008], "Une analyse de la professionnalisation des formations de l'enseignement supérieur à partir de l'insertion de leurs diplômés", *Net.Doc*, n° 35, Céreq, February.

[6] Dayan J.-L. and Harfi M. [2011], "Emploi et chômage des jeunes : un regard comparatif et rétrospectif", *La Note d'analyse*, n° 224, Centre d'analyse stratégique, May.

[7] Objective introduced in the report by Prost A. [1983], "Les lycées et leurs études au seuil du XX^e siècle". It was in part endorsed in the plan worked out in 1987 by René Monory, the French Education Ministry, and reaffirmed by the general Law governing Education of 10 July 1989 and by the orientation and programming Law for the future of schools of 23 April 2005.

[8] Dayan J.-L. and Harfi M. [2011], *op. cit.*

[9] Carnevale, A., Smith N. and Strohl J. [2010], *Projections of Jobs and Education Requirements through 2018*, Center on Education and Workforce.

Vocational training programmes have developed in various forms

Non-university post-secondary training programmes delivered by the public and private sectors can, on the whole, be considered as vocational. They are provided by public and private *grandes écoles*, but also by private training institutions issuing two-year degrees. Ministries, apart from those in charge of higher education, have also promoted the emergence and development of training offers to meet recruiting needs, particularly for healthcare and social welfare, culture, agriculture, etc. A specific offer has been developed to meet the needs of the public sector (the State, public hospitals and local institutions).

The dichotomy between *grandes écoles* and universities is one of the hallmarks of the French system of higher education. It has long led to a “division of labour” between vocational training, which has developed mainly outside the universities, and academic disciplines, which are provided only by universities. However, while these training programmes are considered as general education, they are nonetheless the main source of recruitment for the public sector, particularly in education, higher education and research⁽¹⁰⁾.

The development of vocational training programmes in universities is not new. University trainings used to be designed on a long-term basis and to prepare students for identified professions, the access to which being often controlled or contingent. This was the case for jurists (attorneys in particular), doctors and pharmacists. When universities became legally required to accept all high-school graduates who wished to pursue their studies in post-secondary education, vocational training developed, initially within entities that, in many cases, had an exceptional status. This is how, as far back as the early 1960s, technical universities, the IUT (*institut universitaire de technologie*), were established, with derogating regulations, offering shorter vocational training programmes (two to three years with specialities). Other training institutions delivering five-year diplomas were then developed within universities, such as national engineering schools (1970-1975), whose admissions practices closely resembled those of the non-university *grandes écoles*. University vocational training was still an exception (e.g., with the creation of *Université de technologie de Compiègne* [UTC] in 1972).

The development of vocational education in universities has also resulted in a strong trend towards creating or transforming diplomas. New, non-selective disciplines were set up starting from 1973, particularly for applied foreign languages (*Langues étrangères appliquées*). Also in 1973, the master's programme in “IT methods applied to business management” (*MIAGE*) was set up, followed, in 1974, by the diploma in specialised advanced studies (*DESS*), and, in 1975, by the master's in sciences and techniques (*MST*) and the master's in management (*MSG*).

The downturn of the labour market in the early 1980s and the increase in post-secondary education admissions revived the debate on the employability of young people and on training methods. The commitment to make education more vocational was made through the adoption of the Law of 26 January 1984, which reaffirmed higher education's contribution “to implementing an employment policy that takes into account current needs and their foreseeable trends”, and the organisation of post-secondary education “in conjunction with business organizations: their representatives take part in drawing up curriculum within the competent bodies; practitioners take part in instruction; training programmes can be arranged within companies...”. These shifts resulted in the creation of the diploma of scientific and technical studies (*DEUST*, 1984), the Magistère and technological research diploma (*DRT*) in 1985, teacher-training institutes in 1989 (attached to universities since 2008), and the 1994 creation of two new technical universities (*Université de Technologie de Troyes* and *Université de Belfort-Montbéliard*⁽¹¹⁾).

This trend continued during the 1990s with the establishment of vocational-oriented university institutes (*instituts universitaires professionnalisés*) in 1991, the vocational university studies diploma (*DEUP*) in 1992, the national specialised technology diploma (*DNTS*) in 1994, the vocational licence diploma in 1999-2000, and the vocational master's degree in 2002. The latter resulted mainly from the transformation of the *DESS*, which had existed since 1974.



