Facebook as a source of information for recruiters : evidence from a field experiment*

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Abstract

With the advance of social network sites, employers can screen applicants' online profiles to gain additional personal information without the applicants' awareness. We investigate whether employers rely on such online information when deciding to call an applicant back for interview. During a 12-month period, we set-up a field experiment and sent more than 800 applications of two fictitious applicants that differ for a signal - their perceived origins - solely available on their Facebook profiles. A 40 % gap between the two applicants highlights that online profiles are used to screen and select applicants. For many recruiters, Facebook profiles have become a part of the application material. An unexpected change in the Facebook layout altered the display of our online signal. This natural experiment allows us to pinpoint the cause of screening, and therefore the odds of being called back for interview, within the online profile.

Keywords: Online Social Network; Labor Market; Privacy; Field experiment.
JEL Codes: D83; C93; M51.

1 Introduction

The crucial role of information in improving the quality of the employer-applicant match is well known (Stigler, 1962; Spence, 1963). Recruiters want to acquire as much information as possible, using two main sources of information: application material (resume, cover letter, etc.) and referrals or word-of-mouth (Rees, 1966; Granovetter, 1995). With the advance of the Internet, new sources of information on applicants such as Social Networks Sites (SNSs) are now easily accessible. For instance, media regularly report employees dismissals motivated by personal information disclosed on social network profiles[1] and declarative surveys document the use of SNSs by employers during hiring (Clark and Roberts, 2010). As SNSs become ubiquitous, adverse screening based on information disclosed online may increasingly impact employers-employees relationships, especially since such practices can be conducted without the applicants' awareness. In this paper, we propose an experimental setting to assess whether SNSs constitute a new reliable source of information on applicants for French recruiters. In other words, do French recruiters screen applicants' Facebook profiles and use this information to grant or deny an interview?

Our paper deals with the hiring process from the employers' perspective by testing whether employers consider SNSs as a reliable information channel about applicants. The hiring process is a central labor market mechanism and is crucial for the efficiency of the economy. The better the match between an employer and an applicant, the higher will be the employee's productivity (Autor, 2001). However, the economic literature shows that hiring is plagued by search costs and incomplete bilateral information between employers and applicants (Stigler, 1962; Spence, 1973). As a consequence, both players implement search and signaling strategies to find the best match (Rees, 1966; Salop, 1973a, 1973b; Spence, 1973; Holzer, 1987). Although there is a large literature on applicants' search and signaling strategies (Mortensen and Pissarides, 1999a), studies on the similar strategies from employers are scarcer (Granovetter, 1995; DeVaro, 2008; Oyer and Schaeffer, 2011). Employers play a central role in the functioning of the labor market and the job matching process since applicants accept almost all job offers (Barron et al., 1997). The literature on employers deals mainly with two types of employer search strategies: extensive vs. intensive, and sequential vs. non-sequential screening (Holzer, 1987; Barron et al., 1997). These search strategies could be implemented using formal or informal

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[1]Some examples of employees' dismissals related to SNSs and reported in the New York Times: http://www.nytimes.com/2013/01/22/technology/employers-social-media-policies-come-under-regulatory-scrutiny.html?pagewanted=all, or BBC: http://www.bbc.com/capital/story/20130626-can-social-media-get-you-fired

search methods (Rees, 1966; Albrecht and van Ours, 2006; van Ommeren and Russo, 2014). These two methods are associated with two main sources of information for recruiters: the formal application material (resume, cover letter, etc.) and the informal channels (referrals, word-of-mouth, etc.). In addition to these traditional sources of information, a recent trend in work on employers' search strategies investigates the use of online SNSs in hiring (Clark and Roberts, 2010; Acquisti and Fong, 2013). Our paper aims to extend these works on employers' search strategies. More particularly, we deal with the employers using a new channel, the online SNSs, to obtain information about applicants during hiring.

So far, evidence on the use of SNSs by employers relies on declarative surveys whose results show strong variation (see Clark and Roberts (2010) for examples). These variations could stem in part from the qualitative nature of these surveys (Bertrand and Mullainathan, 2001) and in part from the fact that using personal information during hiring is illegal, meaning respondents might be reluctant to truthfully answer questions about their hiring practices. To avoid declarative bias, we opt for a field experiment methodologyand create two fictitious applicants with identical resumes and application cover letters but one difference in their Facebook profiles. While the control applicant has a typically French profile, the test applicant's Facebook profile reveals Marrakesh to be his hometown and Arabic a spoken language. This signal appears only on the Facebook profile. We chose this signal because the literature on labor market discrimination shows that this characteristic negatively affects an applicant's call-back rate (Bertrand and Mullainathan (2004) for the U.S.; Duguet et al. 2005, 2010; Jacquemet et al., 2012 for France). Each applicant has a unique first-name and last-name combination to ensure that an employer searching the applicant on the Internet finds the right profile. The applicants' first names were chosen from among the most frequent French-sounding names for males of the applicants' age. Our candidates then apply for job openings for an accountant in the greater Paris area. In the usual testing methodology, two applications for a job opening are sent simultaneously and the resumes and cover letters of the two fictitious applicants are sufficiently different to avoid detection by the employer (this approach is called systematic attribution). In our case, the two applicants have identical resumes and cover letters and differ only in their name for identification, and their Facebook profile for treatment manipulation. Therefore, we send one application per job opening using the pseudo-random attribution method (see Ahmed et al., 2013; Acquisti and Fong, 2013). With this method, we control during the experiment that the two fictitious candidates are applying for similar job positions. Following the literature on hiring, we consider a call-back from the recruiter to set up

a job interview as a positive outcome. Since the two applicants are similar except for the Facebook profile displaying their hometown and languages spoken, a significant difference in call-back rate can stem only from observation by the employer of the signal that is available exclusively on the applicants' Facebook profiles.[2]

From March 2012 to March 2013, we sent more than 800 applications, evenly divided between the two applicants. The response rates for our fictitious applicants are significantly different, at respectively 16.9% for the control candidate and 12.2% for the test applicant. More precisely, the experiment could be split into two sub periods - before and after an unexpected change of Facebook layout in December 2012 that modified the signal. During the first sub-period (March 2012 to December 2012), the call-back rates show a clear and consistent gap of 8 percentage points between the control (21.3%) and test (13.4%) applicants. This difference shows that employers search for additional information on the applicant beyond the application package, and use the information found on the Facebook profile to select an applicant for a job interview. Private information on Facebook can indeed affect dramatically the odds to be called back for an interview. In our case, a small signal on the Facebook page reduced the probability to be called back by 40 %. In other words, Facebook profiles have become a part of the application material for many recruiters, and then, affect clearly the labor market functioning. In addition to this first result, we observed an exogenous change in the layout of the Facebook profile. In December 2012, information on the languages spoken by the applicant, instead of being displayed in the front page of the profile was pushed back into a tab. Shortly after this layout change, which reduced the differentiating signal, the gap between the callback rates of two candidates reduced dramatically, suggesting the existence of search cost associated with the screening of an entire Facebook profile. This search cost seems to limit the depth of employers' search for personal information.

