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**ESREA ACCESS NETWORK CONFERENCE**  
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**THE VOLUNTARY ENGAGEMENT OF ADULTS IN VOCATIONAL  
EDUCATION: MORE DIFFICULT OR MORE CONSTRAINED?**  
**The case of France**

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## **Introduction**

The access of adults to higher education has been significantly changed during the last decade in France. But the overall change also reflects different and sometimes contradictory tendencies. These new tendencies that are related to the labour market structure as well as to the manpower management of the firms:

- Modify the admission conditions of adults to vocational education,
- Deeply affect the professional and training trajectory of students that are effectively engaged in some vocational education.

The number of people that have changed firms or that have been unemployed have considerably increased. The professional mobility is less characterised by hierarchical ascension inside a single firm than by changing of firms or/and professional occupation. The mobility is also a «horizontal mobility» more and more often. We also have to point out some transformations of professional contents related to the more flexibility and to more direct contacts with “customer”.

Today, the vocational education appear to be a necessity for those that experience difficulties in their professional situation. Traditionally, the Conservatoire National des Arts et Métiers (Cnam)<sup>1</sup> vocation is devoted to social and professional ascending mobility. Today then, an increasing part of Cnam population is composed of students that are unemployed or in difficulties on the labour market: they have to change job or even professions.

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<sup>1</sup> The Conservatoire National des Arts et Métiers (Cnam) is a unique institution in the higher French education system. It is a great public establishment of higher vocational training and research. It is open to all adults who have entered working life, whatever their professional activity and their position (employed, unemployed, inactive) without any prerequisites (see appendix).

But, at the same time, the access to vocational education has become more and more complicated for the workers that are not personally concerned with professional difficulties.

Voluntary engagement in vocational education becomes more and more often a constraint and its positive effects are not guaranteed. The individuals are in a paradoxical situation: the access to the vocational education is both more difficult and more constrained.

First, we suggest that the adult access to higher education is more challenging today because of difficult working contents and because of harder selection at the higher education institutions. Second, we suggest that this access is deeply constrained by the professional goals and that the training results are strongly related to the professional situation and the trajectory of individuals.

## **Data**

Our data consists of some enquiries beside the Conservatoire National des Arts et Métiers (Cnam) students:

- Before inscription: about 3000 individuals were studied during the years 1997/1998. The idea was to identify the new tendencies of training demand (Pottier-Correia-Pieuchot, 1998),
- Those engaged before but who stopped at the 1998 re-opening: 2 500 individuals were questioned (Correia-Laporte-Pottier, 1999).
- All the 1<sup>st</sup> and 2<sup>nd</sup> level graduates in 1995 (In Paris and the regional centres): 1100 graduates whatever the training field (Berton, 1998, 1999, 2000).

## **I – A more difficult access and a more severe selection**

### *1.1. Some harder working contents: less available time, changing time schedules and working places for those that are employed*

The working conditions have become harder and less time availabilities are offered. We can observe an increase of the atypical working hours and flexible hours especially in the case of the new service activities (Bloch, 1998 ; Boisard-Fermanian, 1999).

Concerning the high level jobs, the enquiries show an increase of the effective working duration, more variable hours and longer working days (Fermanian, 1999).

At the same time, it becomes more and more difficult to anticipate the exact working time duration because of more intense and frequent contacts with customers or other public (Gollac, 1991).

Quarter part of the Cnam students, that stopped their studies, did it because of their vocational constraints or because of job changes (Correia-Laporte-Pottier, 1999).

### *1.2. A more severe selection of the students*

The Cnam audience changes. The Cnam maintains a relative specialisation regarding industry, but workers or technicians students do not influence the audience statistics (Germe-Pottier-

Pieuchot-Correia, 1995). The student body, for the most part, is now composed of A<sup>+</sup> 2 years vocational education level (high technicians). At the same time, the age average of the students has increased to around 30 : there is now a continuity between basic education and Cnam training but no longer between work experience and Cnam training.

*1.3. A training supply non-adapted to the new conditions of labour market*

If we compare the individuals who come to enquire about the studies with those who are really registered for Cnam or who leave the Cnam, we can observe that the Cnam appears not very well suited for (Pottier-Correia-Pieuchot,1998 ; Correia-Laporte-Pottier, 1999) :

- Young people in vocational integration,
- Holders of a diploma who are looking for a short specialised training,
- People who want to change job or occupation,
- People in difficult situation on the labour market
- People with high career progression

**II – A more obligatory access and some effects that are deeply related to the individual professional situation**

*2.1. Training is often considered as a mean for some professionals goals*

The lifelong learning seems to be an inevitable component of the work experience, as announced by the politics, but also as perceived by the individuals.