[10] See Appendix 1, The degrees conferred in French universities and other institutions of higher education, certified by the French government.

[11] Borne from the merger of two post-secondary establishments, the *École nationale d'ingénieurs de Belfort* [1962] and the *Institut polytechnique de Sevenans* [a satellite of UTC set up in Sevenans in 1985].

Several factors have promoted the development of vocational education

The student demographics and the increase in youth unemployment are not the only reasons for the expansion of vocational training, also explained by four other factors:

- ▶ increased competition between universities and other establishments on segments of the post-secondary education market. The development of university vocational training has probably helped mitigate its shrinking share in the total number of hosted students;
- ▶ the creation of a European Higher Education Area and the implementation of the conclusions of the Sorbonne Declaration and the Bologna Process (1999). Indeed, in addition to harmonising educational years into *Licence-Master's-Doctorate* cycles (see Appendix 1), the conclusions of signatory countries make reference to increasing the share of vocational education. They outline the obligation for education being targeted to address the features of the labour market. Similarly, while mutual diploma recognition is likely to promote European mobility of young graduates, its purpose is also to make the EU labour market more fluid⁽¹²⁾;
- ▶ the shift in demand for skills from companies and public administrations towards post-secondary graduates⁽¹³⁾;
- ▶ the development of alternative vocational programmes, in particular apprenticeship. In 2010, there were more than 424,000 apprentices, with a quarter of them (103,075) preparing post-secondary diplomas. Apprenticeships had long been linked to secondary education (e.g., the *certificat d'aptitude professionnelle* and the *brevet d'études professionnelles*) and dedicated to young people aged from 16 to 21 years. In 1987 they were extended to all post-secondary diplomas and up to 26 years old. This change was adopted so quickly that between 1995 and 2009 post-secondary education made the greatest contribution (+81,000) to the rapid growth in apprentices (+131,000). Universities, however, accounted for only a little more than one quarter (+23,000) of the expansion of apprenticeship in post-secondary education, almost equal to other post-secondary establishments excluding science/technology/healthcare (+22,000) and far behind advanced

technicians departments (+36,000). Within universities, offering apprenticeships, vocational licences and master's degrees are predominant, with about 10,000 and 8000 apprentices respectively. Despite the expansion in apprenticeship, it still accounts for only 6.9% of vocational training programmes and 4.5% of total post-secondary students.

While they are not addressed by this *Note d'analyse*, continuing vocational training and recognition of informal learning are vectors through which vocational programmes have gained more weight in post-secondary education. In 2009, 448,000 persons took further vocational training at a post-secondary establishment⁽¹⁴⁾, three quarters of whom at a university. Nine percent of university diplomas (59,000) were issued for further vocational training (56% of which were national diplomas and 44% university diplomas). However, the development of further vocational training must play a greater role in a "quality approach", including at universities. In addition to these numbers, diplomas are awarded for accreditation of professional experience. There were 4055 such diplomas in 2009, 90% of which were issued by universities⁽¹⁵⁾. Although it has risen by half in the last decade, the total number of graduates who are already in the labour force remains below the European average⁽¹⁶⁾.

THE SCOPE OF THE VOCATIONAL TRAINING PROGRAMMES IN FRANCE, 1996-2010

In 2010 two thirds of post-secondary students registered in a vocational programme

Two indicators illustrate the impact of this development of post-secondary training programmes.

First, an estimate of the number of post-secondary vocational diplomas. Taking only the diplomas registered (or pending approval in the case of law accreditations) in the National Directory of Professional Accreditations (*RNCP*) of the National Commission for Professional Accreditation (*CNCP*), the number of initial post-secondary vocational training diplomas reached 3500 in October 2011, two thirds of which were issued by universities (2370 diplo-

[12] Bourdoncle R. and Lessard C. [2002], "Qu'est-ce qu'une formation professionnelle universitaire ?", *Revue française de pédagogie*, n° 139, April-May-June, p. 131-154.

[13] Dayan J.-L. and Harfi M. [2011], *op. cit.*

[14] "Repères et références statistiques", 2011 Edition, Ministère de l'Éducation nationale (MEN) and Ministère de l'Enseignement supérieur et de la Recherche (MESR).

[15] "La validation des acquis dans les établissements d'enseignement supérieur en 2009", Information note, MEN-DEPP, January 2011.