This article is organized as follows. The first section reviews the job search literature with a special focus on employer's strategies, and presents our main hypothesis. The second section presents the field experiment and our protocol and the third presents the results of the field experiment. The final section offers some conclusions.

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[2] The main difficulty involved in testing our hypothesis is that the recruiter's online search is not an observable variable, i.e. it is impossible to know who are the viewers of a given online profile. For this reason, we set up an experiment so that viewing one or the other of our fictitious profiles translates into different call back rates, which are directly observable. Incidentally, this also explains why legal attempts to forbid online searches during hiring are difficult to implement: recruiters' behaviors are not directly observable.

2 Literature review

The hiring process is usually characterized with search costs and bilateral information asymmetries (Stigler, 1962; Spence, 1973; Salop and Salop, 1976). In this context, applicants and recruiters aim at reducing these costs and asymmetries by implementing signalling and/or search strategies, reinforcing the importance of information. These strategies have been extensively studied in the case of job seekers.[3] In contrast, employers' strategies have been far less explored despite their importance in the hiring process. In this article, we focus on employers' search strategies, and especially on their evolutions with the Internet.[4]

The literature on recruiters highlights the use of two main search strategies: extensive/intensive and sequential/non–sequential, depending on the number of screened applicants and whether the selection process is carried out continuously or sequentially (Rees, 1966; Barron et al., 1985). These strategies could be implemented through formal or informal search methods (Rees, 1966, Albrecht and van Ours, 2006; van Ommeren and Russo, 2014). Formal method refers to the use of advertisements in newspaper or employment agency, whereas informal method draws on recruiters social network. These search methods imply that recruiters use two different support/channel of information about applicants with application materials in the case of formal method (Rees, 1966), and referrals and word-of-mouth for informal methods (Granovetter, 1995). More recently, the spread of the Internet and development of online social networks has had a strong impact on employers' strategies and potentially provides a new channel of transmission of information via online profiles on SNSs.

Employers' search strategies

The literature on the employers' search strategies during hiring is more recent and rather scarce (Granovetter, 1995; DeVaro, 2008; Oyer and Schaeffer, 2011).[5] According to this literature, employers can choose between extensive search, i.e. search on a pool of applicants as large as possible, and/or intensive search, i.e. search for additional information on selected applicants (Rees, 1966; Barron et al., 1985; Holzer, 1987). Barron et al. (1985) use data such as average number of hours per applicant for recruiting, to provide evidence of the existence of such strategies. More recent work highlights

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[3] The literature on applicants' job search and signaling is large and beyond the scope of this article (see Lazear and Oyer (2007) for a good review). For theoretical approaches, see Stigler (1962), Salop (1973a, 1973b) and Spence (1973). For empirical evidence, see Stigler (1962), Rees (1966) and Holzer (1987).

[4] For the literature on employers' signaling strategies see Salop and Salop (1976), and Guasch and Weiss (1980) for theoretical models. For empirical work, one can refer to Holzer (1987) and Albrecht and van Ours (2006).

[5] See Mortensen and Pissarides (1999a, 1999b) and Rogerson et al. (2005) for surveys dealing with search models for applicants in the labor market.

an important feature of these search strategies, i.e. whether or not search is sequential. The model proposed by Burdett and Cunningham (1998) considers search to be sequential if the firm offers a job position to an applicant immediately after receipt of her application and assuming the applicant's productivity exceeds a certain threshold. If the applicant accepts the position the search process stops. Conversely, non-sequential search assumes that the firm pools a certain number of applications and then screens them, and finally offers the position to the best applicant. Empirical studies using vacancy characteristics (required education, work experience, etc.), investigate the determinants of search strategies. They show that both extensive and intensive strategies can be optimal depending on characteristics such as job seekers' strategies, vacancy duration, job characteristics, etc. (van Ommeren and Russo, 2014). However, in most of these studies, the nature of the dependent variable, namely vacancy duration, makes interpretation of the results difficult. Andrews et al. (2008) point out that a short (long) vacancy duration cannot be exactly interpreted as a sequential (non-sequential) search strategy. According to van Ommeren and Russo (2014), empirical studies highlight a strong relationship between search strategies (sequential or non sequential) and search methods (advertising, private or public agency, etc.).

Employers' search methods and channels of transmission of information

These search strategies could be implemented using formal or informal search methods (Rees, 1966; Albrecht and van Ours, 2006; van Ommeren and Russo, 2014). Formal search methods refer to the use by recruiters of advertisements and employment agency to fill a position. Informal search methods rely on information gathered or received by recruiters from their social network (friends, relatives, current or incumbent personnel, etc.). In the case of formal methods, the information consists in the application material (resume, cover letter, etc.) directly or indirectly (via e.g. employment agency) provided by the applicant (Rees, 1966). In the informal method, recruiters gather or receive information through referrals and word-of-mouth from friends, relatives or former/current employees (Albrecht and van Ours, 2006). In other words, each type of method is associated with a particular channel of information.

Formal information channels include the basic application material screened by employers to select applicants, i.e. cover letters and resumes. The information provided consists mainly of objectively verifiable information such as education, work experience, qualifications, etc. Employers can screen these documents and contact previous employers and/or school heads. During interview, if required

for the position advertised, the employer may have the opportunity to carry out additional checks such as medical examination, credit worthiness, police record, etc. (Rees, 1966; Spence, 1973; Holzer, 1987; DeVaro, 2008).