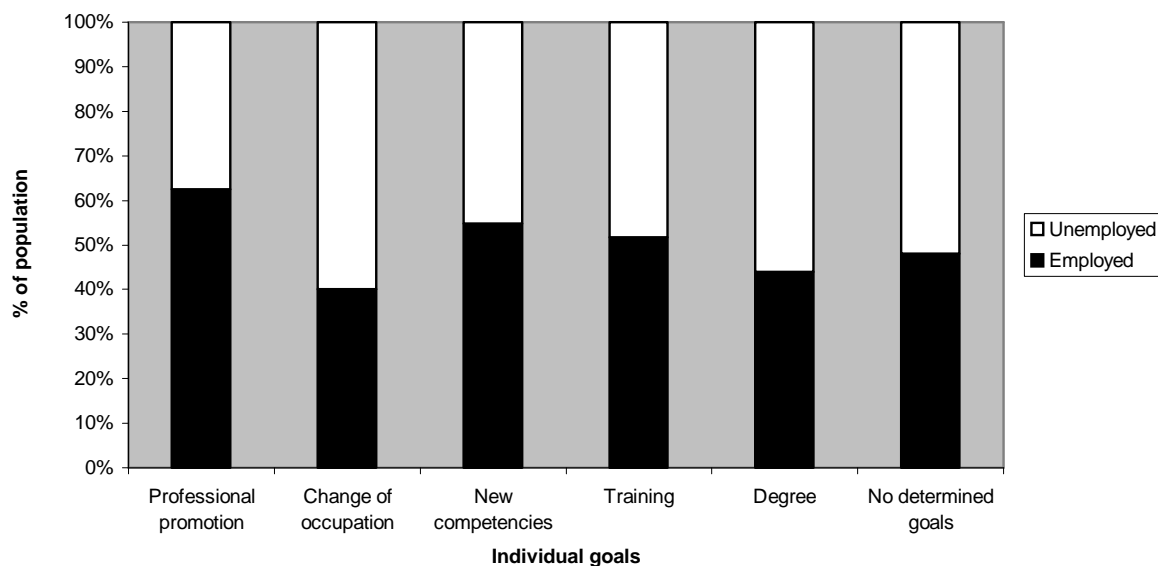
For 60 % of the Cnam students, the training is one asset among others to achieve vocational or social goals (social promotion, vocational reconversion, obtaining new skills...) (Correia-Laporte-Pottier, 1999).

**Table 1**

**Individual goals before the beginning of training in regard to the individual situation  
(By % of population)**

Goals	Employed	Unemployed	Total
To obtain a vocational promotion	25	15	23
To change of occupation	20	30	21
To learn new skills	17	14	16
To follow a training	15	14	15
To obtain a degree	11	14	11
No determined goals	12	13	14
Total	100	100	100
Population			5237

### Individual goals before the beginning of training in regard to the individual situation



But the training results differ in regard to the individual situation at the beginning of the Cnam training period. Three various population can be distinguished :

- Unemployed students,
- Employed students,
- Employed students that have to change jobs

#### 2. 2. The unemployed : some difficulties to obtain advantages from training

**Table 2**

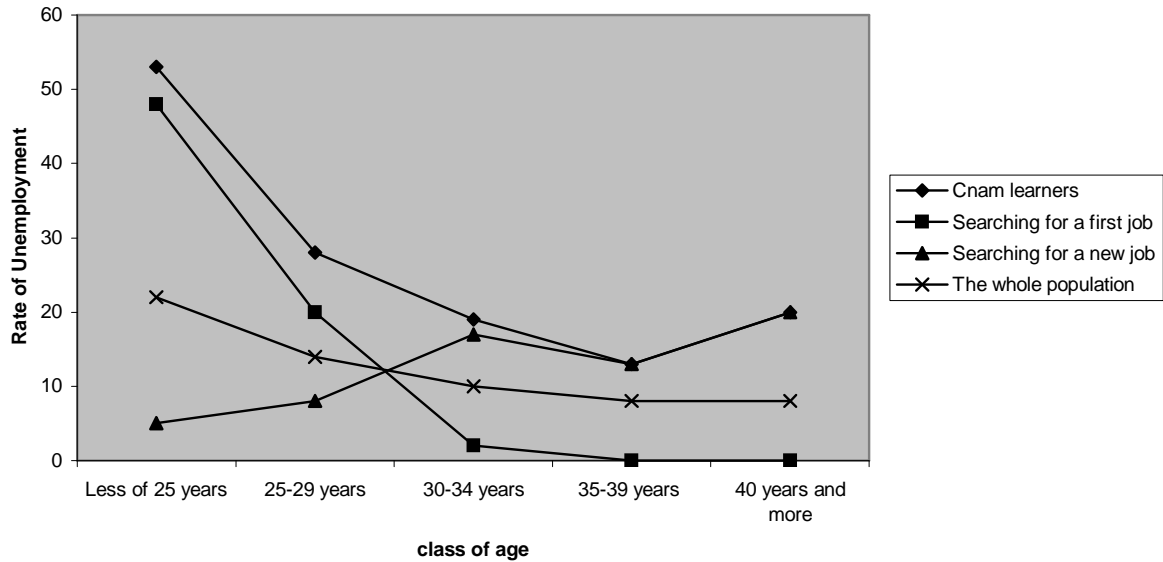
#### Rate of unemployment of the Cnam students in regard to the rate of unemployment of the whole population (By class of age)

	<25 years	25-29 years	30-34 years	35-39 years	40 years and more	Total
Rate of Unemployment of Cnam learners	53%	28%	19%	13%	20%	33%
<i>Searching for a new job</i>	5%	8%	17%	13%	20%	10%
<i>Searching for a first job</i>	48%	20%	2%			23%
Rate of Unemployment of the whole population (1)	22%	14%	10%	8%	8%	10%

