

AvenirPro : Job search assistance for vocational students

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Introduction

- Low employment rate of graduates from vocational high school students in France : about 35% one year after graduation for those not enrolled in education
- For the same diploma apprentices perform better : Employment rate about 20 pp above on average
 - But not for apprentices who do do remain in their training firms (about 70% of apprentices)
 - Apparent success of apprenticeship partly explained by selection of students between vocational schools and apprenticeship system
 - Difficult to develop apprenticeship in secondary education

Introduction

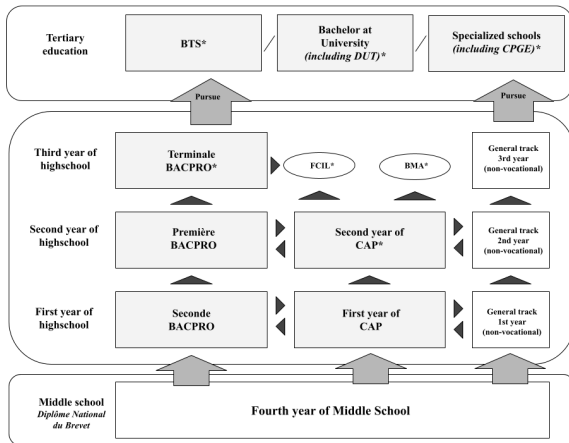
- Develop experiment *AvenirPro* to improve school to work transitions of vocational high school students :
 - Public employment agency caseworkers provide counseling to students in terminal year
 - First, 6 months before graduation : in classroom with a high school professor
 - Then, 5 months after graduation
 - Main outcomes : employment rate, enrollment in post-secondary education
- Contribution to the literature : impact of interventions of caseworkers of public employment services in terminal year of vocational schools

Outline

1. Background
2. The AvenirPro experiment
3. The evaluation protocol
4. Preliminary results

Background

Tracks in Secondary and Post-Secondary Education in France



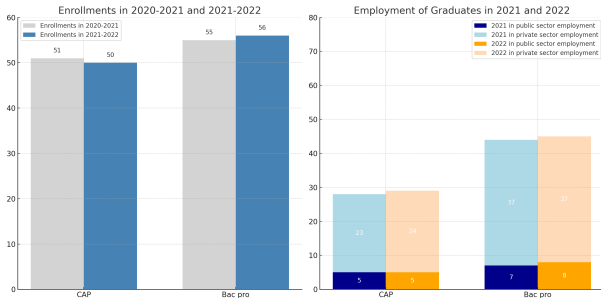
Background

Tracks in Secondary and Post-Secondary Education in France

- At 15 year-old, about 30% of each cohort of students → vocational education
- Vocational students in secondary education
 - 2 year (CAP) or 3 year (BacPro) programmes
 - 40% apprentices (apprenticeship centers, 3 days at workplace and 2 days in center)
 - 60% in vocational schools (internships : 8 weeks per year)
 - Apprentices and students obtain the same diploma

Background

School to work transition is particularly difficult for vocational high school students

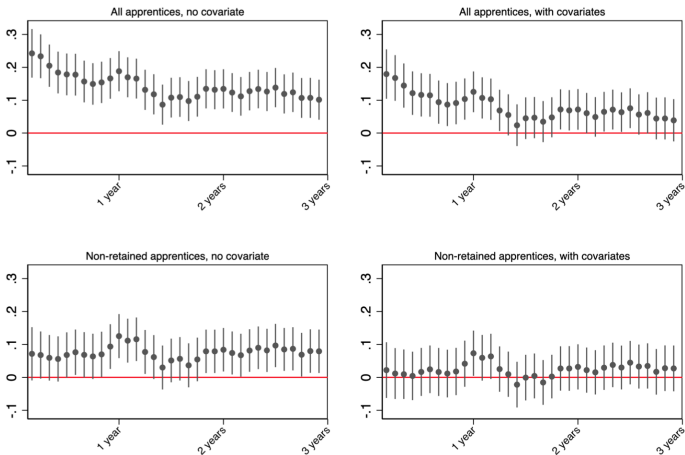


Enrollment in education and employment rate (one year after graduation) of high school vocational students in France

Background

The average employment rate of apprentices is higher than that of vocational school students after graduation : key role of retention in training firms

Employment rate difference between apprentices and students after graduation

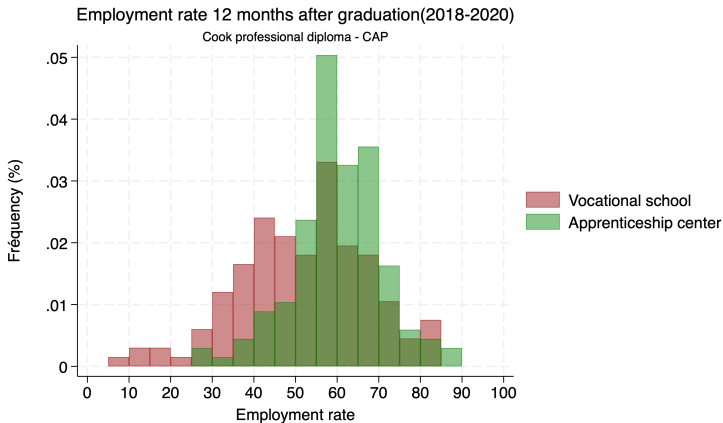


► Unemployment rates

Source : Enquête génération.

