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# The Difficult School-to-Work Transition of High School Dropouts: Evidence from a Field Experiment

**Pierre Cahuc**, Sciences Po, Crest-Ensaie, Ecole Polytechnique, IZA and CEPR

**Stéphane Carcillo**, OECD, Sciences Po and IZA

**Andreea Minea**, Sciences Po and Crest-Ensaie

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## **Abstract:**

We investigate the effects of the labor market experience of high school dropouts four years after leaving school by sending fictitious résumés to real job postings in France. Compared to those who have stayed unemployed since leaving school, the callback rate is not raised for those with employment experience, whether it is subsidized or nonsubsidized, if there is no training accompanied by skill certification. We find no stigma effect associated with subsidized work experience. Moreover, training accompanied by skill certification improves youth prospects only when the local unemployment rate is sufficiently low, which occurs in one-fifth of the commuting zones only.

**JEL Classification:** J71, J24, J68

**Keywords:** youth, unemployment, training

# 1 Introduction

Youth unemployment and inactivity is a recurring and persistent problem in many countries with a systematic and growing disadvantage among unskilled youth. In the OECD, the share of youth between 15 and 29 years old neither in employment, education nor training (NEET) was, on average, 15 percent in 2015. High school dropouts are over-represented: they make up a third of NEET youth. This disadvantage tends to be very persistent. Most dropouts remain out of employment for long periods of time with lasting consequences on their personal and professional pathways (OECD, 2016). Over the last thirty years, many programs have been tried out for disadvantaged youth: intensive job search, hiring credits in the private sector, fixed-term jobs in the public sector, and intensive training. In France, subsidized employment in the non-market sector represents an important lever of employment policy. The latest such program for the hardest-to-place youth was established in 2012, creating 150,000 *Emplois d'avenir* in the non-market sector to help improve the employment prospects of low-skilled youth. Yet, despite the substantial public finance costs associated with the implementation of such measures,<sup>1</sup> little is known about the effectiveness of specific interventions at easing school-to-work transitions among under-educated youth.

This paper evaluates the efficiency of programs for unemployed youth by measuring the chances of getting a callback from employers for high school dropouts with various types of labor market experience. The method involves sending résumés of young people who, over a three year period following their leaving high school, have been either unemployed, unemployed with some temporary work experience, or continuously employed in non-subsidized or subsidized jobs in the market or the non-market sector, with or without a certification of acquired skills. In all cases, young applicants did not finish high school and never got further education before entering the labor market.

We sent 5,388 applications over a period of 6 months in 2016 to actual job offers posted in France for receptionist and gardener positions. This strategy ensures that résumés can vary in one dimension only, which serves to identify the effects of different labor market experiences on the probability of callback. For instance, in our framework, the résumés of individuals who held a subsidized job in the past are identical in all respects to those who held a non-subsidized

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<sup>1</sup>Employment policies devote around 15% of resources to subsidized employment programs (Source: Assemblée Nationale, draft Budget Bill for 2017).

job. Since some otherwise identical job experiences are subsidized while some are not – which is specified in the résumé by mentioning the label of the well-known<sup>2</sup> youth employment program in France *Emploi d’avenir* – any significant stigma effect attached to contract subsidization can be identified.<sup>3</sup> The same holds for having held a job in the market or non-market sector and getting a certification of skills or none.

Our results show that few interventions can really make a difference in the likelihood of being contacted by employers. In the absence of training accompanied by a certification of skills, employment periods, whether subsidized or not, in the market or non-market sector, have no impact on the callback rate of young individuals with low qualifications compared with an unemployment spell of the same duration. The hardest-to-place youth in France exhibit a low callback rate in response to their applications – about 8 percent. Employment experience, either in the market or non-market sector, does not appear to increase this rate. As long as work experience is not paired with training and a certification of skills, employers are always insensitive to job spells in the résumé whatever the situation of their local labor market. However, when training providing certified skills is paired with employment, callback rates are significantly increased even if the vocational degree acquired corresponds only to the lowest level of certification available in France. Getting this vocational degree leads to a 42 percent rise in the probability of callback – a substantial effect on the employment prospects of youth with few or no qualifications. Labor market conditions also have a significant impact: the effect of certified training decreases quickly with the local unemployment rate. It is only significant at the 5 percent level in about 20 percent of the commuting zones with the lowest unemployment rates.

Like any other field experiment based on résumés, our results cannot capture all the consequences of employment experience. In particular, we do not take into account the advantages of on-the-job contacts made with employers and colleagues, as well as direct recommendations,

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<sup>2</sup>Since 2012, the *Emploi d’avenir* program has been the flagship employment measure of the French government for young people. The government conducted an extensive information and communication campaign to advertise the *Emplois d’avenir*, including press announcements, a dedicated website for youth and employers, factsheets and guides for youth, employers and local operators that deployed the measure, etc.

<sup>3</sup>One might think that real individuals would not overtly disclose in their CVs that their previous employment experiences were in subsidized contracts. In order to check for this potential issue that may affect the credibility of our fictitious applicants, we looked at real unemployed individuals’ applications available online and found that mentions of subsidized employment such as *Emploi d’avenir* do appear on applicants’ profiles. In any case, our paper shows that providing such information has no negative effect on applicants’ callback rates.

which can help job seekers direct their search in a more effective manner. Instead, in our experiment résumés are sent at random to existing job offers.

Our analysis brings contributions to the field experiments literature in the area of labor markets and more specifically résumé audit studies devoted to the effect of labor market experience on the likelihood of receiving a callback for an interview. This approach finds that subsequent work experience eliminates any potential negative effects associated with long-term unemployment spells in the past (Eriksson and Rooth, 2014). But the effects of contemporary spells are different. While short spells are not negatively interpreted by employers, long spells impact callback rates negatively (L'Horty et al. 2016 for low to medium skilled jobs in France, Eriksson and Rooth, 2014 for low to medium skilled jobs in Sweden). Randomizing résumés across various unemployment spell durations reveals that the callback rate significantly decreases with the length of a worker's current unemployment spell for young individuals below thirty with college education (Kroft et al. 2013, and Gayad, 2013 for the United States), and that duration dependence is stronger when the local labor market is tighter (Kroft et al. 2013) for those individuals. However, Farber et al. (2016) do not find any relationship between callback rates and the duration of unemployment for mature and older female workers in the United States. These experiments cover different job types, worker types, time periods, countries and regions. It is not clear which combinations of these factors explain the differences in their results. Our study brings fresh information by studying the case of low skilled young workers on labor markets with high unemployment rates. For the low skilled young individuals in our experiment, we find no detrimental effect of past unemployment experience on the likelihood of being called back for an interview. Some experiments have also evaluated the impact of the quality of work experience. For instance, holding temporary jobs may negatively affect the incidence of callback, implying that unemployed workers may be better advised to remain unemployed rather than to compromise on job quality (Farber et al. 2016). Our tests reveal that employment periods on fixed-term contracts do not improve the chances for young and low skilled individuals. They also show that past employment accompanied by certified training significantly improves the callback rate when the local unemployment rate is low, but has no effect when the local unemployment rate is high.

This paper is also related to the literature on the impact of active labor market policies and more specifically, of job creation and training programs. In an influential study, Heckman et

al. (1999) look at existing evidence from policy evaluations in the United States and Europe on the effectiveness of training, job search and job subsidy policies. They conclude that public (or non-market) sector job programs yield only a very poor performance in comparison to other interventions, a finding that is also confirmed by Kluve and Schmid (2002). In a study of Swedish activation policies in the 1990s, Sianesi (2002) shows that there is no evidence of impact for temporary public jobs on the subsequent employment probability of the beneficiaries of such programs. Similarly, Hujer et al. (2004) examine the effect of job creation programs, mostly in the public sector, in Germany and find that two years after the beginning of the programs, participants in such schemes have lower success rates in the labor market in comparison with non-participants. More recently and relying on meta-analysis methods, Card et al. (2010, 2015) show that job creations in the public sector are less efficient than other measures. They show that while training and private sector employment programs have significant effects in the medium and longer runs despite a minor impact in the short-run, public sector employment subsidies seem to be inefficient whatever the time horizon considered for their evaluation. Autor et al. (2016) find no effect of employment programs for low skilled workers on earnings, notably temporary help jobs. Looking at more than 100 studies Kluve et al. (2016) find that youth programs which integrate multiple types of interventions are more likely to succeed. However, they find no significant impact of programs focusing only on job search activities or subsidized employment, as opposed to programs comprising entrepreneurship and skills training which lead to larger effects. Our experiment reveals that neither public sector nor private sector subsidized employment makes a difference for low skilled youth in the French context, characterized by high youth unemployment. Work experience only has an impact when accompanied with training leading to certification. As a matter of fact, training has a stronger impact on the callback rate when associated with non-market work experience than with market jobs, which suggests that employers give more credibility to the training component in the former situation.

The paper is organized as follows. Section 2 presents the situation of high school dropouts in France to justify our experimental setting. Section 3 describes the experimental design. Section 4 presents the main findings. Section 5 concludes.

## 2 Background

Almost ten years after the Great Recession, youth unemployment has not fully receded in France: in 2016, the unemployment rate of young people rose to 24.3% from 18.5% at the beginning of the crisis. Unskilled youth bear most of the burden: French high school dropouts are 3 times more likely than university graduates not to be in employment, education or training (OECD, 2016). As one in six people aged 25 to 34 never finished high school, and never completed any program later on that would give them a certificate equivalent to upper secondary education, the challenge is sizable when it comes to the labor market integration of these youth.

Figure 1 displays some of the key characteristics of the labor market situation of high school dropouts in France in relation to the number of years they have been out of the education system. Employment rates of early school leavers are particularly low, with, on average, less than 1 in 3 of these young people being engaged in an employment contract. A significant share of these youth is thus unemployed: 4 years after they left school, youth who did not complete upper-secondary education face unemployment rates as high as 51%. It is actually among this latter group of young people that the number of subsidized jobs is the most frequent: about one third of youth who do work in this group have a subsidized employment contract.

Indeed, subsidized employment is one of the most frequently used policy tools in France to stimulate employment of youth who are furthest away from the labor market. These young people have access to specific contracts for which hiring is financially supported by the State. The latest such program is the *Emploi d'Avenir* created in 2012 and rapidly made familiar in France given the ample communication campaign unfolded by the government to promote the measure.<sup>4</sup> It targets youth aged 16 to 25 years old, who are unemployed, have a low level of education, and have been searching for a job for at least 6 months during the previous year. Non-market sector employers benefit from a state subsidy of 75% of the gross minimum wage for up to 3 years, against a 35% one for market employers.<sup>5</sup> Notably, the program is associated with a training component enabling youth to acquire professional skills and even

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<sup>4</sup>A survey conducted among French employers from the Ile de France region in 2013, soon after the launch of the *Emploi d'Avenir*, indicated that more than 60% of surveyed recruiters already had knowledge of the program. Besides, since the majority of *Emploi d'Avenir* contracts are signed in the non-market sector (see below), which includes the French central and local administration, it is beyond doubt that employers from this sector became familiar with the measure from a very early stage.

<sup>5</sup>Individuals employed in *Emploi d'Avenir* jobs are mainly paid the minimum wage, which covers 25% of youth employees below 25 years old in France.