(1) Source: INSEE, Enquête emploi 1996

**Rate of unemployment of the Cnam students in regard to the rate of unemployment of the whole population**

**Rate of Unemployment of the Cnam learners in regard to the rate of unemployment of the whole population**



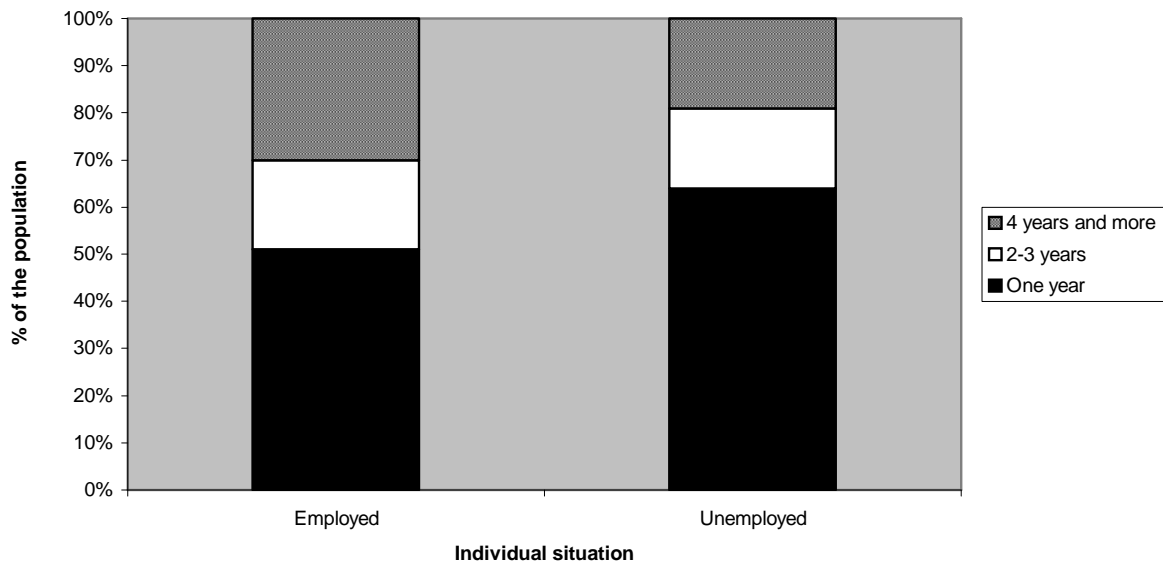
33 % of the students are unemployed at the beginning of the Cnam training period. This rate is three time larger than the whole population one (Correia-Laporte-Pieuchot, 1999).

**Table 3**

**Training duration in regard to the individual situation at the beginning of the Cnam training period  
(By % of population)**

Training Duration	Employed	Unemployed	Total
One year	51	64	53
2 – 3 years	19	17	19
4 years and more	30	19	28

**Training duration in regard to the individual situation at the beginning of the Cnam training period**



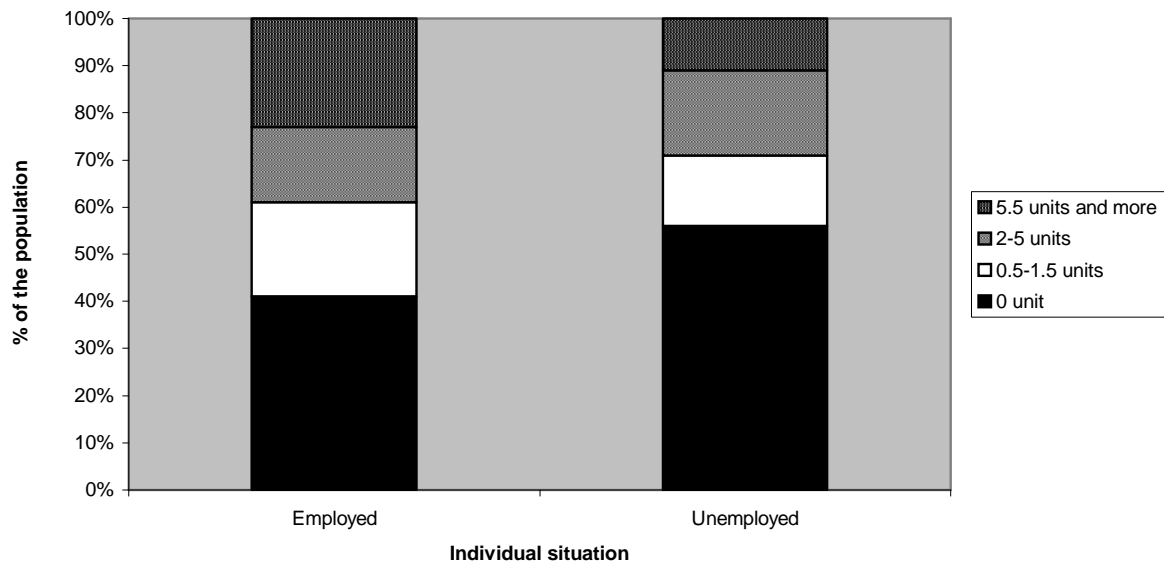
Unemployed students stay for a shorter at Cnam : two thirds stay only one year or less, but a third of the employed learners stays for more than 4 years.  
 For unemployed students who obtain a degree, it takes 1.7 times longer than for the others (Berton, 1999).