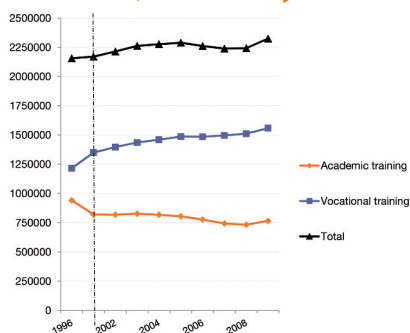
[16] Dayan J.-L. [2009], "Où en est la formation différée ?", *La Note d'analyse*, n° 160, Centre d'analyse stratégique, December.

mas, excluding engineering diplomas), or 68% of the total. These figures underestimate the total number of post-secondary vocational diplomas, as not all of them have been submitted for registration so far.

Based on the Habili database⁽¹⁷⁾ the total number of university diplomas can be estimated in 2010 at 11,514, 43% of which (4920) are vocational diplomas. A breakdown by level of training shows how extensive and how long-standing the emergence of vocational education has been at universities. Of the 4920 vocational diplomas, 2104, or two out of five, are three-year vocational *licences*. Their recent creation (2000) shows how strong the development of vocational programmes has been at universities over the past ten years. The other diplomas are mainly vocational master's degrees (2800). They are recent (2002), but most of them result from the transformation of *DESS* diplomas.

The second indicator is based on student registration statistics broken down by diploma and using SISE⁽¹⁸⁾ as a source. The development of vocational programmes has had a clear impact on the structure of post-secondary education. For example, with 1,558,425 students in 2010, vocational training accounted for two thirds of post-secondary students (67.1%, with general disciplines accounting for more than 760,000, chart 2). The number of students in vocational training programmes has risen by almost 11 percentage points since 1996 (56.4%). Half of this increase (+340,000 students) was at the expense of academic disciplines (which lost 176,000 students), while the other half corresponds to the increase in students registered in vocational training programmes.

Chart 2
Breakdown in post-secondary training programmes in France (students in 1996, 2001-2010)

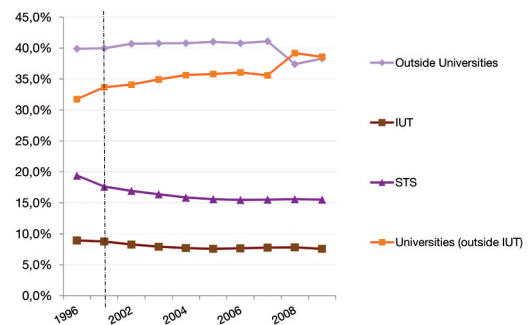


Sources: 2001-2010, MESR-DGESIP/DGRI-SIES; 1996-1997, MESR-DGESIP/DGRI-SIES; SISE. Calculations: Centre d'analyse stratégique.

Almost half of the students in vocational training study at universities

Of the 1,558,425 students registered in post-secondary vocational training programmes in 2010, almost half were at universities, including IUT (46.2%). More than 610,000 were hosted by non-technical universities (38.6%, chart 3).

Chart 3
Share of universities in vocational training in France*



* Teacher-training students have been included in statistics for universities since the 2008-2009 academic year.

Sources: 2001-2010, MESR-DGESIP/DGRI-SIES; 1996-1997.

With 597,000 students, the other institutions (excluding science/technology/healthcare) account for 3.3% (or the equivalent of non-technical universities). Their share in vocational training has shrunk by 1.6 percentage point (38.3% in 2010 vs. 39.9% in 1996). With a weak growth in student numbers (+6000 students during the period), the proportion of science/technology/healthcare students has shrunk by almost 4 percentage points, from 19.4% in 1996 to 15.5% in 2010.

While the development of vocational programmes was very intense from 1996 to 2010 (chart 4), not all university components have contributed to it. Compared to 1996, the share of universities, including *IUT*, in vocational training has risen by 5.5 points (40.7% in 1996). Two thirds of this increase is due to internal university programmes, and one third to the number of students from teacher-training institutes, which have been included in university statistics since the 2008-2009 academic year. When excluding teacher-training institutes, there was a dip in vocational training students late in the period.

Although the student population in *IUT* has grown (+10,000 students), its share in the total post-secondary

[17] Source: Habili database, MESR.