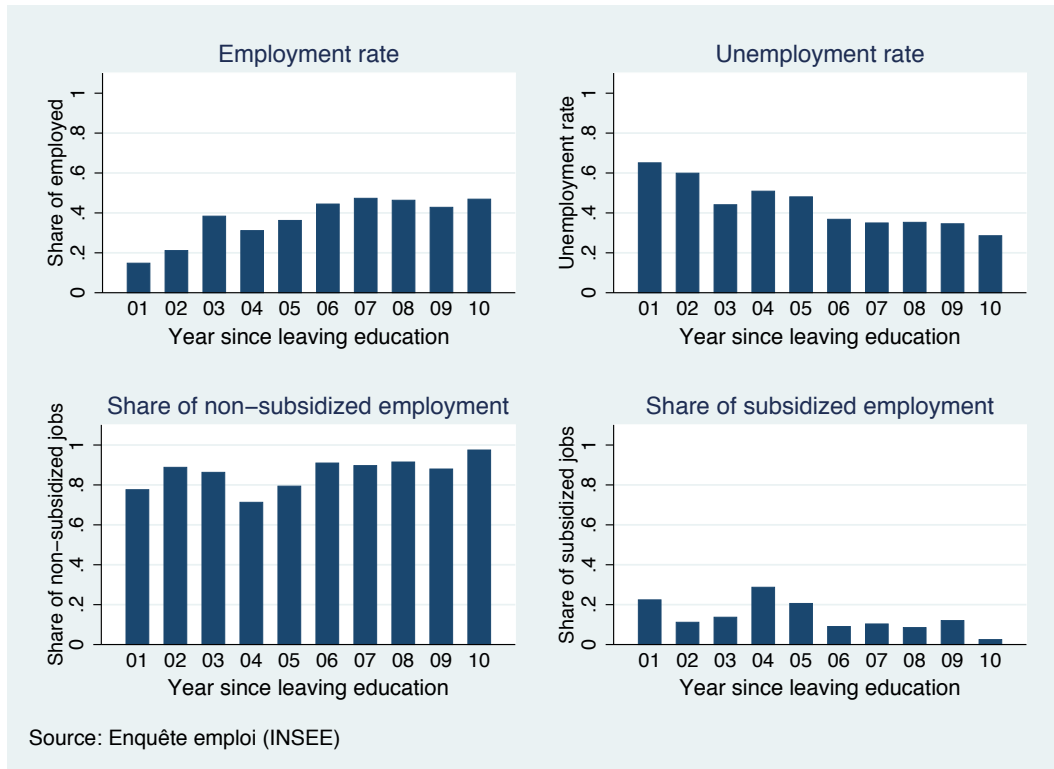


Figure 1: Labor market situation of young high-school dropouts in France  
Source: Enquête Emploi

Note: Rates are calculated on the population of young people aged 15 to 29 years old who left school without completing upper-secondary education. The share of non-subsidized employment reports the share of jobs other than *Emploi d’Avenir* or a *Contrat Unique d’Insertion* among all jobs occupied by these youth. The share of subsidized employment reports the share of jobs defined as *Emploi d’Avenir* or *Contrat Unique d’Insertion* among all jobs occupied by these youth. Figures are calculated for the first 3 quarters of 2016 for the employment rate and the unemployment rate. The shares of non-subsidized and of subsidized employment are calculated on pooled 2013-2016 data due to the low number of available observations per year for the chosen breakdown in the Labor Force Survey (*Enquête Emploi*).

to get these skills certified. Since its inception, the *Emploi d’Avenir* has been used for hiring more than 300 000 young people (Dares, 2016b). Moreover, youth in France can also benefit from another subsidized employment program, the *Contrat Unique d’Insertion*,<sup>6</sup> which started in 2010. Similarly to the *Emploi d’Avenir*, the *Contrat Unique d’Insertion* provides benefits

<sup>6</sup>In 2013-2016, among youth aged 15 to 29 years old who benefited from a subsidized employment contract defined as *Emploi d’Avenir* or *Contrat Unique d’Insertion*, 56% were in an *Emploi d’Avenir* (Source: Enquête Emploi).



both for market (up to 47% of the gross minimum wage) and non-market employers (up to 95% of the gross minimum wage), for contracts that last between 6 and 24 months. For both the *Emploi d'Avenir* and the *Contrat Unique d'Insertion*, non-market employers are the main providers of employment contracts with around 80% of entries into such contracts being in the non-market sector in 2014.

Since it is specifically designed for young people, the *Emploi d'Avenir* has been the core measure of the French government in the area of youth employment in recent years. In contrast, the *Contrat Unique d'Insertion* counts among its beneficiaries all those who encounter substantial professional and social difficulties in finding a job. Thus, in 2014, only 20% of the around 196 000 newly-signed *Contrats Unique d'Insertion* were destined for young people (Dares, 2015) and since the inception of the *Emploi d'Avenir* program, youth are supposed to sign an *Emploi d'Avenir* instead of a *Contrat Unique d'Insertion*. Beneficiaries of *Emploi d'Avenir* contracts are employed full-time, whereas those in *Contrat Unique d'Insertion* can be employed either full or part-time. Most importantly, the provision of training by the employer during the subsidized employment period is an essential feature of the *Emploi d'Avenir* program, whereas training requirements are more lax when it comes to the *Contrat Unique d'Insertion*. Market sector employers who make use of the *Contrat Unique d'Insertion* are not expected to train the new hire, while non-market sector ones only need to deliver one training activity. Conversely, training provision is mandatory for all types of employers who sign an *Emploi d'Avenir* : training activities must be specified by the employer, together with the local public employment service, 3 months after the beginning of the contract; and an assessment is carried out yearly in order to determine if the employer fulfilled its commitments. The enhanced training effort associated with *Emploi d'Avenir* contracts is confirmed by the number of training recipients among the beneficiaries of this contract: in 2014, one year after the beginning of their contract, 3 in 4 youth who benefited from an *Emploi d'Avenir* had already followed one course.<sup>7</sup> In contrast, among *Contrat Unique d'Insertion* recipients,<sup>8</sup> only 46% had received training in the non-market sector and only 23% in the market sector (Dares, 2016a). In the light of these specific features, we decided to use the *Emploi d'Avenir* and not the *Contrat Unique d'Insertion* as

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<sup>7</sup>However, not all youth get their skills certified. Among youth who began an *Emploi d'avenir* contract between October 2013 and March 2014, only 47% received a skill certification. The share of youth offered skill certification was 52% for *Emploi d'avenir* contracts in the non-market sector and 35% for similar contracts in the market sector (Dares, 2016a).

<sup>8</sup>The following shares include both youth and non-youth beneficiaries.

a signal for the subsidized employment experience of the young applicants in our experiment.

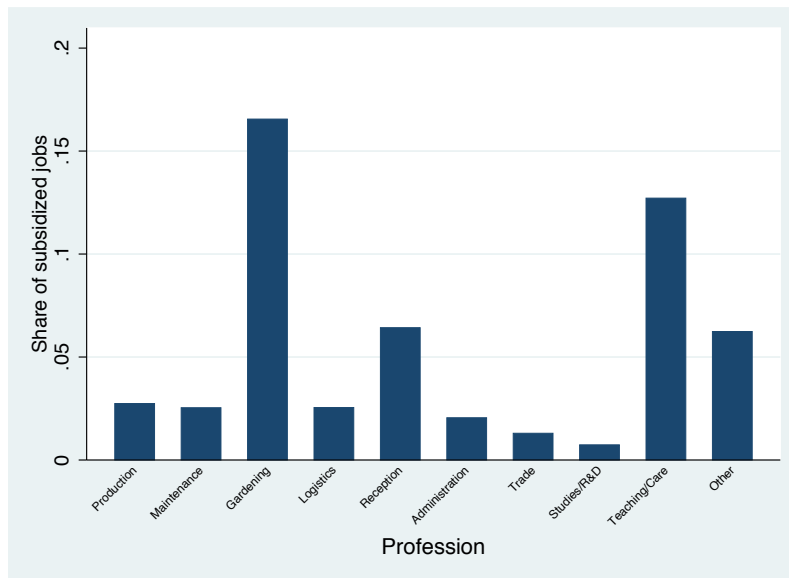


Figure 2: Share of subsidized jobs by profession  
Source: Enquête Emploi

Note: Rates are calculated on the population of young people aged 15 to 29 years old, on pooled 2013-2016 data due to the low number of available observations per year for the chosen breakdown in the Labor Force Survey (*Enquête Emploi*). Subsidized jobs are either *Emploi d’Avenir* or *Contrat Unique d’Insertion*.

Figure 2 therefore reports the share of subsidized employment jobs by the main profession categories in France for youth aged 15 to 29 years old. Gardening, teaching and reception/secretariat related jobs display the highest shares of young people who benefit from an assisted contract. This means that employers in these professions are more used to recruiting under such contracts and to receiving applications from youth who have professional experience in a subsidized job. Combined with the evidence presented above on the significant size of the high school dropouts group in France, this decided us to focus our experiment on high school dropouts who have had gardening or reception jobs under subsidized contracts and then apply for employment in these professions. We leave teaching aside since high school dropouts are excluded from subsidized employment programs for teaching. Also, by selecting gardening and reception activities, we ensure that we cover both jobs that require specific technical skills as well as jobs that focus more on social interactions.<sup>9</sup>

<sup>9</sup>When it comes to the external validity our experiment, while gardening is indeed a more restricted profession,

## 3 Experimental design

In order to build the résumés, we rely on similar profiles, found online, of French unemployed youth with varied labor market experience.

### 3.1 The fictitious applicants

The applicants are identical in all points, with the exception of their employment status and type of contract in the past 3 years. Their names and surnames were chosen from among those most commonly encountered in the French population, in order to avoid signaling any type of ethnic origin or religious affiliation. Two types of occupations are sought by these young people in their job search: gardener and receptionist. These occupations were selected given their high frequency among the subsidized jobs, *Emplois d’avenir*, offered both in the market and non-market sectors (see section above).

The applicants are young men who graduated from middle school with a delay of 2 years and then went to a vocational high school in order to obtain a vocational high school diploma.<sup>10</sup> They all attended high school for 2 years without acquiring a degree, left school when they were 19, and then experienced one year of unemployment. Following that year, they faced different labor market experiences. They could benefit either from an *Emploi d’Avenir* or from a non-subsidized employment contract for a duration of 3 years, or they were again unemployed over the same 3-year duration but engaged in part-time volunteering activities related to their field of occupation over the same 3-year duration. To ensure that employers received similar messages about the intrinsic motivation of both the unemployed and employed candidates, youth with an employment profile also displayed a volunteering experience on their CV.

At the time of the experiment, fictitious applicants are all 24 years old and have been searching for jobs since their previous employment or volunteering activity ended, in December 2015. They all have an elementary level in English as well as some basic knowledge of IT softwares related to document creation or Internet use. Finally, all CVs include some information about

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receptionists can be found across all types of sectors and industries. Hence, we may consider that our results are not swayed by the specific characteristics of a given industry. Furthermore, Figure 2 shows that the share of subsidized employment among young receptionists is not especially high (6.42%).

<sup>10</sup>In France, vocational baccalaureate corresponds to level IV based on the National Classification of Levels of Training. On this scale, a Bachelor degree corresponds to level III whereas a PhD corresponds to level I. For international comparison purposes, the French vocational baccalaureate corresponds to level 3 of ISCED 2011 whereas early childhood education is at level 0 and a PhD at level 8 on the same scale.

their main hobbies or leisure activities, which remain very standard and similar to other CVs that can be found online.

CVs are tailored such that applicants' profiles correspond to the specificities of the two types of occupations chosen for this study: gardener and receptionist. For the gardener profile, youth attended a vocational high school in which they prepared for a vocational high school diploma in the area of landscaping (*Travaux paysagers*). This degree trains youth to prepare a landscaping site under the supervision of a hierarchical superior as well as to implement the different techniques necessary for the creation and maintenance of such sites. For the receptionist profile, they prepare for a vocational high school diploma in the area of services for the management of places open to the public (*Services de proximité et vie locale, Spécialité : Gestion des espaces ouverts au public*). This high school track prepares youth to greet and assist the public in places receiving a large number of customers or users, as well as to maintain the premises and to look after the general safety of people who are present. Apart from this, for both profiles, the previous 3-year employment or volunteering experience of the subjects likewise matches the type of occupation they are applying to, namely gardener or receptionist, and they also display specific competencies in a "Skills" section on their CV that is directly related to this occupation.