**Table 4**

**Training results (Value Units) in regard to the individual situation at the beginning of the Cnam training period (By % of population)**

Number of Obtained Value Units	Employed	Unemployed	Total
0	41	56	43
0.5 à 1.5	20	15	20
2 à 5	16	18	16
5.5 and more	23	11	21

**Training results (value units) in regard to the individual situation  
at the beginning of the Cnam training period**



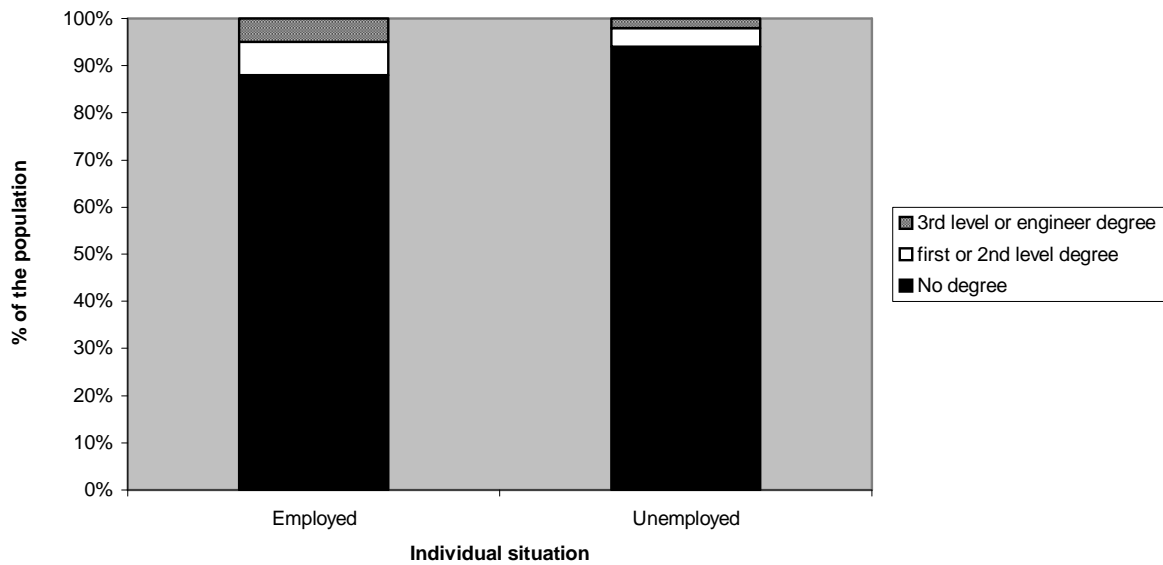
**Table 5**

**Training results (degree) in regard to the individual situation at the beginning of the  
Cnam training period  
(By % of population)**

Degree obtained	Employed	Unemployed	Total
No degree	88	94	89
1 <sup>st</sup> or 2 <sup>nd</sup> level degree	7	4	6
3 <sup>rd</sup> level or engineer degree	5	2	5



**Training results (degree) in regard to the individual situation at the beginning of the Cnam training period**



94 % of the unemployed students do not obtain any degree and 56 % no value unit, 60 % of the employed students obtain at least a half value unit, 12 % a degree and 4 % obtain an engineer degree.

**Table 6**

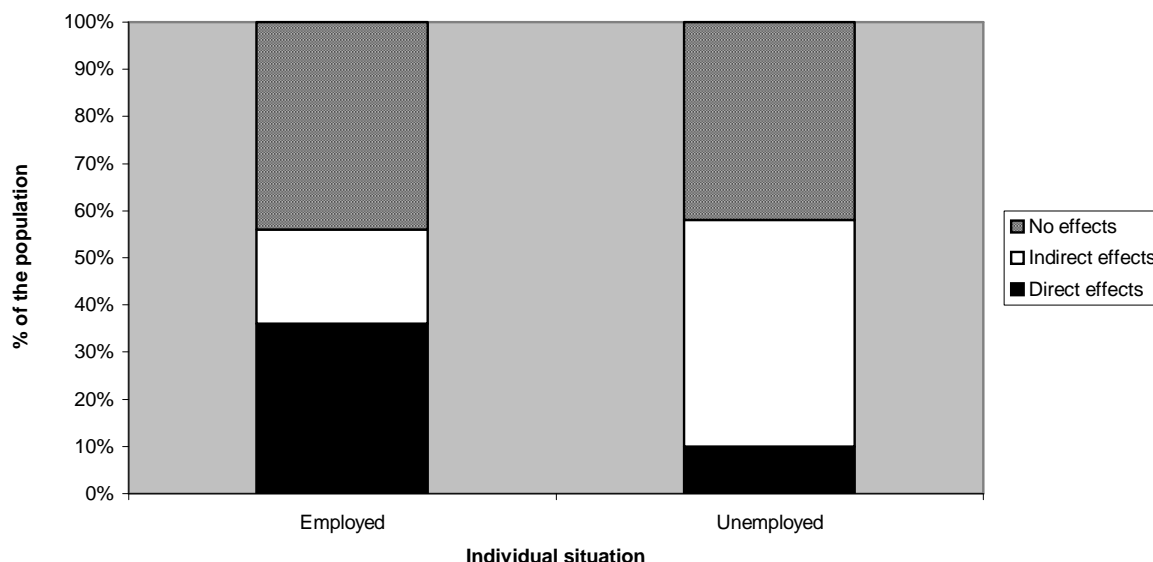
**Training effects in regard to the individual situation at the beginning of the Cnam training period  
(By % of population)**