Background

For the same diploma, the employment rate after graduation of apprentices is not always higher than that of vocational school students



Distribution by apprenticeship centers and vocational schools

The *AvenirPro* experiment

Overview

Interventions of caseworkers of the French public employment service (PES) in vocational schools – but not in apprenticeship centers

- Terminal year of vocational schools (2 and 3 years programmes, about 18-19 years)
- Target students who aim at looking for a job after graduation (about 50%)
- Randomized experiment
- Pilot in 2020-2021
- Launch in 2021-2022 (171 treated schools; 4400 students, 50 full-time caseworkers, costs 1.5 million € financed by the European Social Fund)
- Continue (340 treated schools) in 2022-2023 and 2023-2024 until 2024-2025

The *AvenirPro* experiment

Programme contents

The program consists of two parts :

1. From January to June : General counseling program
 - Group-level treatment which takes place in classes during regular school times
 - Caseworkers of the French public employment service (PES) intervene in the class with the teacher : target → 25 hours
 - Caseworker works full time, 4 schools, target 100 students in phase 1.

▶ Part 1 : General counseling

2. After graduation
 - Half of the students are called back to be followed up and get individual job search assistance with proposals of job offers.
 - The program is delivered by caseworkers from mid-June to October who use similar [guidelines](#)

▶ Part 2 : Individual job search assistance

The evaluation protocol

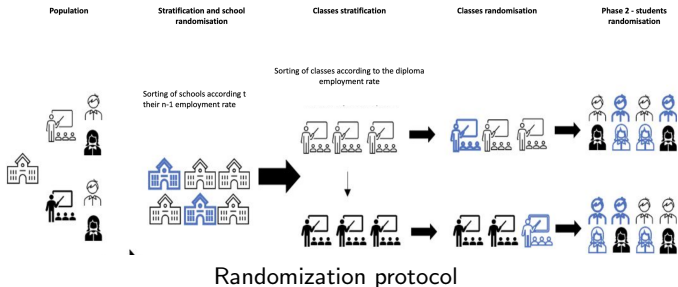
Stratified randomization by pair

Stratified randomization by pair according to the employment rate of students in previous year at three levels :

1. **Schools.** One group participates in the program (treated schools), while schools of the other group do not get any treatment (control schools : in principle, counseling by teachers since 2018).
2. Within the treated schools, we randomize at the **class** level.
3. For the second part of the program, which occurs after graduation, we randomize at the **student** level within the treated classes.

The evaluation protocol

Stratified randomization by pair



The evaluation protocol

Stratified randomization by pair

Together this enables us to analyze the impact of

1. the counseling program delivered by caseworkers of the French PES compared to a standard course of professional orientation provided by teachers, and
2. a one-to-one job search assistance program.

▶ More on design

The evaluation protocol

Data

We rely on administrative registers (Inserjeunes) which provide information about all students of vocational schools and their situation after school.

1. Primary outcomes

1.1 Employment probability

1.2 Earnings

1.3 Enrollment in post-secondary education

2. Secondary outcomes

2.1 Sector of employment

2.2 Occupation

2.3 Local job creation

2.4 Final grades.

Results

Randomization

1. Random 1 : 200 treated schools : 4 pairs of schools in the area of each employment agency
2. Random 2 : Changes due to employment agencies (eliminated or switch between random and control)
3. Random 3 : Changes due to rectorates
4. Random 4 : Changes due so schools refusing to participate

▶ Random 1

▶ Random 4

Results

Implementation

Table – Repartition by region

Region	Nb schools	Nb students phase 1	Nb students phase 2
Auvergne-Rhône-Alpes (Lyon)	12	390	175
Bretagne	16	407	171
Centre-Val-de-Loire	19	533	245
Grand-Est	37	890	404
Ile-de-France	19	385	183
Nouvelle-Aquitaine	10	328	150
Occitanie (Toulouse)	4	71	29
Pays-de-Loire	24	523	231
Provence-Alpes-Côte d'Azur	29	854	337
TOTAL	171	4381	1925

Results

Implementation

Table – Duration of interventions, participation of students

	Mean	SD	Min	Max
Workshop duration (hours)	1,66	0,47	1	3
Nb workshops	5,48	1,94	1	13
Total nb hours	9,01	4,30	2	39
Participation of students	68,53%	28,50%	0%	100%