Informal information channels include information acquired from former colleagues and/or friends of the applicant through referrals and word-of-mouth (Rees, 1966; Granovetter, 1995; Montgomery, 1992, Albrecht and van Ours, 2006; van Ommeren and Russo, 2008). According to Rees (1966), former or current good employees are considered by employers as reliable source of information about potential recruits for two main reasons. First, employers anticipate that employees tend to recommend candidates with similar competences and location. Second, employees know that their referrals can impact their own reputation. As a result, they tend to recommend people who they think will be most appropriate (Sterling, 2014). Furthermore, applicants who have been recommended for a position by a friend or a relative tend to be more confident in the information provided about the position (type of work, working atmosphere, boss's behaviors, etc.). Consequently, such applicants are more able to assess whether their competences are a good fit with the position. The empirical literature underlines the complex effects of informal contacts and networks on labor outcomes due to individual, relational and employer heterogeneity (see Ionnides and Loury (2004) for a review). Since the work of Rees (1966) and Granovetter (1995), many studies highlight the importance of referrals and recommendations in hiring (Obukhova, 2013). More recent studies using newly available data (Bayer et al., 2008; DeVaro, 2008) show that informal channels of information matter as they carry reliable information that could only with difficulty spread through formal channels.

SNSs as a new source of information for recruiters?

The labor market is being heavily impacted by the advance of the Internet. Employers benefit from lower costs for advertising job openings and applicants face lower costs in searching for relevant job openings and sending applications. Overall, lower costs are expected to increase the efficiency of the labor market by improving the quality of employee-employer matching (Autor, 2001; Manning, 2011).[6] However, scholars point out that the ease of application for job seekers can result in excessive irrelevant applications which may increase employers' cost of selection (Autor, 2001; Seabright and Sen, 2014). As a consequence of the overload of formal and standardized application information, employers may turn to informal information on applicants to narrow their search.

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[6]See Pissarides (2000), and, Petrongolo and Pissarides (2001) for a canonical model that introduces the matching function but does not deal explicitly with the effect of the Internet on the labor market.

In addition to easier access to formal information on applicants, the Internet also provides new sources of information on applicants: their SNSs profiles. The wide use of SNSs is making it easy for employers to check background information about applicant (schools, current and former positions, etc.), but also to access personal information not dedicated to them (trips, friends, hobbies, opinions, etc.). In this way, SNSs could constitute a new informal source of information in addition to referrals and word-of-mouth. Unlike these sources of information, interaction with others is not required in the case of SNSs. Recruiters can check online profiles without the applicant's awareness or consent. Evidence of such practices among recruiters has been recently underlined in the literature through declarative surveys (Clark and Roberts, 2010) or field experiment on online discrimination (Acquisti and Fong, 2013).

This privacy concern raises ethical and economic issues. Most notably, there is an important discrepancy between the intent of SNSs users and that of employers. The former tend to use SNSs casually as a tool for social interaction, including recreational purposes, while the latter use them to gather personal information on applicants with direct professional consequences. This difference in the use of personal information may harm the quality of the relationship between employers and employees (Clark and Roberts, 2010). Incidentally, this new hiring practice is an illustration of the shifting boundaries between the personal and professional spheres. On an economic viewpoint, personal information disclosed online may constitute a relevant determinant of hiring decision. Apart from Acquisti and Fong (2013) for the U.S. labor market, how secondary usage of personal information impacts matching during hiring has been neglected in the literature. Following this recent strand, our paper tests whether SNSs has become a new reliable informal source of information for recruiters on applicants (see Figure 1).

3   Experimental setting: Methodology and signal

Methodology

The most direct way to establish the use of social media in hiring is asking employers. However, there is a strong declarative bias due to the legal/ethical nature of the question. To circumvent this, we set up a field experiment.

Field experiments have been used in the literature to capture employers' hiring practices. They
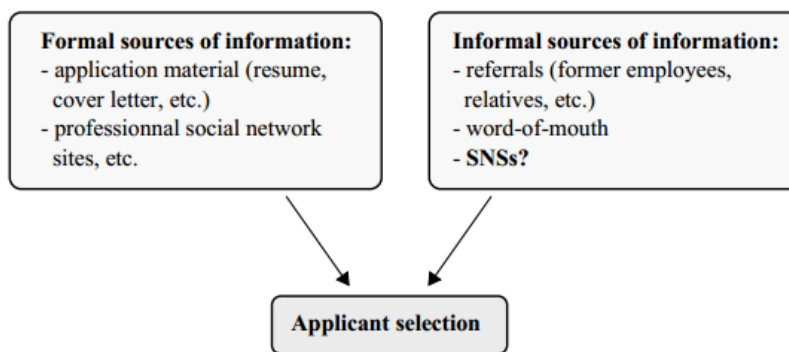
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┌─────────────────────────────┐      ┌─────────────────────────────┐
│ Formal sources of information:      │ Informal sources of information:
│ - application material (resume,     │ - referrals (former employees,
│   cover letter, etc.)               │   relatives, etc.)
│ - professionnal social network      │ - word-of-mouth
│   sites, etc.                       │ - SNSs?
└─────────────────────────────┘      └─────────────────────────────┘
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Figure 1: Sources of information about applicants

rely upon two main methodologies: situation (or audit) testing,[7] and correspondence testing. The audit approach allows to focus on employers' hiring behaviors along the multiple steps of the hiring process, i.e. i) whether they recall the candidate for an interview, ii) whether they offer the position after the interview, and iii) the wage level offered. The first audit testing was conducted by Daniel (1968).[8] One of the limitations of this approach is that it is difficult in practice to ensure similarity of applicants' performance during a face-to-face interview. Moreover, the actor's direct interaction with the employer during the interview raises strong concerns of experimenter bias (see Bertrand and Mullainathan 2004 for further discussion).

Correspondence testing involves fewer methodological issues (Riach and Rich, 2002). It allows for a higher level of control over the experimental environment, especially the content of applications. It is also less time-consuming (Bursell, 2007), and easier to rigorously reproduce. According to Bursell (2007), correspondence testing is a type of randomized experiment,[9] and therefore provides the strongest possible opportunity to draw causal inferences. The main difficulty lies in making the applications similar in all relevant aspects, so that only the tested characteristic varies between the two applications. Last, although correspondence testing reveals discrimination at the call-back stage and not at the final hiring decision stage, it has been shown that around 90% of the discrimination occurs at the call-back stage (Riach and Rich, 2002).