For each occupation, we build a total of 12 CV types that can be differentiated based on the type of professional trajectory individuals had in the previous three years. The primary level of differentiation between our applicants is whether they were employed or unemployed throughout that period.

### **3.1.1 The employed youth profiles**

Among the employed, we distinguish between those who were in a subsidized vs. a non-subsidized job, working in the market vs. the non-market sector. The employers' names, both in the market and non-market sectors, correspond to real employers who hired youth in *Emploi d'avenir* contracts. Besides, since the subsidy associated with the *Emploi d'avenir* is granted on the condition that recruiters provide training (certified or non-certified), we introduced an additional level of differentiation based on whether our fictitious applicants acquired skill certification in the form of a vocational degree (*titre professionnel*) of level V during their 3-year employment period. A vocational degree, which corresponds to the lowest level in the National

Table 1: Employment experience of applicants

	Market				Non-Market			
Subsidized job	Yes	No	Yes	No	Yes	No	Yes	No
Vocational degree	Yes	No	Yes	No	Yes	No	Yes	No

Note: this table displays the employment experience of applicants who could have worked either in the market or in the non-market sector, on a job either subsidized or non-subsidized and who could get either a vocational degree or no vocational degree.

Classification of Levels of Training, is delivered by the Ministry of Employment and certifies that its holder possesses the skills, abilities and competencies required to exercise a given profession. It can be obtained after a vocational training course or through the accreditation of prior learning (*Validation des Acquis de l'Expérience* or VAE). Thus, 8 employed youth profiles emerged from the combination of contract type, sector and acquisition of a vocational degree during the 3-year employment period as described in table 1. As explained above, both employed and non-employed youth profiles feature volunteering experiences on their CVs, hence volunteering does not constitute an additional level of differentiation.

### 3.1.2 The unemployed youth profiles

We create 4 types of unemployed profiles allowing us to distinguish between youth who were unemployed for the entire 3-year period and youth who were engaged in one, two or three short fixed-term contracts throughout this period. The comparison of these profiles with those of youth having benefited from an “Emploi d’avenir” enables us to specify whether even very short employment spells in the private sector are preferable to subsidized jobs when it comes to their impact on youths’ subsequent employment opportunities. The short fixed-term contracts chosen are in occupations not related to the two main occupations youth apply for (gardener and receptionist) and each of these short-term job spells lasts only two months. A first one is that of sales person (*animateur de vente*) in a home furnishings retail chain whereas the second one is that of team member (*équipier polyvalent*) in a fast-food chain. For youth who had three of these short fixed-term contracts, two of them are with the same company and on the same position; this was considered to be an indicator that the company considered the individual to be good enough to be hired a second time for the same job. All individuals with an unemployment profile were engaged in a volunteering activity that lasted three years in their main occupational

field. Thus, youth applying for a gardener position were volunteering as gardeners for a local gardening association whereas those applying for a receptionist position were volunteering as receptionists in a sports association. This resulted in 4 unemployed profiles:

- unemployed with no short fixed-term contract experience in the previous three years.
- unemployed with one short fixed-term contract experience in the previous three years.
- unemployed with two short fixed-term contract experiences in the previous three years.
- unemployed with three short fixed-term contract experiences in the previous three years.

The variation in the previous employment status, contract type, sector and acquisition of a vocational degree following training during this last job for the employed youth, and that in the number of short fixed-term jobs performed by the unemployed youth results in twelve applicant profiles:

(2 contract types) x (2 sectors) x (2 training) + (4 unemployment paths).

### 3.2 The applications

Applications are sent to job offers from all French *départements* (administrative areas) between the 15th of February and the 15th of July, 2016. Applicants' addresses were chosen to be in the center of whatever city serves as the administrative capital (*préfecture*) of the department in which the job was posted, in order to ensure that candidates live relatively close to their potential future job.

Job offers for both occupations are identified using mainly the website of *Pôle Emploi*, the French public employment service. A few private job search websites, such as *Le Bon Coin* or *Indeed* are also used in case the number of offers available on the *Pôle Emploi* platform is too low on a given day. Applications are sent only when it is possible to contact the recruiter directly by email, hence job offers issued by temporary work agencies or other intermediaries are not considered. It was also decided to send applications when a *Pôle Emploi* email address was mentioned in the job offer instead of the employer's. This choice was motivated by the fact that for the type of low-skilled positions sought by the applicants in this study, *Pôle Emploi* counselors only check that the candidate fulfills the general prerequisites of the job offer (level of education, experience, etc.) before forwarding the application to the employer who makes

the actual recruitment decision. Finally, the same recruiter could never be contacted more than once, even if it posted different job positions in different *départements* throughout the entire experiment period. The same applied for offers providing only a *Pôle Emploi* counselor email address: only one application could be sent for each *Pôle Emploi* email address.

The typical application included a résumé and a cover letter, and was accompanied by a short email message (see the Appendix for the different types of résumés, cover letters and email messages based on individuals' profiles). In order to ensure that callback rates are not due to employers' preferences for a given presentation style of résumés and cover letters, two types of layout were created for all applications. Two applications were sent for each job offer, but on consecutive days: one with an employed profile and one with an unemployed profile. The name of the applicant, the application profile (employed or unemployed), layout type and day of application (first or second day since the identification of a job offer) were all selected at random. In total, 5 388 applications were sent throughout the entire period, half of them corresponding to unemployed profiles and the other half to employed profiles. Overall, there are on average 674 applications per unemployed profile and 337 per employed profile.

Callbacks to job applications were received by email as well as by phone, since candidates had distinct phone numbers that varied according to their names. Email addresses and phones were checked regularly until the 5th of September, 2016, when the last recruiter responses were recorded. When recruiters provided a positive answer to an application by inviting the applicant to an interview or requesting additional information about the application, an email (see Appendix 6.3) was sent in order to thank the recruiter and inform him that the applicant had signed an open-ended contract with a different employer.

## 4 Results

The mean callback rates are reported in Table 2, while Table 3 provides information regarding the characteristics of applications. Callbacks include both explicit invitations to interviews as well as requests for additional information. As a robustness check, we present in Appendix 6.1 results based on a more restrictive definition of the callback rate that confines callbacks to explicit invitations to an interview.

About three quarter of the applications are in the market sector. The average callback rate for all types of applicants is low at 8 percent. Applicants who where employed on subsidized

Table 2: Callback Rate Descriptive Statistics

<i>Dependent variable: Received callback for interview or information request</i>	Mean	Std. deviation
<i>Résumé attributes</i>		
All applicants	.080	.271
Unemployed, no job experience at all	.070	.256
Unemployed, 1 temporary job	.079	.270
Unemployed, 2 temporary jobs	.074	.263
Unemployed, 3 temporary jobs	.054	.226
Employed, market, subsidized, certified skills	.108	.311
Employed, market, non-subsidized, certified skills	.072	.260
Employed, market, subsidized, no certified skills	.079	.256
Employed, market, non-subsidized, no certified skills	.083	.277
Employed, non-market, subsidized, certified skills	.125	.331
Employed, non-market, non-subsidized, certified skills	.103	.304
Employed, non-market, subsidized, no certified skills	.069	.254
Employed, non-market, non-subsidized, no certified skills	.068	.253
<i>Job characteristics</i>		
Gardener position	.115	.319
Receptionist position	.044	.206
Job in the non-market sector	.110	.313
Job in the market sector	.071	.257
Job in the public sector	.128	.334
Job in the private sector	.073	.261

Note: The first column of the table reports the mean value of the primary dependent variable which is equal to 1 if the résumé received a callback from the employer. The second column reports the standard deviation of this variable.

non-market jobs and who got a vocational degree at the end of their employment spell get the highest callback rate, equal to 12.5 percent. Unemployed workers who occupied 3 two-month temporary jobs during their three-year unemployment period get the lowest callback rate, equal to 5.4 percent.

To analyze the experimental data, we estimate the following linear probability model:<sup>11</sup>

$$y_{ij} = \alpha + \beta_i \mathbf{1}(i) + x_j \gamma'_j + \varepsilon_{ij}$$

<sup>11</sup>To address concerns about non-linear effects that can arise when the average callback rate is low, we report results replacing the OLS (linear probability) model with a Probit model in Appendix 6.2. The Probit results show that the estimated marginal effects are very similar to the OLS results.



Table 3: Employer Descriptive Statistics

	Mean	Std. deviation
<i>Employment pool characteristics</i>		
Unemployment rate (%)	9.580	1.830
Unemployment rate, quintile 1	7.398	0.720
Unemployment rate, quintile 2	8.595	0.173
Unemployment rate, quintile 3	9.315	0.324
Unemployment rate, quintile 4	10.344	0.288
Unemployment rate, quintile 5	12.523	1.270
<i>Employer's characteristics</i>		
Market	.776	
Non Market	.224	
Private	.871	
Public	.129	
<i>Job characteristics</i>		
Gardener position	.495	
Receptionist position	.505	
Open-ended contract	.285	
Fixed-term contract	.715	
<i>Job characteristics in the market sector</i>		
Gardener position	.497	
Receptionist position	.503	
Open-ended contract	.333	
Fixed-term contract	.667	
<i>Job characteristics in the non-market sector</i>		
Gardener position	.535	
Receptionist position	.465	
Open-ended contract	.106	
Fixed-term contract	.894	

Note: The table reports the unemployment rate of the commuting zone of the vacant job, the share of market and non-market vacant jobs, the required profession and the type of contracts of vacant jobs.

Table 4: The Effect of Individual Pathway on Probability of Callback

Dependent variable: Received a callback		(1)	(2)	(3)	(4)
		All applicants	Gardener	Receptionist	
(1)	Unemployed, 1 temporary job	.008 .013	.009 .013	.003 .021	.012 .014
(2)	Unemployed, 2 temporary jobs	.005 .015	.001 .014	-.002 .025	.005 .015
(3)	Unemployed, 3 temporary jobs	-.018 .013	-.015 .013	-.019 .023	-.003 .014
(4)	Employed, market, subsidized, certified skills	.039** .016	.038** .016	.045* .025	.026 .018
(5)	Employed, market, non-subsidized, certified skills	.001 .021	.004 .021	-.036 .034	.036 .028
(6)	Employed, market, subsidized, no certified skills	-.000 .015	.002 .015	-.002 .024	.013 .016
(7)	Employed, market, non-subsidized, no certified skills	.012 .018	.014 .018	.014 .029	.006 .019
(8)	Employed, non-market, subsidized, certified skills	.051*** .019	.051*** .020	.041 .030	.054** .024
(9)	Employed, non-market, non-subsidized, certified skills	.033** .017	.032* .017	.037 .026	.030 .019
(10)	Employed, non-market, subsidized, no certified skills	-.004 .016	-.004 .016	-.007 .027	.001 .015
(11)	Employed, non-market, non-subsidized, no certified skills	-.003 .019	-.002 .019	.021 .035	-.012 .016
(12)	Constant (ref: unemployed, no job experience at all)	.059*** .013	.059*** .013	.105*** .023	.018 .013
	N	5, 388	5, 388	2, 720	2, 668
	Adj-R <sup>2</sup>	.008	.041	.073	.041
	Department fixed effects	no	yes	yes	yes
	Month fixed effects	yes	yes	yes	yes

Note: The dependent variable is a dummy variable equal to one if the application gets a callback. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

where  $y_{ij}$  is an indicator variable equal to 1 if applicant of type  $i$  receives a callback from job  $j$ . A callback is defined as an invitation to an interview or a request for additional information.  $\mathbf{1}(i)$  is an indicator function equal to one if the applicant is of type  $i$ .  $x_j$  is a vector of characteristics of the job which can include the profession, the type of contract (open-ended or fixed-term), the size of the firm, a *département* fixed effect and the unemployment rate of its commuting zone.  $\varepsilon_{ij}$  is a residual term. Standard errors are clustered at the job level.<sup>12</sup>

<sup>12</sup>As a robustness check, we also run regressions without any clustering as well as with clustering at the commuting zone level. Results are similar to those presented in the core of the paper.