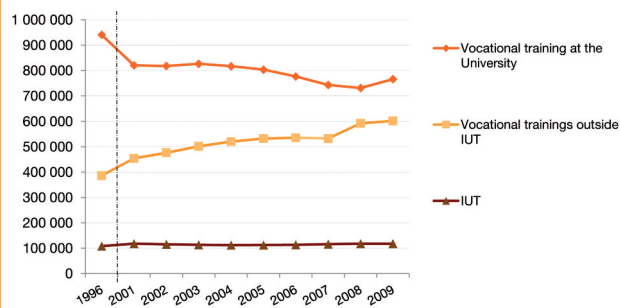
[18] Système d'information sur le suivi de l'étudiant.

population has shrunk by 1.3 point (7.6% in 2010 vs. 8.9% in 1996). While technical universities (IUT) are meant to provide immediate employability, almost 80% of their graduates remain in school⁽¹⁹⁾.

The breakdown in training offers in *Licence*-Master's-Doctorate cycles (*LMD*), has thus promoted a dual trend – the development of more vocationally-oriented programmes in universities and an upgrading of training programmes, with more students at the Licence level and the second year of the Master's degree (*M2*).

Chart 4

Breakdown in university training programmes



Sources: 2001-2010, MESR-DGESIP/DGRI-SIES; 1996-1997, MESR

Some disciplines and specialities have contributed more to developing vocational programmes in universities

A closer look at these trends in the increased number of student in vocational training programmes shows wide disparities from one category of training to another.

University diplomas: these are mainly degrees issued by and on behalf of universities but are not national diplomas. While holders of university diplomas have risen (82,835 in 2010 vs. 71,278 in 1996), their share in university programmes has shrunk by 2 percentage points (12% at the end of the period).

The number of students preparing national vocational *licence* diplomas (excluding science/technology/healthcare and *IUT*, see above) tripled between 2001 (15,242) and 2010 (51,764), and their share in university vocational training programmes doubled during this same period (7% in 2010 vs. 3% in 2001). This increase is due to the

success of vocational licence programmes, which currently have more than 40,000 students.

Regarding Master-level diplomas, the sharp increase in the student population in the early 2000s, due mainly to the development of vocational Master's degrees, continued until the mid-2000s, reaching almost 20% of students in vocational training programmes.

Engineering training programmes in universities now account for one quarter of total engineering students and rose sharply between 1996 and 2010 (+50%). This is due not only to the attractiveness among students of these selective university disciplines, but also much to universities' increased physical and training capacities. However, these disciplines still account for a small proportion of university vocational training students (3% in 2010).

In addition to training structures and diplomas, the development and availability of vocational programmes in universities has varied from one speciality to another. While more than two thirds (71.4%) of students at non-technical academic universities are in three specialities – “Letters and Arts”, “Social sciences, Business and Law” and “Sciences” – they account for only one half of students in vocational programmes (48.3%).

All in all, the development of vocational programmes in post-secondary education results from a dual trend: diversification and transformation of diplomas and training structures on the one hand, and the increase in student admissions on the other hand. On the whole, the expansion in university vocational training programmes has not affected the number of students at non-university vocational institutions (including science/technology/healthcare). This broad statement varies from one region to another, depending on each region's initial structure of post-secondary training⁽²⁰⁾, the economic dynamics of territories⁽²¹⁾ and the required skills, and their degree of “dependence” on student mobility⁽²²⁾. From 1996 to 2010, half of the expansion in university vocational training programmes were at the expense of academic disciplines. The other half came from their expanded offering of post-secondary vocational training. Late in that period there was a decrease in university vocational training programmes, with the increase in students over the last two years due mainly to “external growth”, i.e., the inclusion of teacher-training institutes in university statistics.

[19] “Septième enquête nationale sur le devenir des DUT”, association des directeurs d'IUT et Direction générale pour l'enseignement supérieur et l'insertion professionnelle.
[20] See, in particular “Atlas régional 2009-2010” (2011), SIES, DGESIP, MESR, January.
[21] Bel M., Gayraud L. and Simon G. (2005), “Professionnalisation de l'enseignement supérieur et territoires”, final report, MEN-DATAR.
[22] Lemaire S. and Papon S. (2009), “La mobilité étudiante”, Information note 09-02, DEPP, MESR, February. See also its appendix on: www.strategie.gouv.fr/content/lenseignement-professionnel-initial-dans-le-superieur-note-danalyse-260-janvier-2012

UNIVERSITY VOCATIONAL TRAINING PROGRAMMES: AN ANSWER TO THE DUAL OBJECTIVE OF A HIGHER GRADUATION RATE AND AN ENHANCED EMPLOYABILITY

Post-secondary vocational training programmes are more expensive than general educational programmes, but worth being developed as they offer better employability. However, this should not hinder efforts to streamline the offering of training while maintaining performance standards (objective 1). Meanwhile, growth in post-secondary vocational students at the rate it has grown over the past 10 years will not be sufficient to meet the post-secondary graduate target, while enhancing their employability.