Training effects concerning professional life	Employed	Unemployed	Total
Direct effects	36	10	33
Indirect effects	20	48	23
No effects	44	42	44

(Direct effects: effects on professional course, on competencies, on access to the job. Indirect effects: effects of professional recognition, of self-assurance...)

## Effects of training on the student's work experience

### Training effects in regard to the individual situation at the beginning of the Cnam training period



Only 10 % of the unemployed students declare that the training has any effect on their job or skills, A third of the employed students considers that training has a direct effect on their job or skills.

### 2.3. A difficult challenge for those who must change their occupation

We can observe during the last 20 years an increase of the students who must change their occupation or their job (Thiercellin, 1978 ; Barbier, 1992, Correia-Laporte-Pottier, 1999). Their situation is close to that of the unemployed learners.

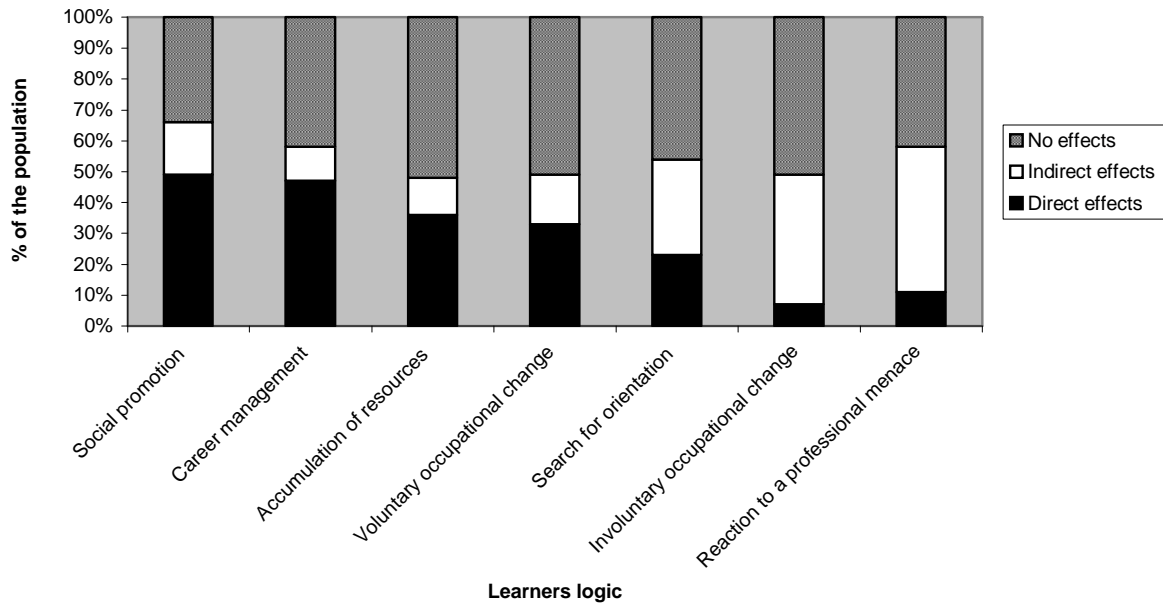
**Table 7**

#### Training effects in relation to the students's motive (By % of population)

Students's motive	Direct effects on job and skills	Indirect effects on job	No effects	% of population
Social promotion	49	17	34	24
Career management	47	11	42	11
Accumulation of resources	36	12	52	18
Search for orientation	23	31	46	8
Voluntary occupational change	33	16	51	15
Involuntary occupational change	7	42	51	9
Reaction to a professional menace	11	47	42	15
Total	33	23	44	100

The table must be read line by line: for 47 % of the students that are in a career management logic, training has direct effects on their job and skills, for 11 %, training has indirect effects and for 42 %, there are no effects. This category of students represents 11 % of the whole students population.