## 4.1 Employed versus unemployed

Our applicants have had different work experiences in the three years preceding their applications. They could occupy several temporary jobs for 2-month periods or they could be employed continuously, with the same employer. We compare applicants who followed either of these two paths with applicants who remained continuously unemployed over the last three years. This section is focused on applicants who did not get any skill certification. The impact of skill certification is examined in the next section.

### 4.1.1 Experience on temporary jobs

Table 4 shows that having some patchy work experience during the period of unemployment does not improve the relative situation of the candidates. This type of brief work experience gives no advantage to the unemployed who performed these jobs compared to other unemployed candidates with absolutely no work experience during their unemployment spell. This result holds both for gardeners and reception staff. It is consistent with those of Farber et al. (2016) who look at the impact of low wage jobs which do not match the previous work experience and education of college-educated females who apply for administrative support jobs. In their correspondence study, they find that such low-level temporary jobs do not increase the probability of callback. Farber et al. even show that taking a temporary job significantly reduces the likelihood of receiving a callback. Similarly, Nunley et al. (2016) look at the case of recent college graduates in the U.S. and find that youth who had job spells in positions for which a bachelor's degree was not required had a lower probability of being called back for an interview than more appropriately employed youth. The results of Farber et al. and of Nunley et al. suggest that low-level work experience is not valued at all by employers, who may even believe that it makes the applicant ill-suited for the position. The absence of negative effects of having held temporary jobs in our setup might be due to the very low skill level of our applicants. For our low skilled candidates facing very high unemployment rates, it is likely that having temporary jobs does not signal that they are ill-suited to the job vacancy. But nor does it help them to get more callbacks by signaling that they are more strongly motivated to work than other candidates who did not work at all over the last three years.

### 4.1.2 Experience on jobs without certified training

Table 4 shows that being employed rather than unemployed does not significantly improve the likelihood of receiving a callback if there is no training and certification of the skills acquired. This is true for gardeners as well as for receptionists. Hence, for high school dropouts, being employed for three years on fixed-term contracts, either in the market or non-market sector, subsidized or not, but without a qualifying training does not improve the chances of a positive callback even among employers from the market sector (rows 6, 7, 10 and 11 of Table 4). These results are striking, as it is often claimed that getting a job in the market sector is a pathway to employment. They are nevertheless consistent with those of Fremigacci et al. (2016) who find that men unemployed for one year who apply for waiter jobs in France do not have lower callback rates than men employed on fixed-term contracts over the last year. All in all, it turns out that accumulating experience, even in the market sector, is not sufficient to get higher callback for young low skilled workers in France. It is however possible that being employed allows young people to plug into networks of connections which transmit more job offers. Our experiment does not allow us to explore this mechanism.

## 4.2 The importance of training and certified skills

Table 5 shows that only applicants with skills certified by a vocational degree at the end of their employment spell have higher callback rates than applicants who remained unemployed. The impact of skill certification is large (+3.4 percentage points, Table 5) but very heterogeneous. Skill certification has a stronger impact when the youth occupied a subsidized job rather than a non-subsidized job, and the impact is even stronger if the job on which the experience has been certified was in the non-market sector (rows 4, 5, 8 and 9 of Table 4). Unlike other subsidized employment schemes, subsidization is indeed conditional on participation in training under the *Emploi d'Avenir* program, which is supervised by the public employment service. Youth employed in an *Emploi d'Avenir* are followed by a contact person from the public employment service and by a tutor chosen among the employees or managers of the employing structure. Contact person, tutor and youth have to meet regularly. This means that the monitoring of training of youth employed on subsidized jobs is likely stronger than on non-subsidized jobs. It is also likely that more time can be devoted to studying and training in the non-market sector than in the market sector. Another reason might be that, in the non-market sector, due to

budgetary constraints many of the 3-year temporary contracts are not renewable and there is very little possibility of recruitment on permanent contracts, whereas employers in the market sector have more leeway to transform temporary jobs into permanent ones if they are satisfied with their employee. Accordingly, it is likely that candidates with certified skills who come from market jobs are deemed less effective than candidates who come from non-market jobs since their contract has not been converted into an open-ended one while it could have been. All in all, recruiters may expect youth who acquired certified skills on subsidized jobs in the non-market sector to be more skilled/effective than youth who acquired skill certification on other types of job. In the Appendix, we provide results based on a definition of the callback rate which considers as a positive callback only explicit invitations for interviews. When this more restrictive callback rate definition is used, the effect of training on the probability of callback becomes non-significant for youth with work experience in market subsidized jobs (see row 4 of Table 13 in the Appendix). This provides evidence that training acquired in the market sector is indeed perceived as less serious by employers, who are more inclined to request additional information from applicants with such profiles, instead of inviting them directly to an interview.

The situation of applicants who acquired their vocational degree at the end of a non-subsidized employment spell in the market sector is yet another illustration of this interpretation. Table 4 (row 5) shows that the callback rate for these applicants is not significantly different from those who remained completely unemployed. This result hinges on the applications of gardeners who were working in a large retail store, where they maintained green spaces, before sending their applications. For potential employers, even if these applicants got a vocational degree in this field, being employed by a large retail store might mean that they must not have had much time to properly train as gardeners especially as they were most likely not required to perform very advanced gardening tasks. Accordingly, recruiters do not value this type of profile.<sup>13</sup> However, they do seem to value more the profile of applicants who were receptionists in the same store and got a vocational degree in the corresponding field, as shown by column 4, row 5. Recruiters may take the view that individuals with a receptionist

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<sup>13</sup>When callback is defined only as an explicit invitation to an interview (hence, excluding requests for more information), the negative coefficient on the non-subsidized employment spell in the market sector profile for gardeners becomes statistically significant at the 10% level. On the contrary, certification in a non-market, subsidized experience displays a strong positive and statistically significant impact (rows 5 and 8, column 3 of Table 13 in the Appendix), which contrasts with the lack of any effects observed in Table 4 (row 5) where requests for information are taken into account.

profile had more opportunities to properly train and expand on their skills in a retail store (in comparison to gardeners), hence the positive, though not significant, coefficient observed for receptionists.

### **4.3 The effects of being employed on subsidized jobs and on non-market jobs**

Contrary to prior expectations according to which experience accumulated on non-subsidized employment should be more highly valued by employers than experience accumulated on subsidized employment, we find that individuals who performed a subsidized job do not get lower callback rates. Table 6, column 1, shows that subsidized jobs improve the chances of callback (+2.1 percentage points). But this effect is triggered by the role of skills certification, which appears to have more credibility when performed in the context of an assisted job as explained above. Indeed, the effect of subsidized employment on the callback rates disappears when certified skills are controlled for, as shown by column 2 of table 6. This result holds true both for gardeners and receptionists, as shown by columns 3 and 4 of table 6. Accordingly, there seems to be no “stigma” effect associated with subsidized employment for low-skilled youth in France.

When it comes to the type of sector in which individuals worked previously, it appears that professional experience in the non-market sector increases the chances of callback more than employment in the market sector (+2.1 against +1.6 percentage point), as shown by table 7, column 1. Once again this effect relies on the credibility of the training in the non-market sector: any specific effect of going through the non-market sector disappears if training is controlled for, as shown by column 2 of table 7. All in all, work experience without certified training does not improve the probability of callback whatever the sector, either market or non-market, in which experience was accrued.

The effect of candidates’ previous professional experience on their callback rates may nevertheless depend on the type of sector they apply in. Indeed, we might expect market sector employers to place less value on certain applicant profiles, such as those exhibiting subsidized or non-market sector employment experiences. Panels B and C of tables 6 and 7 examine this hypothesis. Results show that market sector employers do not stigmatize individuals having held subsidized jobs in the past, nor those having worked in the non-market sector. When the effect of training is taken into account, both market sector and non-market sector recruiters

react in a similar way to the previous employment experience of our applicants.

Finally, we can examine whether subsidized employment in the market sector is more efficient at increasing youth's chances of getting a callback from potential employers than subsidized employment in the non-market sector. Meta-analyses (Card et al. 2010, Kluge, 2010) found that private sector incentive schemes are more effective than other programs for young people. Similarly, a recent assessment of subsidized jobs conducted in France between 2005 and 2007 indicates that subsidized jobs in the market sector had a positive impact on access to stable employment two and a half years after the entry into the contract, unlike subsidized jobs in the non-market sector which had a negative effect (Benoteau, 2015). Our results are displayed in table 8 and suggest that, in the absence of training, subsidized market work experience, similarly to subsidized non-market sector experience, has no effect on the probability of callback. This holds whether individuals apply to market or non-market sector job offers, as reported in Panels B and C. Put differently, table 8 reports a stronger effect of subsidized non-market employment on the chances of receiving a callback (column 1), but this effect withers away when training is controlled for (column 2). This results holds true for gardeners and receptionists (columns 3 and 4). Thus, for the hardest-to-place youth in France, previous work experience whether subsidized or non-subsidized, in the market or non-market sector, has no effect on their employment prospects if it is not accompanied by a qualification component in order to enhance their skills.

#### **4.4 The type of job offer**

Results from previous sections are robust to the control of a variety of employer characteristics such as size or sector. In this section, we explore differences in callback rates based on the type of job offer. The callback rate is 3.5 percentage points lower for market jobs than for non-market jobs, as reported by table 9, row 1, column 1. This result is mainly driven by gardeners who have a decreased probability (-6.1 percentage points, row 1, columns 3 and 4) to get an interview when sending a job application to a market sector employer, unlike receptionists for whom applying to a market or non-market employer is virtually equivalent. This results holds when the acquisition of certified skills is controlled for, meaning that market and non-market employers react in a similar way to the level of competence of our candidates.

Table 9, row 2, shows that the callback rate is similar for jobs that offer a fixed-term contract

Table 5: The Effect of Skill Certification on Probability of Callback

	(1)	(2)	(3)
	All applicants	Gardener	Receptionist
Employment without certified skills	.003 .008	.008 .013	.000 .008
Employment with certified skills	.034*** .009	.035** .014	.031*** .010
Constant (ref: unemployed)	.059*** .012	.104*** .021	.021* .011
N	5,388	2,720	2,668
Adj-R <sup>2</sup>	.040	.071	.040

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback. Employment with certified skills comprises all applications of applicants who were employed on jobs in the market or non-market sector, with or without subsidy, which offered skill certification. Employment without certified skills comprises all applications of applicants who were employed on jobs in the market or non-market sector, with or without subsidy, which did not offer skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

and those that offer an open-ended one. This is true for gardeners and receptionists, whether they have certified skills or not. This result is unexpected to the extent that open-ended contracts are preferable to fixed-term contracts for most people. One could have expected a longer waiting line, and therefore a lower callback rate, for open-contracts. However, it is possible that we observe no difference because low-skill applicants like the ones in our experiment, who face very strong barriers to accessing any type of employment, decide not to be selective and to apply to all jobs. Hence, the waiting line also becomes longer for fixed-term contracts, which explains the similar callback rates we observe for applications to open-ended and to fixed-term jobs.