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[7] Audit testing consists in real persons briefed by the experimenters, usually professional actors, applying for the opening and presenting themselves to the job interview. They then act in a similar manner for every interview. The characteristics of the actors or the way they behave during the interview can thus be manipulated all other things equal.

[8] See Bursell (2007) for other labor market-related audits results and limitations.

[9] Examples of correspondence tests: in the UK (Brown and Gay, 1985; Hubbuck and Carter, 1980), in Australia (Riach and Rich, 1991), in the U.S. (Bertrand and Mullainathan, 2004) and in France (Duguet and Petit, 2005 ; Duguet et al., 2010; Jacquemet et al., 2013).

Therefore, we choose to carry out a correspondence test. However, unlike usual correspondence tests where recruiters receive at least two fictitious applications, we send one application per job opening with quasi-identical applicants. We created two fictitious applicants with identical application material (resumes and cover letters) except for one manipulated characteristic or signal. This approach has two main advantages. First, the two applicants are identical in terms of competence and experience which drastically limits potential compounds. Second, as a consequence, each recruiter receives only one application. This means that the study only marginally influences the hiring process (compared to sending multiple applications per opening) which is desirable from an ethical view point and in term of efficiency. Third, as the applications are sent to two separate samples of firms, the detection risk is non-existent. We therefore need to insure that the two applicants apply for similar positions in terms of job and firm characteristics. We do this by using job openings from the French public employment agency that provide detailed information on both the position and the firm. This point is developed in the following protocol description.

The experiment was conducted on Facebook, which is (supposed to be) a personal social network where individuals relate to friends in the larger sense and family, but is not specifically professional. That recruiters visit a profile on this network show that personal and professional spheres are increasingly difficult to separate (which, in some regions, can raise legal issues). LinkedIn, for instance, on the other hand, claims to connect potential future co-workers, including potential future employees/employers.

One way to capture whether recruiters did visit the social network profile of our fictitious candidates would be to include a tracking system similar to Google Analytics. However, first it is not possible to include a basic analytics code to a Facebook profile. Second, the value from an economic/econometric perspective of the data gathered in the way would be very low. It would be very difficult to separate recruiters from other visitors in the log file of persons who visited the profile. The IP address of recruiters would sometimes be that of the company, but other times be that of the company providing the Internet access, especially for smaller firms. In addition, recruiters are known to log into Facebook using assumed names and not mentioning their position in their profile. Thus, the only meaningful number that an analytics tools would be able to give is the total number of visits on our profiles, with only a distant estimate of the part of those who are indeed recruiters. It would not be able to precisely track whether someone from a given company to which we applied, has visited the profile or

not.

Signal

In our experiment, the difference between the two applicants consists in an Arabic signal on one applicant's Facebook profile. The Arabic profile mentions that the applicant is from a Moroccan city (Marrakesh), and speaks Arabic. The control profile is from a French city (Brive-la-Gaillarde) and speaks Italian. We thus differentiate our applicants by city of origin and language spoken as displayed on the Facebook profile.

The literature highlights the importance of an applicant's foreign origins (see e.g. Duguet et al., 2010 for applicants from the Paris area) and language skills for potential employers during hiring (Oreopoulos, 2009; Edo et al., 2013). Therefore, provided the signal is perceived, it can be expected to have a negative impact on the odds of being called back.

The literature shows that, within the application package, information triggering employer rejection can be conveyed by the applicant's name, especially her foreign origin (Bertrand and Mullainathan, 2004; Ahmed et al., 2008; Jacquemet and Yannelis, 2012; Berson, 2012; Duguet et al., 2010), or partner's gender (Ahmed et al., 2013) which signals the candidate's sexual orientation, doing voluntary work for a community organization (Weichselbaumer, 2003; Drydakis, 2009), or the photograph attached to the resume (Weichselbaumer, 2003). However, manipulating those signals is not a suitable strategy in our case since information on names and hobbies is included in the resume and could not be evidence that the employer consulted the online profile.

Ahmed and Hammarstedt (2008) use the Internet as a medium to test for discriminatory practices related to rental housing ads posted online. However, as in every preceding study, the discriminating information is contained in the application package. In our study, the application is completely similar for the two fictitious candidates, and the Internet is the medium for both transmission of the application (by the candidate) and discovery of discriminating information (by the recruiter).

Resumes, cover letters and Facebook profiles

For each applicant, on both the resume and the cover letter we indicate the following information, in order: name, address, holding of a driving license, date of birth and age, phone number and e-mail address. The applicant's address is in an affluent Paris district (15th arrondissement) to avoid location-based discrimination. The applicant holds a driving license. The phone numbers are distinct in each resume so as to track candidates' call back. The e-mail address of each applicant is registered

on Gmail with user name following the same pattern "firstname.lastname@gmail.com". Names and dates of birth are also available on the Facebook profiles.

In our base resume, the applicant has a three-year higher education degree in accounting, a flawless school record, and three internships with various experience suitable for most accounting jobs. A cover letter is included in the application. A cover letter that is too general and standardized is usually not sufficient; employers usually seek a specific professional profile (customers, suppliers, asset management, etc.). We pre-defined parts of the letter with standard sentences corresponding to the common profiles sought by recruiters, and included them according to what was specified in the ad (see Annex 16 and 17). We used information on the recruiting firm that was available on the Internet, such as official websites, web articles, etc. If we were unable to find information about the firm, we sent an unspecific cover letters. Resumes and cover letters were submitted as pdf files. Pdf is a standard format that is easily readable by recruiters. Before the start of the experiment and alongside conducting pre-tests, we interviewed human resources managers to ensure relevance of the cover letters to current job market conditions.

The first and last names of each applicant are French-sounding. The first names were picked from the top-five first names for the year of birth. Each combination of first name and last name is unique, and our fictitious profiles are the sole results when searching on these first and last names on the three leading French language web search engines, and on Facebook.[10] Each combination corresponds to one unique Facebook profile. To test that the results do not depend on the specific names or work experience of the first pair, we create a second pair of applicants with different names and with fewer work experience.