Results

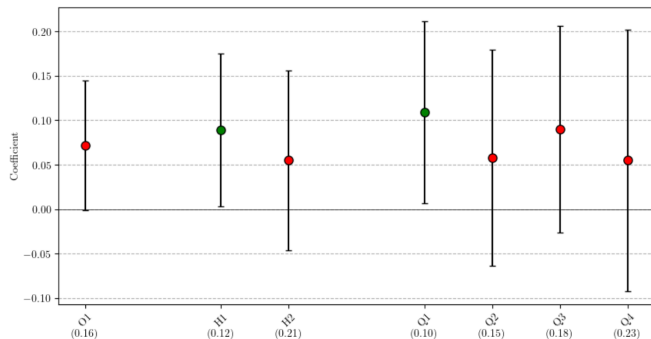
Estimator

- From random 1 to random 4, 171 schools randomized to be treated in R1 participated in the program
- Local Average treatment effect for treatment in phase 1 : Instrument Random 4 with Random 1.
- Impact on all treated schools
 - Heterogeneous effects → Predict¹ employment rate from the control group with set of explanatory variables : age, gender, profession of parents, field of study.

1. With leave-one-out predictions following Abadie, Chingos, West, 2018.

Results

Employment rate 6 months after graduation

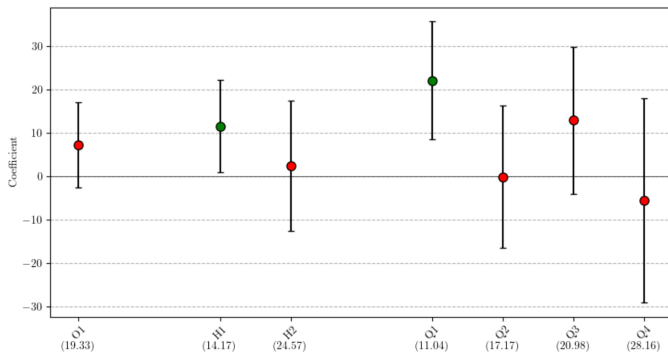


LATE : Employment rate in January 2023 (six months after graduation)

Standard errors clustered at the pair level. 90% confidence intervals

Results

Number of days of work after graduation

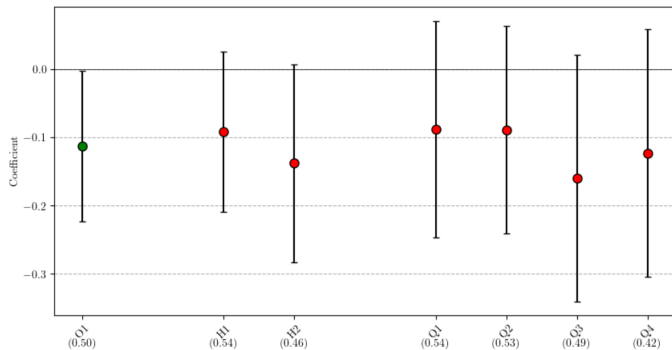


LATE : Number of days of work for youths employed in January 2023

Standard errors clustered at the pair level. 90% confidence intervals

Results

Enrollment in education



LATE : Probability to be registered in the education system in September 2023

Standard errors clustered at the pair level. 90% confidence intervals

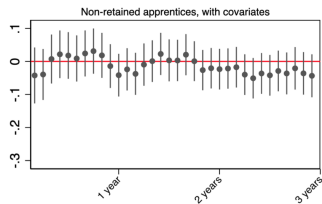
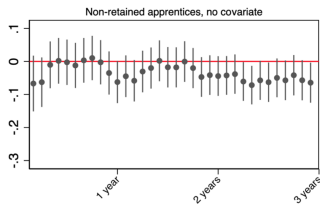
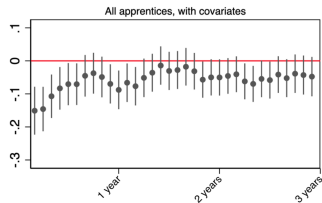
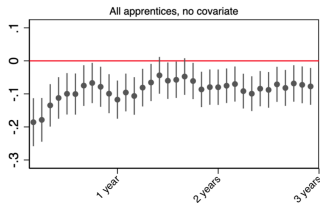
Conclusion

- AvenirPro
 - has a strong impact on employment rate of vocational students which raises by 45% (p-value= 0.104) 6 months after graduation
 - has an impact concentrated on students with low predicted employment rate
 - enrollment in education drops by 22%
- Need to know more about the interpretation of the impact on enrollment in education
- Explore the mechanisms : improvement in job search efficacy ? in motivation ? in soft skills ? direct job offers by case workers ?