#### 4.5 The impact of local labor market conditions

So far, we have found that only training leading to a certification of skills significantly raises callback rates among all types of applicants who have some employment experience. A possible interpretation is that an important obstacle to getting a job is the insufficient level of skills among our applicants, who compete with more qualified and experienced candidates on markets where there is a strong excess of labor supply. Our candidates who acquired a vocational degree are in a better position to compete. However, their vocational degree corresponds to the



Table 6: The Effect of Having Been Employed in Subsidized Jobs vs. Non-Subsidized Jobs on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants	Gardener	Receptionist	
<i>Panel A (All job offers)</i>				
Non-subsidized employment	.017* .009	-.001 .011	.006 .018	-.005 .011
Subsidized employment	.021*** .008	.005 .009	.009 .015	.003 .009
Constant (ref: unemployed)	.061*** .012	.059*** .012	.104*** .021	.021* .011
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Adj-R <sup>2</sup>	.038	.050	.071	.040
<i>Panel B (Market sector job offers)</i>				
Non-subsidized employment	.019* .010	.002 .012	.011 .019	-.005 .013
Subsidized employment	.019*** .008	.004 .009	.015 .017	-.004 .009
Constant (ref: unemployed)	.052*** .012	.050*** .012	.084*** .022	.018 .012
Certified skills	no	yes	yes	yes
N	4,236	4,236	2,104	2,132
Adj-R <sup>2</sup>	.046	.047	.081	.066
<i>Panel C (Non-market sector job offers)</i>				
Non-subsidized employment	.011 .021	-.012 .026	.006 .045	-.013 .025
Subsidized employment	.024 .019	.003 .020	-.006 .034	.029 .025
Constant (ref: unemployed)	.106** .041	.102** .041	.200*** .075	.047 .035
Certified skills	no	yes	yes	yes
N	1,152	1,152	616	536
Adj-R <sup>2</sup>	.125	.128	.176	.160

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback. Subsidized employment comprises all applications of applicants who were employed on subsidized jobs in the market or non-market sector, with or without skill certification. Non-subsidized jobs comprises all applications of applicants who were employed on non-subsidized jobs in the market or non-market sector, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 7: The Effect of Having Been Employed in Non-Market Jobs vs. Market Jobs on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants	Gardener	Receptionist	
<i>Panel A (All job offers)</i>				
Market sector experience	.016** .008	.002 .009	.005 .015	.001 .010
Non-market sector experience	.021*** .008	.003 .010	.012 .017	-.001 .010
Constant (ref: unemployed)	.061*** .012	.059*** .012	.105*** .021	.021* .011
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Adj-R <sup>2</sup>	.038	.040	.071	.040
<i>Panel B (Market sector job offers)</i>				
Market sector experience	.014 .008	.000 .010	.003 .016	-.002 .011
Non-market sector experience	.024** .010	.008 .011	.029 .020	-.008 .010
Constant (ref: unemployed)	.052*** .012	.051*** .012	.086*** .022	.018 .012
Certified skills	no	yes	yes	yes
N	4,236	4,236	2,104	2,132
Adj-R <sup>2</sup>	.046	.048	.081	.066
<i>Panel C (Non-market sector job offers)</i>				
Market sector experience	.024 .021	.005 .023	.020 .040	.001 .022
Non-market sector experience	.014 .019	-.012 .023	-.031 .038	.024 .028
Constant (ref: unemployed)	.105** .041	.102** .041	.195** .075	.046 .036
Certified skills	no	yes	yes	yes
N	1,152	1,152	616	536
Adj-R <sup>2</sup>	.125	.128	.178	.158

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback. Market employment comprises all applications of applicants who were employed in the market sector, on subsidized or non subsidized jobs, with or without skill certification. Non-market employment comprises all applications of applicants who were employed in the non-market sector, on subsidized or non subsidized jobs, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 8: The Effect of Subsidized and Non-Market Job Experience on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants	Gardener	Receptionist	
<i>Panel A (All job offers)</i>				
Non-subsidized market sector experience	.010 .013	-.002 .013	-.007 .022	.001 .015
Non-subsidized non-market sector experience	.021* .012	-.000 .013	.019 .023	-.009 .014
Subsidized non-market sector experience	.022* .011	.007 .012	.008 .020	.006 .013
Subsidized market sector experience	.020** .010	.004 .011	.013 .018	-.000 .012
Constant (ref:unemployment)	.060*** .012	.059*** .012	.103*** .021	.021* .011
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Adj-R <sup>2</sup>	.038	.040	.071	.040
<i>Panel B (Market sector job offers)</i>				
Non-subsidized market sector experience	.013 .013	.001 .014	-.010 .022	.007 .018
Non-subsidized non-market sector experience	.023* .013	.003 .015	.033 .026	-.017 .015
Subsidized non-market sector experience	.026** .013	.012 .013	.027 .023	-.001 .013
Subsidized market sector experience	.014 .010	-.001 .012	.013 .020	-.008 .012
Constant (ref:unemployment)	.052*** .012	.051*** .012	.084*** .022	.019 .012
Certified skills	no	yes	yes	yes
N	4,236	4,236	2,104	2,132
Adj-R <sup>2</sup>	.046	.048	.082	.067
<i>Panel C (Non-market sector job offers)</i>				
Non-subsidized market sector experience	.005 .036	-.009 .038	.039 .067	-.054** .023
Non-subsidized non-market sector experience	.015 .026	-.014 .030	-.024 .055	.014 .034
Subsidized non-market sector experience	.012 .027	-.009 .029	-.038 .043	.036 .041
Subsidized market sector experience	.034 .025	.012 .026	.011 .043	.027 .031
Constant (ref:unemployment)	.103** .041	.100*** .041	.196*** .075	.045 .035
Certified skills	no	yes	yes	yes
N	1,152	1,152	616	536
Adj-R <sup>2</sup>	.126	.128	.179	.164

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback.

Non-subsidized market sector experience comprises all applications of applicants who were employed in the market sector, on non-subsidized jobs, with or without skill certification. Non-subsidized non-market sector experience comprises all applications of applicants who were employed in the non-market sector, on non-subsidized jobs, with or without skill certification. Subsidized non-market sector experience comprises all applications of applicants who were employed in the non-market sector, on subsidized jobs, with or without skill certification. Subsidized market sector experience comprises all applications of applicants who were employed in the market sector, on subsidized jobs, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 9: The Effect of Job Characteristics on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants		Gardener	Receptionist
Market job offer	-.035*** .012	-.036*** .012	-.061*** .020	.000 .013
Fixed-term contract	.010 .010	.010 .010	.000 .017	.019* .011
Constant	.085*** .018	.075*** .018	.150*** .032	.001* .017
Certified skills	no	yes	yes	yes
N	5, 150	5, 150	2, 570	2, 580
Adj-R <sup>2</sup>	.039	.042	.075	.043

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback. Market job is an indicator variable equal to one if the job offer belongs to the market sector. Fixed-term contract is an indicator variable equal to 1 if the job offer is a fixed-term contract. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. All columns include department and month fixed effects. The total number of observations is slightly lower compared with the previous tables because the market / non-market status was missing for some job offers. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

lowest level in the National Classification of Levels of Training (*titre professionnel* of level V). Therefore, the advantage provided by their degree should significantly decline when the number of other candidates increases, which is the case when the unemployment rate is higher. Table 10 reports the impact of skill certification according to the unemployment rate at the level of the commuting zone<sup>14</sup> where the job offer was posted. It is clear that training accompanied by skill certification significantly improves the callback rate only when the local unemployment rate is sufficiently low.<sup>15</sup> The effect of training wanes very quickly and becomes non-significant as soon as the unemployment rate exceeds 9.31 percent (which is below the national average of 9.58 percent).

In order to check for the robustness of our results, we also use the average callback rate of our applicants by commuting zone as a measure of local labor market conditions. Commuting zones where local unemployment is higher have lower average callback rate.<sup>16</sup> Results, displayed

<sup>14</sup>We use “*zone d’emploi*” as defined by INSEE, the French National Statistical Office. There are 277 commuting zones in our sample.

<sup>15</sup>We find no systematic pattern based on local labor market conditions concerning the effect of other outcomes, such as subsidized or non-market work sector experience, on the probability of callback.

<sup>16</sup>One point of unemployment rate at the commuting zone level decreases the callback rate by 0.007 points, which represents a 9% decrease on average of the callback rate (the average callback rate is 0.080). The regression coefficient is negative and statistically significant at the 1% level.

Table 10: The Effect of Certified Skills on Probability of Callback by Quintile of Unemployment Rate of the Commuting Zone where the Job was Posted

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Q1	Q2	Q3	Q4	Q5
Certified skills	.034*** .009	.074*** .023	.038* .021	.026 .019	.024 .018	.012 .017
Constant	.060*** .012	.046 .028	.114*** .035	.052** .020	.083** .035	.030* .017
Unemployment rate						
Mean	9.58	7.40	8.59	9.31	10.34	12.52
Min	5.45	5.45	8.20	8.95	9.90	10.90
Max	17.60	8.15	8.90	9.80	10.85	17.60
N	5,144	1,078	996	1,020	1,114	936
Adj-R <sup>2</sup>	.040	.076	.071	.106	.059	.056

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. QX stands for the number of the quintile of the unemployment rate of the commuting zone of the job offer. Mean, Min and Max denote the mean, the minimum and the maximum value of the quintile of the unemployment rate of the commuting zone respectively. The total number of observations is slightly lower compared with the previous tables because the employment zone was not identified for some job offers. The regressions include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

in Table 11, corroborate those derived from using the unemployment rate as a proxy for local labor market conditions. The effect of training is higher in areas where the average callback rate is also higher. Put differently, in areas with low callback rates, which also correspond to higher unemployment rates, employers appear to be insensitive to the accrued qualification of the applicants. Skill certification, at least at the basic level at which our applicants get it, may well be considered insufficient by potential employers to trigger hiring decisions when excess of labor supply is very large.

## 5 Conclusion

This article reports results from a field experiment studying the impact of individual pathways with various forms of labor market experience for youth who dropped out of high school. Our results indicate that the likelihood of receiving a callback from employers sharply improves when youth get a certification of their skills. Other pathways in the labor market seem unable to improve the employment outlook of unskilled youth. Notably, subsidized or non-subsidized

Table 11: The Effect of Certified Skills on Probability of Callback by Quintile of Callback Rate of the Commuting Zone where the Job was Posted

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Q1	Q2	Q3	Q4	Q5
Certified skills	.034*** .009	.003 .003	.023 .014	.028 .023	.053** .024	.071** .030
Constant	.060*** .012	-.002 .002	.019 .015	.077** .033	.104** .043	.145*** .042
Callback rate						
Mean	.080	.001	.050	.074	.101	.200
Min	.000	.000	.027	.065	.081	.127
Max	1.000	.022	.062	.079	.125	1.000
N	5,388	1,128	1,424	858	1,026	952
Adj-R <sup>2</sup>	.040	.031	.019	.058	.015	.083

Note: The dependent variable is a dummy variable equal to 1 if the application gets a callback. Certified skills is an indicator variable equal to 1 if the applicant has a skill certification. QX stands for the number of the quintile of the callback rate of the commuting zone of the job offer. Mean, Min and Max denote the mean, the minimum and the maximum value of the quintile of the callback rate of the commuting zone respectively. The regressions include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

work experience, either in the market or non-market sector, even for a cumulated period of 3 years, does not significantly improve the chances of being contacted by employers compared with an unemployment spell of the same duration. This result is consistent with previous research showing that accruing work experience, even in the market sector, is not always sufficient to get callbacks more frequently. It suggests that employment support measures, such as temporary jobs in the non-market sector or hiring subsidies in the market sector, should be conditional on getting a certification of skills at the end of the employment period, at least for previously unskilled youth.