### Training effects in relation to the learners logic



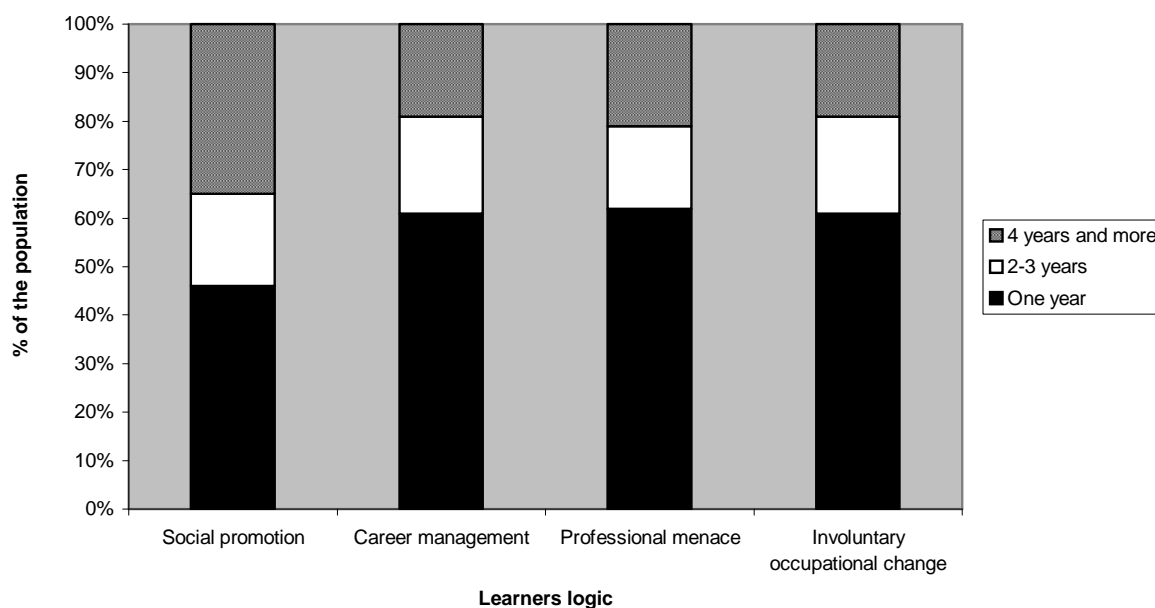
People who are in involuntary occupational change or in reaction to a vocational menace situation consider that training has very few effects on their job or skills.

**Table 8**

### Training duration in relation to the students' motive (By % of population)

Training duration	Social promotion	Career management	Professional menace	Involuntary occupational change	Total
One year	46	61	62	61	53
2 to 3 years	19	20	17	20	19
4 years and more	35	19	21	19	28

### Training duration in relation to the learners logic



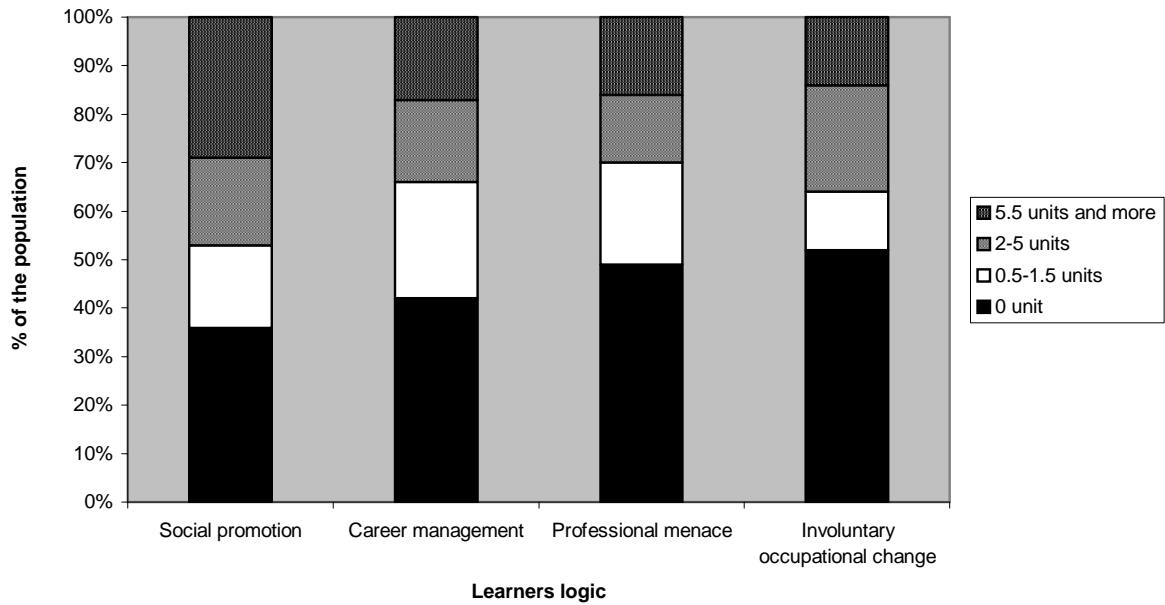
About two thirds of people in a difficult job situation follow the courses during only one year.