Time Span	First name & Name	Candidate's type	Work experience at the beginning of the experiment
March 2012 - Sept. 2012	Thomas Marvaux Stéphane Marcueil	Control (French signal) Test (Morrocan signal)	6.5 to 13 months
Oct. 2012 - March 2013	Julien Bautrant Nicolas Lautrant	Control (French signal) Test (Morrocan signal)	1 to 6.5 months

Table 1: The two pairs of applicants

A profile named after the first candidate, unrelated to our experiment, currently shows up when one looks up this candidateâ€s name. This profile has appeared for the first time after our experiment

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[10] The market shares of the web search engines in France in December 2012 were: 90.1% for Google, 3.3% for Bing and 1.5% for Yahoo (source: http://www.atinternet.com, last retrieved: June, 2014).

was conducted, and was not present during the time of the experiment. A recruiter could therefore not have seen this profile in addition to our Facebook profile.

Selecting the job openings

We selected the job openings published by the French public agency for employment, Pôle Emploi (PE), during the period March, 2012 to March, 2013. Only job openings posted through the PE public agency website are collected; other recruitment channels, such as Monster, are not considered. We focus on PE openings for two main reasons: First, PE systematically provides detailed information on the job (wage, contract, working hours, required education and work experience, etc.) and the firm (name, location, sector, size, etc.) which is crucial for pseudo-random attribution of applicants to job offers. Other popular French employment websites (Monster, Keljob, Indeed, etc.) provide much less detail except in the case of a few job ads. Second, since PE is the public employment agency it has a transparent equal opportunities policy and discriminatory employers will likely avoid posting their openings on the PE website. Auto-selection of employers using this recruitment channel is thus likely to make it more difficult to find a significant difference between the two candidates. The applications are submitted via a standard email referring to the advertised position and the reference number, with the resume and cover letter as attachments.[11] We selected only openings that provided the recruiter's direct contact information (contact name and e-mail), and excluded those which required the applicant to contact a third-party, usually PE or a recruitment agency. Only openings for relatively long-term contracts were considered, i.e. jobs with an undefined-duration work contract (CDI) or a fixed-duration contract (CDD) of 6 months or more.[12] Our applicants have three years of undergraduate education in accounting, and we responded to ads in the three relevant categories (accountant, assistant-accountant, and aid-accountant) in the PE categorization. For each selected opening, we generate the application material, i.e. the resume and the cover letter, using pre-defined key sentences to match advertised job. At this point, to avoid experimenter bias, the material was not assigned to an applicant. Assignment to an applicant occurred only after all the application material had been generated.

Pseudo-Random Assignment Procedure

We observe the recruiters' behavior through the differences (if any) in return rates for the two fictitious applicants. The candidates have identical application packages and differ only in selected

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[11] A few ads were disregarded either because the e-mail address provided in the ad was wrong or no email address was included.

[12] We assume that very short employment periods are not associated with deep search or screening of applicants.

information on their Facebook profiles. Following Ahmed et al. (2013) and Acquisti and Fong (2013), we use a pseudo-random assignment procedure where only one application is sent per job offer. The type of applicant is pseudo-randomly assigned to each application, so that all along the experiment similar job offers are attributed to each applicant.[13] Half of our sample of job openings receives an application from the control candidate and the other half from the Arabic candidates. The traditional systematic assignment procedure provides information on how a given employer responds to every candidate who applied. However, we are interested in showing that employers that received an application from the control candidate called him back for interview more often, on average, than employers who received the Arabic candidate. We control that this systematic difference is not due to firm or job characteristics. In addition, when using a testing approach the experimenter needs to construct two fictitious candidates who are sufficiently different to avoid detection but close enough that the difference in call backs between the two candidates can be attributable only to the factor of interest, and not to other factors which were changed to differentiate the two candidates. The random assignment procedure requires that the number of applications is doubled but completely alleviates the trade-off between the risk of candidates being detected and the ability to interpret the results. As our candidates never both apply to the same company, the risk of detection is considerably lower than with a usual testing methodology. And since we do not need to differentiate the candidates artificially to avoid detection, we can offer strictly identical candidates.

4   Results

Experiment overview

The experiment covers a period of one year from March 19, 2012 to March 19, 2013. During this period, we sent a total of 837 applications. As shown in Figure **??**, we sent applications for both candidates at similar rates over the period. The vertical red line indicates the time when we changed to the second pair of fictitious applicants (names, work experience and Facebook profiles), as discussed in the previous section.

Samples balancing Since we send one application per opening, our database is divided into two samples, firms that received the control candidate and firms that received the test candidate.

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[13] This pseudo-random assignment is based on job position (accountant, assistant-accountant, etc.), required work experience, and firm size and sector (see Table 2 for descriptive statistics).

We ensured that the two samples were balanced in relation to firms' and job positions' observable characteristics by using pseudo-random assignment. Table 2 below presents the descriptive statistics for the job positions and firms applied to.[14]

Variable	Description	Control candidate	Test candidate
Job position	Accountant:	41.2%	39.1%
	Specialized acc.:	13.6%	15.8%
	Accounting assistant:	26.2%	25.2%
	Acc. & secretary assistant:	15.9%	17.3%
	Other accounting assistant:	3.1%	2.6%
Contract	Long term (CDI)	74.8%	74.8%
	Short term (CDD)	25.2%	25.2%
Short term contract length (mean/sd/min/max, month):		7.8/3.6/6/24	8.1/4.1/6/36
Work time (mean/sd/min/max, hours):		34.0/5.9/7.5/40	34.0/5.7/8/43
Required education	Not specified:	37.6%	40.1%
	CAP/BEP:	2.1%	2.1%
	Bac:	10.2%	7.2%
	Bac +2:	45.0%	45.8%
	Bac +3:	5.0%	4.8%
Required work experience	No experience:	23.3%	23.3%
	6 months - 1 year:	11.7%	12.7%
	2 years:	28.6%	25.4%
	3 years:	17.4%	19.2%
	4 or 5 years:	19.1%	19.4%
Wage (mean/sd/min/max, €/hour):		12.5/2.6/8.6/23.6	12.4/2.3/8.5/20.8
Application delay		1.94 (sd: 1.52)	1.98 (sd: 1.58)
Size	0-5 employees:	23.6%	23.5%
	6-19 emp.:	27.6%	27.4%
	20-49 emp.:	19.7%	19.9%
	50-249 emp.:	19.3%	20.1%
	250+ emp.:	9.8%	9.1%
Firm status	Private:	82.6%	82.0%
	Public:	6.0%	5.0%
	Not-for-profit:	11.4%	13.0%
Sector	See Annex 1	- -	- -
Location	See Annex 1	- -	- -
Total number of applications		420	417