The effect of skill certification is more pronounced in tight labor markets where the unemployment rate is low. This result suggests that additional measures supporting the geographical mobility of youth could add important leverage to the employment effect of training. Our test cannot, however, measure the full potential effects of training on employment, such as job stability or job quality, which are typically identified in the longer-run (Card et al. 2010, 2015). Also, in terms of external validity, the very fact of obtaining a certification may not have the same value for employers in different countries. French employers may be more appreciative of

the degree itself, as it conveys a positive message about the candidates' abilities, while their foreign counterparts may react primarily to actual skills observed upon meeting with the candidate. In this respect, employers from other cultures may not consider the mere acquisition of a training certification as a sufficient signal regarding the candidate's real work capacities. Similarly, our results cannot capture the full employment effect of activities that improve the social networks of young people. It is likely, for instance, that work experience notably in the market sector helps job seekers direct their search in a more effective manner thanks to counseling and direct recommendations.

Last, the results in our experiment suggest several additional areas for future research. First, we have focused on some of the most common occupations of low skilled youth in subsidized employment— receptionists and gardeners. We think it would be useful to examine whether our results generalize to other types of occupations, some of which could be less sensitive to local unemployment conditions. Second, our fictitious candidates' applications were sent by email to job offers available online on the public employment service's website and on a few private websites. To the extent that employers relying on this channel may be more selective or have different expectations than employers who recruit through their acquaintances or private networks, it would be opportune for future studies to explore alternative application methods. Sending spontaneous job applications may be appropriate in order to examine if there is any selection problem related to the chosen recruitment channel. Third, we focused entirely on unskilled youth. We suspect that the effect of skill certification, and hence the return to public programs, should be decreasing with the initial level of education. Finally, we focused only on employment-related pathways. As a result we cannot compare the effect of a certification of skills acquired mostly on the job, with other forms of training available for young people, such as apprenticeship or comprehensive second-chance programs. Future audit studies should explore what type of training is most efficient in improving the chances of callback for a given level of certification.

## References

- [1] Autor, D. H., Houseman, S., and S. Pekkala Kerr, 2017, The Effect of Work First Job Placements on the Distribution of Earnings: An Instrumental Variables Quantile Regression Approach, *Journal of Labor Economics*, 35(1), 149-190.
- [2] Benoteau, I., 2015, Quels effets du recrutement en contrat aidé sur la trajectoire professionnelle ? Une évaluation à partir du Panel 2008 de la Dares, Dares Document d'études n° 192.
- [3] Card, D., Kluve, J. and A. Weber, 2010, Active Labour Market Policy Evaluations: A Meta-analysis, *Economic Journal*, 120 (548): F452-F477.
- [4] Card, D., Kluve, J. and A. Weber, 2015, What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations, IZA Discussion Paper No. 9236.
- [5] Dares, 2014, Les contrats d'aide à l'emploi en 2013. Forte hausse de la part des jeunes, sous l'effet du déploiement des emplois d'avenir, Dares Analyses 2014-093.
- [6] Dares, 2015, Les contrats uniques d'insertion et les emplois d'avenir en 2014. Des bénéficiaires plus nombreux malgré des recrutements en baisse, Dares Analyses 2015-064.
- [7] Dares, 2016a, Les contrats uniques d'insertion et les emplois d'avenir en 2015. Des recrutements en hausse mais moins ciblés, Dares Analyses 2016-047.
- [8] Dares, 2016b, Les jeunes en emploi d'avenir : quel accès à la formation, pour quels bénéficiaires ?, Dares Analyses 2016-056.
- [9] Eriksson, S. and D.-O. Rooth, 2014. Do Employers Use Unemployment as a Sorting Criterion When Hiring? Evidence from a Field Experiment, *American Economic Review*, 104(3): 1014-39.
- [10] Farber, Henry S., Dan Silverman, and Till von Wachter, 2016. Determinants of Callbacks to Job Applications: An Audit Study, *American Economic Review*, 106(5): 314-18.
- [11] Fremigacci, F., Le Gall, R., L'Horty, Y. and P. Petit, 2016, Le Conformisme Des Recruteurs : Une Expérience Controlée, Document de travail, TEPP.



- [12] Ghayad, R., 2013, The Jobless Trap, Job Market Paper, pages 1-39.
- [13] Hujer, R., Caliendo, M. and S. L. Thomsen, 2004, New Evidence on the Effects of Job Creation Schemes in Germany - A Matching Approach with Threefold Heterogeneity, *Research in Economics*, 58 (4), 257-302.
- [14] Kluve, J. and C.M. Schmidt, 2002, Can training and employment subsidies combat European unemployment?, *Economic Policy*, vol. 35, pp. 409-448.
- [15] Kluve, J., 2010, The Effectiveness of European Active Labor Market Programs, *Labour Economics*, 17: 904-918.
- [16] Nunley, J. M., Pugh, A., Romero, N. and R. Alan Seals, 2016, The Effects of Unemployment and Underemployment on Employment Opportunities, *ILR Review*.
- [17] OECD, 2016, Society at a Glance 2016: OECD Social Indicators, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/9789264261488-en>.
- [18] Sianesi, B., 2002, Swedish active labour market programs in the 1990s: overall effectiveness and differential performance, IFS Working Papers W02/03.

## 6 Appendix

### 6.1 Robustness check

This appendix reproduces the main analyses based on an alternative and more restrictive definition of the callback rate whereby only calls for setting interviews are considered a positive answer (thus, demands for further information are null, like the absence of callback).

Table 12: Callback Rate Descriptive Statistics

<i>Dependent variable: Received callback for interview</i>	Mean	Std. deviation
<i>Résumé attributes</i>		
All applicants	.045	.208
Unemployed, no job experience at all	.039	.194
Unemployed, 1 temporary job	.037	.191
Unemployed, 2 temporary jobs	.043	.203
Unemployed, 3 temporary jobs	.037	.189
Employed, market, subsidized, certified skills	.06	.237
Employed, market, non-subsidized, certified skills	.027	.165
Employed, market, subsidized, no certified skills	.050	.219
Employed, market, non-subsidized, no certified skills	.043	.204
Employed, non-market, subsidized, certified skills	.098	.298
Employed, non-market, non-subsidized, certified skills	.053	.226
Employed, non-market, subsidized, no certified skills	.031	.175
Employed, non-market, non-subsidized, no certified skills	.027	.163
<i>Job characteristics</i>		
Gardener position	.070	.255
Receptionist position	.020	.140
Job in the non-market sector	.061	.240
Job in the market sector	.041	.199
Job in the public sector	.069	.254
Job in the private sector	.042	.200

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the first column of the table reports the mean value of the primary dependent variable which is equal to 1 if the résumé received a callback from the employer explicitly asking to set up an interview and to zero otherwise. The second column reports the standard deviation of this variable.

Table 13: The Effect of Individual Pathway on Probability of Callback

Dependent variable: Received a callback for an interview		(1)	(2)	(3)	(4)
		All applicants		Gardener	Receptionist
(1)	Unemployed, 1 temporary job	-.002 .009	-.001 .009	.001 .016	-.003 .008
(2)	Unemployed, 2 temporary jobs	.003 .011	-.000 .011	.001 .020	.003 .011
(3)	Unemployed, 3 temporary jobs	-.004 .011	-.001 .011	-.006 .018	.013 .011
(4)	Employed, market, subsidized, certified skills	.021* .012	.020 .012	.019 .019	.020 .015
(5)	Employed, market, non-subsidized, certified skills	-.013 .014	-.010 .014	-.039* .023	.017 .018
(6)	Employed, market, subsidized, no certified skills	.012 .012	.014 .012	.023 .021	.013 .012
(7)	Employed, market, non-subsidized, no certified skills	.003 .013	.004 .013	.010 .023	-.009 .010
(8)	Employed, non-market, subsidized, certified skills	.055*** .018	.056*** .018	.057** .028	.047** .020
(9)	Employed, non-market, non-subsidized, certified skills	.013 .015	.015 .012	.020 .020	.014 .013
(10)	Employed, non-market, subsidized, no certified skills	-.010 .011	-.010 .011	.004 .022	-.016** .007
(11)	Employed, non-market, non-subsidized, no certified skills	-.014 .013	-.012 .013	-.004 .027	-.012* .007
(12)	Constant (ref: unemployed, no job experience at all)	.031*** .010	.030*** .010	.055*** .018	.006** .009
	N	5,388	5,388	2,720	2,668
	Adj-R <sup>2</sup>	.009	.046	.072	.059
	Department fixed effects	no	yes	yes	yes
	Month fixed effects	yes	yes	yes	yes

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is a dummy variable equal to 1 if the application gets a callback asking for an interview. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 14: The Effect of Skills Certification on Probability of Callback

	(1)	(3)	(4)
	All applicants	Gardener	Receptionist
Employment without certified skills	.002 .006	.011 .012	-.006 .005
Employment with certified skills	.023*** .007	.022** .011	.021*** .008
Constant (ref: unemployed)	.029*** .008	.054*** .015	.007 .007
N	5,388	2,720	2,668
Adj-R <sup>2</sup>	.042	.068	.054

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is an indicator variable equal to 1 if the application gets a callback asking for an interview. Employment with certified skills comprises all applications of applicants who were employed on jobs in the market or non-market sector, with or without subsidy, which offered skill certification. Employment without certified skills comprises all applications of applicants who were employed on jobs in the market or non-market sector, with or without subsidy, which did not offer skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 15: The Effect of Having Been Employed in Subsidized Jobs vs. Non-subsidized Jobs on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants	Gardener	Receptionist	
<i>Panel A (All job offers)</i>				
Non-subsidized employment	.003 .007	-.009 .008	-.001 .014	-.015** .007
Subsidized employment	.019*** .006	.008 .007	.020 .013	-.001 .006
Constant (ref: unemployed)	.030*** .008	.029*** .008	.053*** .015	.007 .007
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Adj-R <sup>2</sup>	.042	.043	.069	.055
<i>Panel B (Market sector job offers)</i>				
Non-subsidized employment	.001 .007	-.010 .009	-.001 .015	-.017** .008
Subsidized employment	.017*** .007	.008 .008	.021 .014	-.004 .006
Constant (ref: unemployed)	.024*** .008	.023*** .008	.040** .016	.005 .007
Certified skills	no	yes	yes	yes
N	4,236	4,236	2,104	2,132
Adj-R <sup>2</sup>	.052	.053	.087	.090
<i>Panel C (Non-market sector job offers)</i>				
Non-subsidized employment	.010 .017	-.008 .021	.004 .040	-.010 .015
Subsidized employment	.025 .016	.008 .016	.015 .030	.014 .015
Constant (ref: unemployed)	.064** .026	.061** .026	.099** .046	.043 .030
Certified skills	no	yes	yes	yes
N	1,152	1,152	616	536
Adj-R <sup>2</sup>	.111	.114	.143	.181

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is an indicator variable equal to 1 if the application gets a callback asking for an interview. Subsidized employment comprises all applications of applicants who were employed on subsidized jobs in the market or non-market sector, with or without skill certification. Non-subsidized jobs comprises all applications of applicants who were employed on non-subsidized jobs in the market or non-market sector, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 16: The Effect of Having Been Employed in Non-Market Jobs vs. Market Jobs on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants	Gardener	Receptionist	
<i>Panel A (All job offers)</i>				
Market sector experience	.011* .006	.002 .007	.008 .013	-.004 .007
Non-market sector experience	.013** .007	.001 .007	.016 .014	-.004 .007
Constant (ref: unemployed)	.030*** .008	.029*** .008	.054*** .015	.007 .007
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Adj-R <sup>2</sup>	.041	.042	.069	.054
<i>Panel B (Market sector job offers)</i>				
Market sector experience	.004 .007	-.004 .008	-.000 .014	-.007 .007
Non-market sector experience	.017** .008	.007 .009	.030* .016	-.012* .006
Constant (ref: unemployed)	.025** .008	.024** .008	.043*** .016	.006 .007
Certified skills	no	yes	yes	yes
N	4,236	4,236	2,104	2,132
Adj-R <sup>2</sup>	.051	.052	.088	.089
<i>Panel C (Non-market sector job offers)</i>				
Market sector experience	.034* .019	.018 .021	.035 .037	.009 .017
Non-market sector experience	.005 .015	-.017 .015	-.021 .029	-.002 .013
Constant (ref: unemployed)	.062** .026	.059** .026	.095** .046	.041 .031
Certified skills	no	yes	yes	yes
N	1,152	1,152	616	536
Adj-R <sup>2</sup>	.112	.115	.147	.179