Appendix

Background

Unemployment rate difference between apprentices and students after graduation



▶ Back

Appendix

Part 1 : Counseling program

In each treated class, from January to June interventions of caseworkers on the following topics using similar [guidelines](#)

1. Labor Market : general information about the [institutional framework related to the labor market](#)
2. Skills : [Identifying and Valuing Them](#) (focus on soft skills)
3. [Job Search Strategy and Techniques](#)
4. Job Interview
5. Meeting with Employers

Collective sessions are combined with individual sessions where students

- discuss the professional project and their job search with the caseworker,
- have access to a psychologist who advises them in developing their professional project.

Target : around 20 hours for the collective sessions and around 5 hours for the individual sessions.

Appendix

Part 2 : Individual job search assistance program

From mid-July to October, in each treated class

- Reach out students
- Individual sessions (around 5 hours)
 - Proposal of job offers or training to students
 - Recommendation to potential employers.
 - Placement of apprentices
 - Placement of internships (the caseworker would continue supporting the students during the internship in their job search process)

▶ Back

Appendix

Treatment

4 groups of students.

A in non-treated schools

B in non-treated classes within treated schools

C in the group-level treatment and who were not assigned to the individual job counseling program

D in the group-level treatment and who are offered the individual counseling program

▶ Back

Appendix

Treatment

Our design allows us to analyze different effects of the interventions :

1. A comparison of groups D and C will allow us to estimate the additional effect of the individual counseling program compared to the group level program only.
2. A comparison of groups D and B will give us an estimate of the joint effect of the group level treatment and the individual counseling program.
3. A comparison of groups D and A will give us an estimate of the joint effect of the group level treatment and the individual counseling program without potential displacement and spillover effects within schools.
4. A comparison of groups C and B will give us an estimate of the impact of the group level treatment on the outcomes.
5. A comparison of groups C and A will give us an estimate of the impact of the group level treatment on the outcomes without potential displacement and spillover effects within schools.
6. A comparison of groups A and B will give us insights about potential displacement effects of the treatment. From mid-July 2022 to 2022.

Appendix

Randomization R1

	Average				p-value
	Ensemble (1)	T (2)	C (3)	T-C (4)	T=C (5)
Male	0.598	0.634	0.563	0.071	0.028
Age	17.403	17.391	17.415	-0.024	0.215
French	0.892	0.895	0.888	0.007	0.358
Education choice	0.739	0.731	0.746	-0.015	0.437
Graduated	0.689	0.68	0.698	-0.018	0.17
Grade	11.554	11.489	11.617	-0.128	0.205
Field of study					
BacPro	0.771	0.763	0.779	-0.016	0.421
BP Com-Vente	0.193	0.195	0.191	0.004	0.876
BP Élec	0.118	0.113	0.123	-0.01	0.696
CAP Com-Vente	0.042	0.04	0.044	-0.004	0.645
CAP Alim.	0.035	0.036	0.033	0.003	0.701
Services	0.552	0.527	0.576	-0.049	0.266
Profession of the main parent					
Blue collar	0.116	0.119	0.114	0.005	0.326
Low skilled with collar	0.326	0.336	0.317	0.019	0.067
Mid skilled with collar.	0.104	0.102	0.106	-0.004	0.426
High skilled with collar.	0.045	0.046	0.045	0.001	0.692
School emp rate	37.619	37.716	37.525	0.191	0.708
Nb. observations	29 935	14 798	15 137		

Appendix

Randomization R4

	Average				p-value
	Ensemble (1)	T (2)	C (3)	T-C (4)	T=C (5)
Male	0.598	0.616	0.583	0.033	0.314
Age	17.403	17.398	17.408	-0.01	0.636
French	0.892	0.898	0.886	0.012	0.237
Education choice	0.739	0.745	0.733	0.012	0.55
Graduated	0.689	0.688	0.69	-0.002	0.859
Grade	11.554	11.517	11.587	-0.07	0.478
Field of study					
BacPro	0.771	0.778	0.765	0.013	0.534
BP Com-Vente	0.193	0.209	0.179	0.03	0.284
BP Élec.	0.118	0.114	0.121	-0.007	0.788
CAP Com-Vente	0.042	0.043	0.042	0.001	0.908
CAP Alim.	0.035	0.031	0.037	-0.006	0.549
Services	0.552	0.562	0.543	0.019	0.674
Profession of the main parent					
Blue collar	0.116	0.118	0.115	0.003	0.64
Low skilled white collar	0.326	0.342	0.313	0.029	0.018
Mid skilled white collar	0.104	0.103	0.106	-0.003	0.582
High skilled white collar	0.045	0.047	0.044	0.003	0.432
School emp rate	37.619	38.365	36.97	1.395	0.049
Nb. observations	29935	14798	15137		