**Table 9**

### Training results (value units) in relation to the learners motive (By % of population)

Number of units	Social promotion	Career management	Professional menace	Involuntary occupational change	Ensemble
0	36	42	49	52	43
0.5 à 1.5	17	24	21	12	20
2 à 5	18	17	14	22	16
5.5 and more	29	17	16	14	21

### Training results (value units) in relation to the learners logic

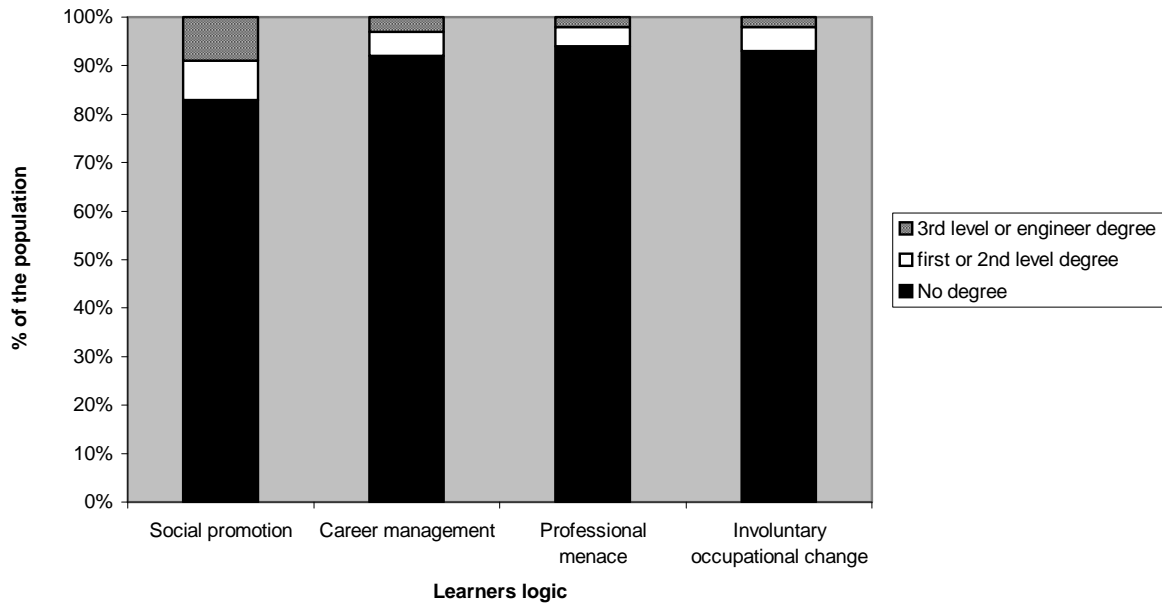


**Table 10**

### Training results (degrees) in relation to the student's motive (By % of population)

Degree obtained	Social promotion	Career management	Professional menace	Involuntary occupational change	Total
No degree	83	92	94	93	89
1 <sup>st</sup> or 2 <sup>nd</sup> level degree	8	5	4	5	6
3 <sup>rd</sup> level or engineer degree	9	3	2	2	5

## Training results (degree) in relation to the learners logic



Half of those in job difficulties do not obtain any value unit, and 62 % no degree.

## Conclusion

Adult access to higher education is now very difficult because of less stable life and working conditions and because of the more severe selection of students by educational institutions. By the other hand, the professional environment obliges workers to follow some training, but training is not a guarantee of success. We notice a strong correlation between the results of training, the professional situation of individuals, and their trajectories. Those that are upwardly mobile, without any professional problems, obtain advantages from their training. Those who have problems or who are in more complicated situations (risk of job loss or lack of any positive issues) however obtained less positive results from training periods that are generally shorter.

Does it mean that professional training is not adapted to people who would need it the most? Or does it mean that the success of professional training depends on a stable professional environment? It is an important question at a time when “flexible” (or precarious) trajectories are more and more frequent among workers and are even more often considered a good thing by national and European employment policies. In fact, we can consider that the development of such a kind of professional trajectory is not compatible with a effective higher education training policy for the adult workers.

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## APPENDIX

Le Conservatoire national des Arts et Métiers (CNAM)

### **The National Conservatory of Industrial Arts and Crafts (CNAM)**

*« Training at any time in one's career »*

The CNAM is a major public institution of higher vocational education and research, and comes under the French Ministry of Education and Research. It was founded in 1794, upon a proposal submitted to the French "Convention" by Abbot Grégoire. For over 200 years it has promoted professional progress and the development of technical trades.

It has three-fold mission:

- Training: over 500 courses for industrial and service fields,
- Research: 8 major areas, covering a wide range of subjects,
- Conservation: a prestigious Museum and a scientific and technical library.

Anyone, be they working in a company, seeking a job, or student just starting work, can enrol at any point in their working life with no previous qualifications required, for whatever courses they choose, and complete them at their own pace. The CNAM offers courses leading to a degree or more basic qualifications, on an individual basis or by arrangement with one's company, in all scientific and technical fields, as well as the service sector; highly specific training courses, designed for today's professions.

Every year, more than 70,000 adults all over France take CNAM courses. The students are relatively young, - average ages 32 - and increasingly well qualified: two-thirds have already done 2 years' Higher Education; one third of them are women. The majority are engaged in a career, and come with a variety of aims, e.g. to improve their skills, keep ahead of developments in their field, take further training, possibly with a view to changing careers, or to get a recognised degree, and so on...

Most of the CNAM classes are scheduled outside of working hours, in the evenings or on Saturdays, in the form of credits towards a diploma: flexibility as regards enrolment, flexible curricula ... The CNAM offers courses one can complete at one's own pace, depending on one's availability.