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is an indicator equal to 1 if the application gets a callback asking for an interview. Market employment comprises all applications of applicants who were employed in the market sector, on subsidized or non subsidized jobs, with or without skill certification. Non-market employment comprises all applications of applicants who were employed in the non-market sector, on subsidized or non subsidized jobs, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 17: The Effect of Subsidized and Non-Market Job Experience on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants	Gardener	Receptionist	
<i>Panel A (All job offers)</i>				
Non-subsidized market sector experience	-.001 .009	-.009 .010	-.009 .017	-.013 .009
Non-subsidized non-market sector experience	.006 .009	-.009 .010	.007 .018	-.016* .008
Subsidized non-market sector experience	.021** .010	.010 .009	.026* .017	-.003 .008
Subsidized market sector experience	.018** .008	.007 .009	.017 .016	.001 .009
Constant (ref:unemployment)	.030*** .008	.029*** .008	.054*** .015	.007 .007
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Adj-R <sup>2</sup>	.042	.043	.069	.055
<i>Panel B (Market sector job offers)</i>				
Non-subsidized market sector experience	-.006 .009	-.014 .010	-.019 .016	-.012 .011
Non-subsidized non-market sector experience	.007 .010	-.006 .012	.018 .022	-.022** .009
Subsidized non-market sector experience	.027** .011	.018* .011	.042** .020	-.004 .009
Subsidized market sector experience	.010 .008	.001 .009	.010 .017	-.005 .009
Constant (ref:unemployment)	.025*** .008	.024*** .008	.042*** .016	.006 .007
Certified skills	no	yes	yes	yes
N	4,236	4,236	2,104	2,132
Adj-R <sup>2</sup>	.053	.054	.089	.090
<i>Panel C (Non-market sector job offers)</i>				
Non-subsidized market sector experience	.026 .030	.013 .033	.051 .060	-.020** .010
Non-subsidized non-market sector experience	.001 .019	-.025 .020	-.037 .038	-.004 .023
Subsidized non-market sector experience	.009 .020	-.010 .019	-.011 .034	.002 .020
Subsidized market sector experience	.038* .022	.019 .023	.025 .040	.024 .025
Constant (ref:unemployment)	.062*** .026	.059** .026	.097** .046	.040 .030
Certified skills	no	yes	yes	yes
N	1,152	1,152	616	536
Adj-R <sup>2</sup>	.112	.116	.148	.182

Note: The dependent variable is an indicator variable equal to 1 if the application gets a callback asking for an interview and zero in all other cases. Non-subsidized market sector experience comprises all applications of applicants who were employed in the market sector, on non-subsidized jobs, with or without skill certification. Non-subsidized non-market sector experience comprises all applications of applicants who were employed in the non-market sector, on non-subsidized jobs, with or without skill certification. Subsidized non-market sector experience comprises all applications of applicants who were employed in the non-market sector, on subsidized jobs, with or without skill certification. Subsidized market sector experience comprises all applications of applicants who were employed in the market sector, on subsidized jobs, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. All columns include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent. \*\* significant at 5 percent. \*\*\* significant at 1 percent.

Table 18: The Effect of Job Characteristics on Probability of Callback

	(1)	(2)	(3)	(4)
	All applicants		Gardener	Receptionist
Market job offer	-.019** .009	-.019** .009	-.034** .015	.000 .009
Fixed-term contract	.004 .007	.004 .007	.014 .013	-.005 .008
Constant	.050*** .013	.043*** .013	.078*** .023	.009** .012
Certified skills	no	yes	yes	yes
N	5,150	5,150	2,570	2,580
Adj-R <sup>2</sup>	.043	.046	.074	.056

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is an indicator variable equal to 1 if the application gets a callback asking for an interview. Market job is an indicator variable to 1 if the job offer belongs to the market sector. Fixed-term contract is an indicator variable equal to 1 if the job offer is a fixed-term contract. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. All columns include department and month fixed effects. The total number of observations is slightly lower compared with the previous tables because the market / non-market status was missing for some job offers. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.



Table 19: The Effect of Certified Skills on Probability of Callback by Quintile of Unemployment Rate of the Commuting Zone where the Job was Posted

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Q1	Q2	Q3	Q4	Q5
Certified skills	.022*** .007	.050*** .019	.016 .016	.027* .016	.024 .015	.004 .014
Constant	.030*** .008	.032 .021	.059*** .022	.030** .015	.021 .021	.014 .013
Unemployment rate						
Mean	9.58	7.40	8.59	9.31	10.34	12.52
Min	5.45	5.45	8.20	8.95	9.90	10.90
Max	17.60	8.15	8.90	9.80	10.85	17.60
N	5,388	1,078	996	1,020	1,114	936
Adj-R <sup>2</sup>	.042	.069	.079	.119	.036	.070

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is an indicator variable equal to 1 if the application gets a callback asking for an interview. Certified skills is an indicator variable equal to 1 if the applicant has certified skills. QX stands for the number of the quintile of the unemployment rate of the commuting zone of the job offer. Mean, Min and Max denote the mean, the minimum and the maximum value of the quintile of the unemployment rate of the commuting zone respectively. The total number of observations is slightly lower compared with the previous tables because the employment zone was not identified for some job offers. The regressions include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 20: The Effect of Certified Skills on Probability of Callback by Quintile of Callback Rate of the Commuting Zone where the Job was Posted

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Q1	Q2	Q3	Q4	Q5
Certified skills	.022*** .007	.000 .	-.005 .014	.039** .015	.035* .018	.046* .025
Constant	.008*** .003	.000 .	-.001 .008	.017 .015	.041 .028	.107*** .030
Callback rate						
Mean	.045	.000	.019	.035	.053	.134
Min	.000	.000	.011	.027	.039	.067
Max	.750	.000	.027	.038	.066	.750
N	5,388	1,544	664	1200	936	1,044
Adj-R <sup>2</sup>	.042	.	.047	.029	.023	.071

Note: In this table we consider that the callback variable equals 1 if an interview is requested and zero in all other cases. Thus, the dependent variable is an indicator variable equal to 1 if the application gets a callback asking for an interview. Certified skills is an indicator variable equal to 1 if the applicant has certified skills. QX stands for the number of the quintile of the callback rate of the commuting zone of the job offer. Mean, Min and Max denote the mean, the minimum and the maximum value of the quintile of the callback rate of the commuting zone respectively. The regressions include department and month fixed effects. Robust standard errors are clustered at the job level and reported below the coefficients. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

## 6.2 Probit model

This appendix reports the estimated marginal effects at means of the Probit model of the relations presented in tables 4 to 11.

Table 21: The Effect of Individual Pathway on Probability of Callback (Marginal Effects at the Mean)

Dependent variable: Received a callback		(1)	(2)	(3)
		All applicants	Gardener	Receptionist
(1)	Unemployed, 1 temporary job	.009 .013	.007 .022	.015 .015
(2)	Unemployed, 2 temporary jobs	.004 .015	.014 .025	.005 .017
(3)	Unemployed, 3 temporary jobs	-.020 .016	-.023 .027	-.006 .018
(4)	Employed, market, subsidized, certified skills	.035** .014	.044* .023	.027* .015
(5)	Employed, market, non-subsidized, certified skills	.002 .023	-.035 .043	.034* .020
(6)	Employed, market, subsidized, no certified skills	-.000 .016	-.005 .027	.014 .017
(7)	Employed, market, non-subsidized, no certified skills	.013 .018	.019 .028	.005 .021
(8)	Employed, non-market, subsidized, certified skills	.047*** .015	.048* .026	.046*** .019
(9)	Employed, non-market, non-subsidized, certified skills	.030** .015	.038 .024	.024 .017
(10)	Employed, non-market, subsidized, no certified skills	-.002 .017	-.002 .029	.007 .016
(11)	Employed, non-market, non-subsidized, no certified skills	-.002 .020	.021 .032	-.024 .028
	N	5,388	2,720	2,668
	Pseudo R <sup>2</sup>	.007	.006	.016

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 22: The Effect of Certification of Skills on Probability of Callback (Marginal Effects at the Mean)

	(1)	(3)	(4)
	All applicants	Gardener	Receptionist
Employment without certified skills	.002 .008	.006 .014	.001 .009
Employment with certified skills	.033*** .008	.035*** .013	.027*** .008
N	5,388	2,720	2,668
Pseudo R <sup>2</sup>	.005	.003	.010

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Employment with certified skills comprises all applications of applicants who were employed on jobs in the market or non-market sector, with or without subsidy, which offered skill certification. Employment without certified skills comprises all applications of applicants who were employed on jobs in the market or non-market sector, with or without subsidy, which did not offer skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 23: The Effect of Having Been Employed in Subsidized Jobs vs. Non-subsidized Jobs on Probability of Callback (Marginal Effects at the Mean)

	(1)	(2)	(3)	(4)
	All applicants		Gardener	Receptionist
Non-subsidized employment	.016* .009	-.002 .011	.004 .017	-.007 .012
Subsidized employment	.021*** .007	.005 .009	.007 .015	.005 .009
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Pseudo R <sup>2</sup>	.002	.005	.003	.011

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Subsidized employment comprises all applications of applicants who were employed on subsidized jobs in the market or non-market sector, with or without skill certification. Non-subsidized jobs comprises all applications of applicants who were employed on non-subsidized jobs in the market or non-market sector, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 24: The Effect of Having Been Employed in Non-Market Jobs vs. Market Jobs on Probability of Callback (Marginal Effects at the Mean)

	(1)	(2)	(3)	(4)
	All applicants		Gardener	Receptionist
Market sector experience	016.** .008	.001 .009	.002 .016	.002 .010
Non-market sector experience	.022*** .008	.004 .010	.011 .017	-.001 .010
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Pseudo R <sup>2</sup>	.002	.005	.003	.010

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Market employment comprises all applications of applicants who were employed in the market sector, on subsidized or non subsidized jobs, with or without skill certification. Non-market employment comprises all applications of applicants who were employed in the non-market sector, on subsidized or non subsidized jobs, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 25: The Effect of Subsidized and Non-Market Job Experience on Probability of Callback (Marginal Effects at the Mean)

	(1)	(2)	(3)	(4)
	All applicants		Gardener	Receptionist
Non-subsidized market sector experience	.009 .013	-.003 .014	-.006 .023	.000 .014
Non-subsidized non-market sector experience	.021* .011	-.004 .013	.017 .022	-.014 .014
Subsidized non-market sector experience	.024** .010	.008 .012	.010 .020	.008 .011
Subsidized market sector experience	.019** .009	.002 .011	.008 .018	.001 .011
Certified skills	no	yes	yes	yes
N	5,388	5,388	2,720	2,668
Pseudo R <sup>2</sup>	.002	.005	.003	.012