Table 2: Overall descriptive statistics of the applications

We observe that, on average, both applicants applied to similar positions in terms of jobs and firm characteristics. During the whole experiment our applicants received 122 positive recalls for interview. This global return rate is quite high (14.6%) compared to other similar studies (see e.g. Duguet and Petit, 2005 and Duguet et al., 2010 for the Paris region). The most plausible explanation for the higher

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[14]Tests of equality of mean or proportion (depending on the type of variable) have been computed. These tests allow us to accept the null hypothesis of equality in proportion or mean at the 5% threshold for all variables in Table 2.

call back rate in our study is that we matched cover letter and resume to the job opening for each application, incorporating pre-defined sentences corresponding to the characteristics of the firm and the advertised position. Most recruiters contacted our applicants by phone (68.0%) or e-mail (26.3%). A few chose contact by both phone and e-mail (5.7%). All the applicants' postal addresses were real, but no regular mail was ever received. Table 3 shows the overall results of the field experiment.

	Application outcome		Total
Type of applicant	Negative	Positive	
Control candidate	349 (83.1%)	71 (16.9%)	420
Test candidate	366 (87.8%)	51 (12.2%)	417
Total	715 (85.4%)	122 (14.6%)	837

Table 3: Overall experiment outcomes

Table 3 and Figure **??** show a significantly lower call-back rate for the test candidate (12.2%) compared to the control (16.9%).[15] A Chi2 test indicates that this difference is significant (Chi2 statistics=3.67; Pr=0.055). This result validates our hypothesis that recruiters screen the Facebook profiles of our applicants and used the information available on these profiles when deciding whether to call our applicants back for interview. Robustness checks of this result are provided in Annex 2 which also includes time dummies and control variables in Table 2.

Variable of interest The three robustness checks in Annex 2 confirm the significant negative impact of the Arabic signal available on the online profile, on the probability of being invited for interview.[16] Models 2 and 3 which include additional control variables show that some of them also have a significant influence on the likelihood of a positive outcome.

Control variables The control variables which turn out to be significant highlight additional results about the hiring process generally. Firstly, we observe a negative impact of over-education on the probability of being selected. Secondly, during the experiment the applicants' work experience ranged from 1 to 13 months. It appears that only a large difference between applicant's current work

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[15] Figure **??** is presented in chronological order. The work experience of the first two applicants ranged from 6.5 months in March 2012 to 13 months in September 2012, while the work experience of the last two applicants ranged from 1 month in October 2012 to 6.5 months in March 2013. See Annex 13 for the experiment's timing.

[16] Three models are provided in Annex 2: Model 1 contains only the main explicative variable tested in this work, namely "test", Model 2 includes all the available control variables, and Model 3 includes all the control variables except "mean wage" due to multicollinearity issues. The condition index of Model 2 is equal to 29.8. It is very close to the threshold indicating multicollinearity problems according to Belsley et al. (1980). This multicollinearity problem is not surprising as the wage offered is related to the required education level and to other job characteristics such as the required experience, the sector, the job position and the firm size among others. Once we exclude "mean wage" in the model 3, the condition index fall down to 20.4.

experience and that required by recruiters is an impediment. Only four or five years of experience different from what the recruiter requires seems to negatively affect the odds of call-back. Thirdly, we noticed a negative non-linear effect of distance from the job. Close commuting distances (30-90 minutes) have a negative influence on the probability to be selected, but longer distances (over 90 minutes) and shorter (under 30 minutes) have no significant impact, suggesting that employers would expect the successful applicant to relocate closer rather than endure a long commute (van Ommeren et al., 1999). Finally, only three sectors have significant effects, namely industry, teaching/research, and hotel/restaurant. One possible explanation for this is that although we designed the applicants' resumes to fit as many industries as possible, they do not fit all activities. The activities of teaching and research use very specific public accounting beyond the scope of our applicants' skills and education.

Exogenous layout change On December, 2012 Facebook changed the layout of its profiles,[17] from a single page to a front page which includes tabs to provide access to certain personal information. Such personal information, which used to be directly available in the first page of the profile, is now available only if viewers click on the relevant tab. Specifically, the new profiles provide information on city of origin on the front page but information on language(s) is accessed by clicking the 'About' tab. Other aspects of the experimental setting remained unchanged. Comparing the results before and after the layout modification allows us to isolate the impact, if any, of this ergonomic change on the economic outcome. The period from March, 2012 to December, 2012 allows us to establish our main result: a Facebook profile is, for the recruiters, a reliable source of information on applicants.[18] The second period from December, 2012 to March, 2013 provides some evidence about the depth of the screening performed by recruiters within the online profiles. We discuss the results of these consecutive parts of the experiment below.

First part of the experiment

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[17]Link to the official announcement of the Facebook layout change: `http://newsroom.fb.com/News/584/Improvements-to-Timeline]`.

Link to Facebook's announcement of the layout change in December on ABC News: `http://abcnews.go.com/blogs/technology/2012/12/facebook-may-be-changing-your-timeline-redesign-tests-in-progress/#.UNOU516etEM.twitter` and on other news, or bloggers' websites that observed this change about December 2012: `http://mashable.com/2013/01/08/facebook-timeline-change-new/` ; `http://socialmediatoday.com/mohammed-anzil/1100946/facebook-way-change-your-timeline-again` ; `http://news.cnet.com/8301-1023_3-57543175-93/facebook-looking-into-a-slimmer-trimmer-timeline-layout/` ; `http://www.insidefacebook.com/2012/10/31/facebook-tests-timeline-layout-with-single-column-of-posts/` and `http://www.marismith.com/quick-guide-facebook-profile-layout-image/`.

[18]In the first 8 months, the control applicant received 62 positive call-backs from 311 applicants (19.9%); the test applicant was recalled 36 times from 302 applications (11.9%), i.e. Chi2 = 7.33; Pr = 0.007.