In addition to the expansion in non-university vocational training programmes, it will also be necessary to promote more vocational approaches to academic university programmes (objective 2).

Objective 1: Further develop and streamline the offer of vocational training

- Promote employment transitions and professional mobility

Expansion in vocational training programmes must not lead to a plethora of specialities. On the one hand, vocational training programmes are more expensive than trainings in general disciplines, particularly because of their smaller promotions. For example in 2010, a little more than 40,000 students were registered in 2000 accredited vocational licences programmes, i.e. an average of 20 students per promotion. These vocational licence diplomas account for 20% of total university-issued diplomas (general and vocational training), whereas they account for just 2.8% of students. Moreover, few students come from academic disciplines. Only 5% of students registered for the 2003-2004 academic year had obtained a *DEUG* degree the previous year, vs. 49% for holders of a university technology diploma or advanced technician degree, and 39% who were not at school the previous year⁽²³⁾. Moreover, while intensely specialised training programmes better meet the needs of the labour market, they do not necessarily lead to a reorientation of graduates and can, in fact, restrict their professional mobility – this at a time when employment transitions and profes-

sional mobility may become a more pressing issue in a near future.

However, whether to limit or even reduce the number of specialities, or not, depends on the area of training. The recent broadening of the competencies of the National Commission on Professional Accreditation (it gives an advise on the opportunity of creating vocational diplomas) could make a contribution here. This analysis will also have to be backed by assessments of the performances of training programmes with regard for graduates' employability. With this in mind, the second national survey on employability of university graduates, published in 2011, provides some initial answers, even though it currently deals only with holders of university technology diplomas or vocational licences or master's degrees. As of 1 December 2010, 30 months after obtaining their diploma in 2008, 91% of master's degree holders that had entered the labour market had a job, which is almost identical to holders of university technology diplomas (91%) and vocational licences (92%). Moreover, compared to 2007 graduates, the rate of graduates who had found a job was the same, despite a challenging job market. So these training programmes enhance employability, albeit to varying degrees, depending on the disciplines.

PROPOSAL 1

Expand the provision of vocational training, particularly in universities and seek to limit or to reduce the number of specialities in certain fields.

- Step up coordination of post-secondary vocational training programmes

A recent study conducted by the Centre d'analyse stratégique stressed the need to improve regional coordination of the delivery of two- and three-year post-secondary vocational training programmes⁽²⁴⁾. Two initiatives could help doing so:

- ▶ given the share of universities in post-secondary vocational training, it would be useful to closely involve the University Presidents in the work done by the local committees in charge of coordinating employment and vocational training, or even to appoint them as mem-



[23] "La réussite en Licence professionnelle", Information note, MEN-DEPP, April 2007.

[24] Lainé F. and Lebreton E. (2011), "Construire une carte régionale des formations : outils, méthodes et enjeux pour la formation initiale", Methodological support document, Centre d'analyse stratégique, July.

bers. The provision of university training programmes would then be rather based on analysis, and especially future prospects of employment and outlooks established by professions at the national and regional levels. This would also promote coordination among all vocational training actors, including universities. On the national level, the Conference of University Presidents (CPU) could be admitted as a member of the National Council for Lifelong Vocational Training;

- ▶ coordination and streamlining of the vocational trainings on the *licence* level could also be enhanced by shoring up ties between upper secondary schools and universities. One way would consist in merging science/technology/healthcare sections of volunteer universities. Such a merger would occur only after an in-depth assessment and be based on agreements with upper secondary schools whose proportion of science/technology/healthcare students exceeds a certain threshold.

PROPOSAL 2

Bring universities closer to vocational training bodies in enlarging CCREFP membership to university presidents and CNFPTLV membership to the Conference of University Presidents (CPU).