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Non-subsidized market sector experience comprises all applications of applicants who were employed in the market sector, on non-subsidized jobs, with or without skill certification. Non-subsidized non-market sector experience comprises all applications of applicants who were employed in the non-market sector, on non-subsidized jobs, with or without skill certification. Subsidized non-market sector experience comprises all applications of applicants who were employed in the non-market sector, on subsidized jobs, with or without skill certification. Subsidized market sector experience comprises all applications of applicants who were employed in the market sector, on subsidized jobs, with or without skill certification. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 26: The Effect of Job Characteristics on Probability of Callback (Marginal Effects at the Mean)

	(1)	(2)	(3)	(4)
	All applicants		Gardener	Receptionist
Market job offer	-.032*** .010	-.033*** .010	-.058*** .017	-.001 .011
Fixed-term contract	.013 .010	.013 .010	-.004 .016	.018* .010
Certified skills	no	yes	yes	yes
N	5,150	5,150	2,570	2,580
Pseudo R <sup>2</sup>	.006	.012	.013	.015

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Market job is an indicator variable equal to 1 if the job offer belongs to the market sector. Fixed-term contract is an indicator variable equal to 1 if the job offer is a fixed-term contract. Certified skills is an indicator variable equal to 1 if the applicant has a certified skill. The total number of observations is slightly lower compared with the previous tables because the market / non-market status was missing for some job offers. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 27: The Effect of Certified Skills on Probability of Callback by Quintile of Unemployment Rate of the Commuting Zone where the Job was Posted (Marginal Effects at the Mean)

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Q1	Q2	Q3	Q4	Q5
Certified skills	.032*** .008	.065*** .019	.033* .018	.027 .017	.021 .016	.014 .015
Unemployment rate						
Mean	9.58	7.40	8.59	9.31	10.34	12.52
Min	5.45	5.45	8.20	8.95	9.90	10.90
Max	17.60	8.15	8.90	9.80	10.85	17.60
N	5,388	5,388	996	1,020	1,114	936
Pseudo R <sup>2</sup>	.005	.014	.005	.004	.002	.002

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Certified skills is an indicator variable equal to 1 if the applicant has certified skills. QX stands for the number of the quintile of the unemployment rate of the commuting zone of the job offer. Mean, Min and Max denote the mean, the minimum and the maximum value of the quintile of the unemployment rate of the commuting zone respectively. The total number of observations is slightly lower compared with the previous tables because the employment zone was not identified for some job offers. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

Table 28: The Effect of Certified Skills on Probability of Callback by Quintile of Callback Rate of the Commuting Zone where the Job was Posted (Marginal Effects at the Mean)

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Q1	Q2	Q3	Q4	Q5
Certified skills	.032*** .008	.002 .002	.020 .012	.028 .019	.050*** .019	.074*** .027
Callback rate						
Mean	.080	.001	.050	.074	.101	.200
Min	.000	.000	.027	.065	.081	.127
Max	1.000	.022	.062	.079	.125	1.000
N	5,388	1,128	1,424	858	1,026	952
Pseudo R <sup>2</sup>	.005	.018	.004	.004	.008	.006

Note: The table reports marginal effects for the probability of receiving a callback based on probit regressions. The dependent variable is a dummy variable equal to 1 if the application gets a callback. Certified skills is an indicator variable equal to 1 if the applicant has certified skills. QX stands for the number of the quintile of the callback rate of the commuting zone of the job offer. Mean, Min and Max denote the mean, the minimum and the maximum value of the quintile of the callback rate of the commuting zone respectively. Robust standard errors are clustered at the job level and reported below the marginal effects. \* significant at 10 percent, \*\* significant at 5 percent, \*\*\* significant at 1 percent.

## 6.3 Examples of applications

### Application email messages

**For the type 1 application**, the email message was the following :

Dear Madam, Dear Sir,

Following your offer XXX for a job of YYY, I am pleased to send you my application.

Please find enclosed my cover letter and my resume.

Yours sincerely,

*ZZZ*

**For the type 2 application**, the email message was the following :

Dear Sir/Madam,

I am pleased to submit my application for the position YYY following your offer XXX published on the Pôle Emploi website.

I am sending you enclosed my CV and my cover letter.

Yours faithfully,

*ZZZ*



**Application reply email messages**

**Type 1 reply to the employer who contacted the applicant :**

Dear Madam, Dear Sir,

Thank you for your reply to my application. But the fact is, I have just accepted another employment offer.

Yours sincerely,

*ZZZ*

**Type 2 reply to the employer who contacted the applicant :**

Dear Sir/Madam,

Thank you for your interest in my application. However, I cannot follow it up, as I have just accepted another job proposal.

Yours faithfully,

*ZZZ*

*CV Receptionnist- Unemployed, 3 summer jobs*

**Mathieu Richard**

3, rue d'Ypres  
01000 Bourg-en-Bresse  
06 26 26 93 40  
[mathieu.rchd@gmail.com](mailto:mathieu.rchd@gmail.com)

Born on 05/06/1992  
Single

Driving license: B

**PROFESSIONAL SKILLS**

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Good social skills, document monitoring, good computer skills, communication skills with various audiences

**PROFESSIONAL EXPERIENCES**

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11/12 - 11/15 (Volunteer): Receptionist, Sports Association Sport in the City

09/15 - 10/15 (Fixed-term contract): Salesperson, Conforama

07/14 - 08/14 (Fixed-term contract): Crew member, McDonald's

09/13 - 10/13 (Fixed-term contract): Salesperson, Conforama

**EDUCATION**

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2009-2011: Training in a "Local services, Specialization: Management of spaces open to the public" degree seeking to obtain the professional Baccalaureate

2009: Middle-school Certificate

**FOREIGN LANGUAGES**

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English: beginner (reading + ; writing + ; speaking +)

**IT**

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General office automation tools: word processing, spreadsheets, internet

**INTERESTS**

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Handicrafts, Cinema, Sports

**Cover letter Receptionnist- Unemployed, 3 summer jobs**

Mathieu Richard  
3, rue d'Ypres  
01000 Bourg-en-Bresse  
Tel : 06 26 26 93 40  
[mathieu.rchd@gmail.com](mailto:mathieu.rchd@gmail.com)

Monday, 29 January 2016

**Object** : *Application Receptionist*

Dear Sir/Madam,

Allow me to explain why I am well suited for your position as a receptionist.

After passing my middle-school certificate, I chose to prepare a professional Baccalaureate in "Local services, Specialization: Management of spaces open to the public". This choice corresponds to my strong interest in welcoming the public. During these studies, I was able to acquire several skills: communication with the public, administrative tasks, making appointments and understanding the functioning of local services.

I then chose to pursue this path and apply this knowledge. I have held fixed-term positions as a salesperson and a team member. I also volunteered three nights a week to work as a receptionist for a sports association. This experience has been very beneficial for me. I was able to develop as part of a team and meet the expectations of the people I interacted with, both users and staff. On the other hand, I had to carry out the administrative tasks entrusted to me and to learn how to participate in the secretariat. Thus, these three years of practice gave me the opportunity to confirm my interest in this field.

I think that the skills I have developed and the experience I have acquired will allow me to respond to your expectations. I would thus be happy to meet with you and discuss my interest in this position.

Yours sincerely,  
Mathieu Richard

*CV Gardener- Employed, market, subsidized, certified skills*

**Romain Moreau**

1, rue Villeneuve  
01000 Bourg-en-Bresse  
06 46 61 96 41  
[romain.moreau.1992@gmail.com](mailto:romain.moreau.1992@gmail.com)

Born on 22/04/1992  
Single

Driving license B

**PROFESSIONAL SKILLS**

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Planting and plant cutting techniques, maintenance of lawns, plants and flowers, use of mowing machines, knowledge of soils and plants

**PROFESSIONAL EXPERIENCE**

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12/12 - 12/15 (Fixed-term Emploi d'avenir): Gardener, Blanc Mesnil Distribution

**FORMATION**

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2015: Vocational title "Landscape worker" Level V

2009-2011: Training in a "Landscaping" degree seeking to obtain the professional Baccalaureate

2009: Middle-school Certificate

**FOREIGN LANGUAGES**

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English: beginner (reading + ; writing + ; speaking +)

**INTERESTS**

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Hand-ball

Music

Volunteer in an association promoting social and cultural activities

**Cover letter Gardener- Employed, market, subsidized, certified skills**

Romain Moreau  
1, rue Villeneuve  
01000 Bourg-en-Bresse  
Tel : 06 46 61 96 41  
[romain.moreau.1992@gmail.com](mailto:romain.moreau.1992@gmail.com)

29 January 2016

**Object: Application for a Gardener Job**

Dear Madam,  
Dear Sir,

Allow me to explain why I am well suited for the position of gardener you are proposing.

After acquiring my middle-school certificate, I chose to orient myself towards the development and maintenance of landscaped spaces. I therefore did two years of training in a "Landscaping" degree in order to prepare the professional Baccalaureate. This training allowed me to acquire several skills: the implementation of earthworks, the installation of watering, as well as planting and landscaping techniques. On the other hand, I had the opportunity to work in a team and to understand the expectations of the people who were hiring me.

Today, I am pleased to have been able to benefit from a fixed-term contract in an "Emploi d'avenir" as a gardener for Blanc Mesnil Distribution. This initial experience encourages me to persevere in this field, especially as I obtained the vocational title of "Landscape Worker". At the same time, I have taken part in various sports, but also cultural and associative activities that gave me a taste for effort and commitment. I thus believe I will be able to meet your expectations and make use of my skills while working for you.

I would be delighted to meet you and would be pleased to answer any questions you may have.

Yours sincerely,  
Romain Moreau

*CV Gardener- Employed, non-market, non-subsidized, no certified skills*

## Mathieu Richard

Date of birth: 22/04/1992  
Single  
Driving license B

3, rue d'Ypres  
01000 Bourg-en-Bresse  
06 26 26 93 40  
[mathieu.richard.1992@gmail.com](mailto:mathieu.richard.1992@gmail.com)

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### TRAINING

2009-2011      Preparation of a professional Baccalaureate in "**Landscaping**"  
2009            Middle-school certificate

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### EMPLOYMENT

12/12 - 12/15    **Gardener**, Paris Habitat OPH (fixed-term contract)

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### COMPETENCIES

Knowledge of plants, planting methods, size technique and use of cutting tools, maintenance of surfaces and lawns, adaptability (climate, building sites, etc.)

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### LANGUAGES

English            Good written and oral notions

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### HOBBIES

Hand-ball  
Music  
Volunteer in an association promoting social and cultural activities

**Cover letter Gardener- Employed, non-market, non-subsidized, no certified skills**

Mathieu Richard  
3, rue d'Ypres  
01000 Bourg-en-Bresse  
06 26 26 93 40  
[mathieu.richard.1992@gmail.com](mailto:mathieu.richard.1992@gmail.com)

Monday, 29 January 2016

**Object: Gardener position application**

Dear Sir/Madam,

I recently learned your had a gardener job opening and I would be happy to answer your needs.

Following my middle-school diploma, passed successfully in 2009, I took a strong interest in landscaping. I therefore attended a degree in order to prepare a professional Baccalaureate in this field. During these studies, I learned to conceive, develop and implement landscape projects. In particular, I worked on landscape development (drainage, watering), planting and decoration, as well as the use of the required maintenance equipment. I also took an active part in several sports and associative activities that allowed me to learn how to work in a team and to develop projects.

Since the end of my studies, I have sought to enhance my skills through professional experiences. I thus had an Emploi d' Avenir open-ended contract as a gardener for Paris Habitat OPH. This experience allowed me to extend my training and sharpened my interest in gardening. I was thus able not only to deepen my theoretical knowledge but also to acquire hands-on skills by working in a team where a rotation of the tasks took place. This first experience encourages me to persevere in this field.

I am highly motivated by the prospect of continuing on this path and working with your team. I therefore stress again all my interest in your job opening.