The first two applicants were used during the 6.5 months from March 19, 2012 to September 30, 2012. The two applicants have work experience ranging from 6.5 months at the beginning of this part to 13 months at the end (see Annex 13 for more details on the experiment timing). During this period we sent a total of 462 applications. Table 4 and Figure **??** below summarize the results during this first period.

	Application outcome		Total
Type of applicant	Negative	Positive	
Control candidate	181 (78.7%)	49 (21.3%)	230
Test candidate	201 (86.6%)	31 (13.4%)	232
Total	382 (82.7%)	80 (17.3%)	462

Table 4: Call-back statistics of the first two applicants

The first part of the experiment shows a consistent gap in the number of call-backs received by our two applicants. In particular, Figure **??** shows a roughly constant gap of 8 percentage points between the two applicants in favor of the control candidate who received 21.3% of positive returns compared to 13.4% for the test candidate. A Chi2 test confirms the significance of this difference (Chi2 statistics=5.09; Pr=0.024).[19]

Based on the experimental protocol in place, this gap favoring the control candidate can result only from two joint choices of employers: i) screening of applicants' Facebook profiles, and ii) exploitation of the information collected from these profiles to decide whether or not to recall the candidate. Incidentally, the fact that employers use the information obtained from Facebook suggests also that it is considered reliable although not part of the formal application package. It appears that the content of the online profile seems to carry important weight for the decision to call back.

Second part of the experiment

The second pair of fictitious applicants was used during 5.5 months from October 1, 2012 to March 19, 2013. In this case, the two applicants' work experience ranged from 1 month at the beginning of this part to 6.5 months at the end. During this period we sent a total of 375 applications. Table 5 and Figure **??** summarize the results of this second part:

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[19]Information on the similarity of the applications during this period and additional robustness checks for this result are available respectively in Annexes 3, 4 and 5.

	Application outcome		Total
Type of applicant	Negative	Positive	
Control candidate	168 (88.4%)	22 (11.6%)	190
Test candidate	165 (89.2%)	20 (10.8%)	185
Total	333 (88.8%)	42 (11.2%)	375

Table 5: Call-back statistics of the second two applicants

Table 5 and Figure ?? show that both applicants had similar call-back rates (11.6% and 10.8%) at the end of the second part of the experiment. These callback rates are lower than those in the first part of the experiment, which was expected since the applicants have shorter work experience. The two call-back rates are not significantly different (Chi2 statistics=0.05; Pr=0.81), which leads us to conclude that our two applicants are no longer different from the recruiters' point of view.

The second part of the experiment from October, 2012 to March, 2013 is usefully divided into two sub-periods: before and after December 2012, when the Facebook layout changed. Table 6 summarizes the main results of the two sub-periods:

	1st sub-period from Oct. 1 2012 to Nov. 30 2012			2nd sub-period from Dec. 1 2012 to March 19 2013			Total
	Negative	Positive	Total	Negative	Positive	Total	
Control candidate	68 (84.0%)	13 (16.0%)	81	100 (91.7%)	9 (8.3%)	109	190
Arabic candidate	65 (92.9%)	5 (7.1%)	70	100 (87.0%)	15 (13.0%)	115	185
Total	133 (88.1%)	18 (11.9%)	151	200 (89.3%)	24 (10.7%)	224	375

Table 6: Call-back statistics of the last two applicants by sub-periods

During the first two months of the second part with the new applicants (new names and graduation dates), we again observe an 8-percentage point gap in call back rates between the control (16.0%) and the test (7.1%) candidates. A Chi2 test indicates the significance of this difference at the 10% threshold (Chi2 statistics=2.84; Pr=0.092). In other words, during the first eight months of the experiment the gap between the two types of applicants remained fairly constant, and highlighted the use of online profiles in employers' selection processes.

In December 2012 we observe a decreased gap between our applicant pairs. During the last 4 months of the experiment, the test candidate has a call-back rate that is not statistically different from that of the control applicant, respectively 13.0% and 8.3% (Chi2 statistics=1.34; Pr=0.24). After 8

months characterized by a constant gap in call-backs between the two applicants, the Facebook layout changed and the gap shrank. After the change, our results suggest that both applicants are similar from the point of view of employers. Since the strength of the Arabic signal on the test Facebook profile was reduced by the layout change, distinguishing the two applicants would require deeper browsing of profiles. Our result is confirmed by other studies on discrimination showing that language skill concerns are a strong element of job discrimination (Oreopoulos, 2009; Edo et al., 2013).[20] This part of the experiment is thus consistent with search behavior which does not involves very thorough screening by employers of applicants' SNS profiles and reliance only on the front page. More study is required to characterize this behavior further. For instance, the applicants' education level in our experiment is three years undergraduate study; it remains to be seen whether more senior jobs would involve more thorough SNS profile screening.

5   Conclusion

This study aimed at extending the relatively scarce literature on recruiters' search strategies. We investigate the potential use of SNSs, in our case Facebook, as a reliable source of information about applicants for recruiters during hiring. So far, the literature has focused only on the usual sources of information on applicants (application material and referrals). Declarative surveys on the use of SNSs in hiring are affected by a strong declarative bias due to the ethical and legal issues surrounding the collection of applicants' personal data. We therefore set up a field experiment, using real job offers for accountants in the greater Paris area. This experiment consisted in creating two fictitious applicants that differed only in their perceived origins, observable solely on their Facebook profile. In line with the literature on discrimination, this signal – if observed and considered reliable – is expected to have a significant negative effect on the call-back rates of the test applicant compared to the control. Conversely, if recruiters do not screen applicants' Facebook profile, the quasi-similarity of their application material (resume and cover letter) will lead to similar call-back rates for both. During 12 months (from March 2012 to March 2013), we applied for job openings for accountants in the Paris region using pseudo-random assignment method, and sent more than 400 applications per

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[20]In Edo et al. (2013), the mention of a language-related skill was randomly attributed to half of the applications sent, and consisted of reference to an award in a language contest, writing in a college newspaper, or membership of a crossword club. Discrimination dropped substantially for female (not male) applicants with this addition. Oreopoulos (2009) complemented large-scale experimentation by an audit study and interviews to highlight this motivation for discrimination.

applicant.