- To make universities more responsive to shifts in the labour market, with a diploma-accreditation process more flexible

Private establishments' responsiveness in adjusting their offering of training (in terms of both content and diplomas) to shifts in the labour market is in part due to the fact that their diploma-creating or -elimination process is far less restrictive than in the public sector. To mitigate this restriction for universities, an *ex-ante* accreditation process could be promoted that allowed universities, on their own initiative, to create national diplomas, subject to the approval by the ministry in charge of Higher Education and Research, upon the advice given by the National Commission on Professional Accreditation. An *ex-post* assessment would be done on the basis of measurable criteria within the framework of the establishment's contract signed with the State.

This authorisation to create national diplomas would involve vocational training programmes financed by the university's own resources or in partnership with other

higher education establishments. The *ex-post* confirmation of diplomas after assessment would open the door to additional financing from the State.

Furthermore, vocational training programmes often call on professionals from companies to provide instruction. For the universities, adequate remuneration is necessary to keep this an attractive option. For companies, this participation in training should be recognised and valued, particularly in assessing their "trainer" employees.

PROPOSAL 3

Allow universities to create national vocational diplomas on their own initiative, upon the agreement of the ministry and within the framework of the establishment's contract signed with the State.

Objective 2: Adjust the pace and methods of training in academic disciplines to promote a more vocational approach in these disciplines

Initiatives have already been taken with the plan to promote successful completion of the licence diploma, including five additional weekly hours of educational supervision per student; supervising teachers, tutoring, reworked content of the licence diploma with the inclusion of a first year of basics that is more multi-disciplinary, development of internships, etc. (see in particular the *Licence* ministerial order of 1 August 2011). In addition to promoting successful studies, these actions aim to develop cross-disciplinary skills of students that are then useful⁽²⁵⁾.

Without compromising academic standards, such initiatives should be stepped up, so that general disciplines would be willing to introduce methods borrowed from the vocational sector, apprenticeship in particular, that are more compatible with the expectations of young people, including those who work and study at the same time.

- Developing apprenticeship in post-secondary education, including in academic disciplines

Apprenticeship in academic disciplines is almost non-existent. With 984 students in 2009, academic disciplines account for less than 1% (103,075) of post-secondary apprentices and fewer than 0.15% of students in academic disciplines. And yet, there is great potential for deve-



[25] The link between universities and the labour market was a major issue raised in 2006, *De l'Université à l'emploi*, report of the Commission chaired by Patrick Hetzel.

loping apprenticeships in academic disciplines, given their proportion of total university students (50%). However, apprenticeship is characterised by alternating periods of training and work within companies, as training has to be administered during working hours⁽²⁶⁾, which is less compatible with academic disciplines. Three measures could be taken to expand apprenticeship in academic disciplines:

- ▶ for diplomas lasting more than one year, modulate training and work periods during the apprenticeship contract. This multi-year alternating cycle offers several advantages. For students, it increases their chances of success. For companies, it offers the option of scheduling work times that amount to more than 50%;
- ▶ to give students, under certain conditions, the option of validating the apprenticeship during the last year of a general education diploma with an increased amount of time spent within the company (up to 80%). This would offer three advantages: to maintain the link with training, one of the characteristics of apprenticeships ; to allow more young people to benefit from the apprenticeship experience; and to use the dual status to make it easier for students on scholarships to receive both their scholarship funds and their apprenticeship wages. Professional sectors would have an incentive to increase the annual flow of students coming from general disciplines. Apprentice remuneration would be increased as the apprentice would be spending more time at the company;
- ▶ an “apprenticeship period” label would be granted to internships of less than two months if paid as internships. This label would include “full-time equivalent” internship, with regard to the benchmark duration, in calculating the apprentice threshold but within a certain threshold (one percentage point of the apprenticeship threshold, for example).

PROPOSAL 4

Develop apprenticeships in universities' academic programmes:

- **modulate internships and company work periods during the apprenticeship contract; allow students to spend most of their time (up to 80%) with the firm during the last year of the apprenticeship;**

- **grant an “apprenticeship period” label for internships of less than two months if they are paid;**
- **include them in “full-time equivalent” in calculating the apprenticeship threshold.**
 - **Validating the working periods of students**

Working during academic years is one of the indicators of transitioning from training to a job. On average, 32% of young people in OECD countries hold jobs during their academic years (including training programmes in alternating cycles and part-time work)⁽²⁷⁾. In France, while the practice of work-study has doubled in 20 years among 15-29-year-old students, the percentage is still only 15%, with wide disparities based on age (8% of those under 20, and one out of four between 20 and 24). Moreover, only one third of jobs occupied by post-secondary students are connected with their studies (i.e., apprenticeships and internships)⁽²⁸⁾.