They are 7 teaching departments:

- Economics and Management (Actuary studies, International trade, Accountancy, Management control, Company law, Corporate management, Finance, Local / Government management, Logistics and transportation, Marketing, Forecasting ...)
- Labour and the Business World (Administration and personnel management, Social legislation, Ergonomics and neuroscience in the workplace, Adult training, Health and safety at work, Social insertion of the handicapped, Work psychology, Organisation science, Sociology)
- Computer Science (Structure for computer systems, Data bases, Corporate IT, IT in industry, Computer engineering, Systems integration, Artificial intelligence, Computer networks and telecommunications, Data structures, Computer systems...)
- Mechanical Engineering, Materials and Energy (Aerodynamics, Civil engineering and the construction industry, Automation of mechanical manufacturing, Mechanical engineering, geotechnics, Science of heat, Refrigeration, Metals, Polymers, Ceramics and Glass, Composites ...)
- Mathematics (Numerical analysis, Data analysis, Scientific calculations, Quality control, General mathematics, Mathematics for engineering, Signal mathematics, Programming and scientific, calculation, Probabilities, Statistics ...)
- Electronic Physics (Acoustics, Industrial automation, Industrial control, Electronics, Electro-technical and power electronics, Instrumentation, Measurements, Quality measurement, Applied optics, Optoelectronics, Physics in electronics components, Science of matter ...)



- Chemistry, Biology and Nuclear Science (Biochemistry in Industry and food processing, Biology for diverse applications, Industrial chemistry, Applied organic Chemistry, Industrial electrochemistry, Analytical engineering, Nuclear science, Pharmaceutical techniques...).

Over 7000 degrees are annually awarded. The CNAM offers recognised degrees at all levels of higher education: undergraduate and Master's courses in Social Sciences, Economics, Science and Technology, including six DUTs (Technology Diplomas); at post-graduate level, CNAM Engineering degrees, qualifications in Economics, Ergonomics, Psychology in the Workplace, and Training Programmes Management; and then the national post graduate predoctoral diplomas DEA, DESS, and Doctorate, not to mention the Institute degrees. Altogether, the CNAM awards over 7000 degrees yearly, throughout France, 1000 of which are CNAM Engineering degrees.

The CNAM network covers the whole of France and the overseas territories, with a large number of teaching centres, including some for distance learning: altogether, nearly 150 centres both in France and abroad.

The CNAM also includes about 14 specialised Institutes and centres (set up in response to demand from the professions, offering specialised training in careers such as accountancy, industrial refrigeration, port logistics, hearing-aid consultancy, insurance, documentation, real estate, surveying and so on), 8 institutes for initial training principally and 8 research and testing Centres.

The strength of this network lies in the fact that the same quality of teaching and the same diplomas are offered all over France. This set-up allows students to pursue their training without losing job mobility: e.g. with the CNAM, it is possible to begin a course in Bordeaux, continue in Paris, and complete it in Nantes.

Most CNAM teachers come from the business world. Whether they are lawyers, sales executives, accountants or engineers, they bring their concrete experience of their profession, and their teaching reflects developments in their field. Every year, new Chairs are established in the fastest-growing sectors.

Though the CNAM is best-known for its scientific and technical courses, it is playing a growing role in the tertiary professions, such as international trade, accountancy, management, finance, logistics and transportation, industrial legislation, psychology in the workplace, organisation and personnel management. Currently over half the students are taking courses in these professions, where demand is growing constantly.

Recently, the CNAM have engaged various organisational or pedagogical innovations:

- **New Engineering Degrees (NFI)**  
The CNAM was one of the first institutions to set up this new form of engineering training, based on active collaboration with companies, and aiming to alternate periods of academic study with work experience.
- **New Technology**  
Tele-tutoring, interactive classes, video-conferences, courses on the Web, ... 80 different credits are on offer in distance learning, through 70 tele-teaching sites around France.
- **Credit for Work Experience**  
To shorten training time, the CNAM has set up a system known as 'VAP' for recognition of professional experience, as well as academic qualifications. Salaried workers with a minimum of 5 years' experience may be granted exemption from part of the course. This system now operates in the Paris CNAM and about 15 regional centres.
- **The new Competence Certificates**  
Firms constantly have to adapt to economic, organisational and technological changes, and the CNAM has therefore recently set up Competence Certificates, in collaboration with the professions, i.e. shorter courses (300-350 hours) tailored to specific professional needs. Currently about 30 such Certificates are offered at the CNAM.
- **In-service training : "à la carte" courses**  
The CNAM also offers "à la carte" training: e.g. aerospace executives coming to improve their knowledge of laser optics, Ministry of Defence staff on a Negotiation course, Railway employees training in Human resources ... The aims and content of the courses are tailored to suit the group, lasting from 2 days to as much as 3 years part-time. They are held either at the CNAM or within the company itself.

- The Studies and Careers Observatory (Observatoire des Etudes et Carrières, OEC).  
The OEC regularly conducts enquiries beside the learners in order to know better their training demand and their professional situation.

The CNAM is also tends to develop two most directories:

- The 1<sup>st</sup> cycle of vocational higher education
- Specialised short training of very high level

For further details, contact: CNAM, 292, rue Saint-Martin, 75141 Paris cedex 03  
Telephone : 00 33/1 40 27 20 00

*Source : <http://www.cnam.fr>*