Students who work during the academic years (excluding apprenticeships and internships embedded in their studies) or have summer jobs should get greater recognition from these periods of work. Such periods could have an official recognition and count towards earning a diploma, and be subject to the approval from the establishment regarding relevance to curriculum. This could even include a research paper, as it is the case for internships.

PROPOSAL 5

Depending on the relevance to the curriculum, allow student jobs (students who combine a job with their studies, summer jobs, etc.) to be taken into account for the accreditation of diplomas, particularly as internships.

There are other ways for adapting education programmes to working periods during the academic year of the student and thus promote their success: duplicate the main academic subject courses in universities, or even provide more evening classes, as the *Conservatoire national des arts et métiers* does for example; develop summer sessions which would mean moving from two to three training sessions annually. Progress made in digitalisation and electronic storage and the future development of digital libraries will promote remote access to documentary resources in the future.

[26] Art. L6211-2 of the French Labour Code.

[27] OECD (2010), “Des débuts qui comptent ? Des emplois pour les jeunes”.

[28] Coudin É. and Tavan C. (2008), “Deux étudiants du supérieur sur dix ont un emploi: le premier en lien avec ses études et l'autre pas”, *INSEE première*, July.

CONCLUSION In its analysis of youth employment and unemployment, the *Centre d'analyse stratégique* focused on how to improve public policies concerning the labour market⁽²⁹⁾. This *Note d'analyse*, which addresses the educational system, assesses trends in initial post-secondary vocational training programmes. The proposals suggested aim at promoting the development of these training programmes, particularly in universities, while stepping up assessment of their performance. In 2012, the *Centre d'analyse stratégique* will undertake a forward-looking study on universities by 2025, which will encompass general educational programmes.



Mohamed Harfi,
Labour and Employment department



[29] Dayan J.-L. and Harfi M. [2011], *op. cit.*

APPENDIX

The degrees conferred in French universities and other institutions of higher education are certified by the French government.

YEARS OF STUDY	LEVELS	THE LMD SYSTEM		
		Universities	Grandes Écoles Schools of business Schools of engineering	Schools of art Schools of architecture Other institutions (lycées, specialized schools)
9	18 semesters (+ 9 years)	<ul style="list-style-type: none"> State diploma of doctor of medicine 		
DOCTORAL DEPARTMENTS				
8	DOCTORATE 16 semesters (+ 8 years)	<ul style="list-style-type: none"> Doctorate / PhD 		
7				
6	12 semesters (+ 6 years)	<ul style="list-style-type: none"> State diploma of doctor of dental surgery State diploma of doctor of pharmacy 	<ul style="list-style-type: none"> Mastère spécialisé (MS) Master of business administration (MBA) 	<ul style="list-style-type: none"> HMONP (professional credential for independent practice of architecture)
5	MASTER 10 semesters (+ 5 years) 300 ECTS	<ul style="list-style-type: none"> Research master Professional master Engineering degree 	<ul style="list-style-type: none"> Engineering degree Master of Science - MSc Business school diplomas Degrees of the <i>Grandes Ecoles</i> 	<ul style="list-style-type: none"> Art school diploma (DNSEP) State architect's diploma Diplomas of specialized schools (health, social work, tourism, etc.)
4				
3	LICENCE 6 semesters (+ 3 years) 180 ECTS	<ul style="list-style-type: none"> Licence (bachelor) Licence professionnelle (professional bachelor) 		<ul style="list-style-type: none"> Art school diplomas (DNAT - DNAP) Architecture diploma
2	4 semesters (+ 2 years)	<ul style="list-style-type: none"> University technology diploma (DUT) 	<ul style="list-style-type: none"> Admission to the first year of a <i>Grande École</i> program Preparation for admission to <i>Grandes Écoles</i> (CPGE) 	<ul style="list-style-type: none"> Art school diploma (DMA) Postsecondary technical certificate (BTS)
1				

Completion of secondary school + *baccalauréat* or equivalent

Source : <http://campusfrance.org/en/resource/degrees>

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Printer:
Centre d'analyse stratégique

Press office:
Jean-Michel Roullé,
Communication manager
01 42 75 61 37 / 06 46 55 38 38
jean-michel.roulle@strategie.gouv.fr



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