The experiment is split into two sub periods - before and after the Facebook layout change in December 2012. The first sub-period from March 2012 to December 2012 shows a clear and consistent gap of 8 percentage points between the control (21.3%) and test (13.4%) applicants. The experimental protocol ensures that the significant difference results from observation of the Arabic signal only available on the test applicant's Facebook profile. The main result of this article is that SNSs are used in hiring to screen applicants and dramatically affect French employer's decision to grant an interview. This 40 % gap between the two applicants (with similar professional competences) shows that Facebook really impact the hiring process, and then, the French labor market functioning. For many recruiters, Facebook profiles have become a part of the application material.

The second part of the experiment is based on an unexpected change in the layout of Facebook profiles which occurred in December, 2012. This modification strongly affected the Arabic signal as only a part of it (i.e. the hometown) still appeared on the Facebook front page, while the second part (i.e. language spoken) was positioned at the bottom of a secondary page (in the "About" tab). This natural experiment allowed us to learn more about the SNS screening practices of recruiters since, following this change the two candidates exhibited no significant difference in their call-back rates. It suggests that screening is not thorough, illustrating the existence of search costs for employers to browse an entire profile.

An implication for policy is that applicants should know that their SNSs profiles are considered reliable means of assessment and selection by many French recruiters. In this study, a difference in the online profiles led to a drop of 40 % in the number of callbacks. It is therefore important during a job search to treat the SNS profile as a part of the application material. A communication campaign could be organized to inform people of the secondary use of their online personal information and the potential consequences for the probability of finding a job and for their professional careers. Our findings also suggest potential solutions, ranging from locking one's profile, to cleaning one's SNS profile during job search or various assessment periods, to the use of multiple SNS profiles ("official" accessible to anyone, and private), to the use of an avatar. However, the impact of not having an online presence while looking for a job should be assessed in further studies.

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Annex 1. Job applications by sector and applicant's type

		Control applicant	Test applicant
Sector	Accounting	10.5%	10.1%
	Association/Union	4.0%	3.6%
	Transport	4.0%	4.8%
	Bank/insurance	3.6%	3.8%
	Construction	3.3%	4.1%
	Retail trade	5.5%	5.5%
	Wholesale trade	10.9%	10.8%
	Audit & consulting	6.2%	6.5%
	Culture/leisure	1.9%	2.2%
	Management	4.8%	4.1%
	Teaching/research	3.6%	3.1%
	Hotel/restaurant	3.3%	4.1%
	Real estate	4.8%	4.8%
	Telecom/computer	3.8%	4.3%
	Health/social	5.7%	6.2%
	Public organizations	1.9%	1.9%
	Advertising/communication	3.6%	3.1%
	Business services	9.1%	8.2%
	Personal services	3.6%	3.8%
	Industry/energy/waste	5.9%	5.0%
Location	Seine-et-Marne	4.5%	4.3%
	Yvelines	9.8%	9.6%
	Essonne	6.2%	7.2%
	Hauts-de-Seine	16.4%	17.0%
	Seine-Saint-Denis	10.7%	10.3%
	Val-de-Marne	9.8%	10.6%
	Val-d'Oise	4.0%	3.8%
	Paris central districts	6.7%	6.5%
	Paris North-East districts	5.9%	5.8%
	Paris North-West districts	14.1%	13.7%
	Paris South-East districts	4.5%	3.8%
	Applicants' district and contiguous Parisian districts	7.4%	7.4%
Total number of applications		420	417

Paris areas definitions:

- Paris central district: 1st, 2nd, 3rd, 4th and 5th Paris districts ;

- Paris North-East districts: 10th, 11th, 19th and 20th Paris districts ;

- Paris North-West districts: 8th, 9th, 17th and 18th Paris districts ;

- Paris South-East districts: 12th and 13th Paris districts ;

- Applicant's district and contiguous Paris districts: 15th, 16th, 17th, 6th and 7th Paris districts.

Annex 2. Robustness check: whole experiment

	Model 1		Model 2		Model 3	
Applicant type						
Control app.	ref.		ref.		ref.	
Test app.	-0.206+	(0.107)	-0.254**	(0.116)	-0.240**	(0.115)
Application delay						
No delay	- -	- -	ref.		ref.	
1 day	- -	- -	0.069	(0.212)	0.045	(0.207)
2 days	- -	- -	-0.110	(0.224)	-0.159	(0.219)
3 days	- -	- -	-0.413	(0.260)	-0.425+	(0.255)
4 days	- -	- -	-0.418	(0.313)	-0.443	(0.307)
5-9 days	- -	- -	0.081	(0.314)	0.047	(0.309)
Contract type						
Short term contract	- -	- -	ref.		ref.	
Long term contract	- -	- -	-0.146	(0.138)	-0.185	(0.138)
Job position						
Accounting assistant	- -	- -	ref.		ref.	
Acc. & secretary assist.	- -	- -	0.262	(0.176)	0.213	(0.175)
Other accounting assist.	- -	- -	-0.606	(0.494)	-0.626	(0.482)
Accountant	- -	- -	0.101	(0.167)	-0.054	(0.159)
Specialized accountant	- -	- -	0.166	(0.214)	-0.017	(0.208)
Mean wage offer	- -	- -	-0.099***	(0.032)	- -	- -
Required education						
Bac+3	- -	- -	ref.		ref.	
Not specified	- -	- -	-0.578**	(0.268)	-0.453+	(0.264)
CAP/BEP	- -	- -	-1.285**	(0.598)	-1.097+	(0.577)
Bac	- -	- -	-0.824**	(0.344)	-0.649+	(0.331)
Bac+2	- -	- -	-0.437+	(0.263)	-0.318	(0.257)
Required work experience						
No work experience			ref.		ref.	
6 months-1 year	- -	- -	0.045	(0.197)	0.035	(0.195)
2 years	- -	- -	-0.008	(0.162)	-0.073	(0.159)
3 years	- -	- -	-0.070	(0.187)	-0.190	(0.186)
4 or 5 years	- -	- -	-0.417+	(0.220)	-0.631***	(0.208)
to be continued on next page						

	Model 1		Model 2		Model 3	
Public transport time						
Less than 30 minutes	- -	- -	ref.		ref.	
31-60 minutes	- -	- -	-0.279**	(0.133)	-0.270**	(0.132)
61-90 minutes	- -	- -	-0.692***	(0.205)	-0.670***	(0.205)
91-120 minutes	- -	- -	-0.345	(0.362)	-0.300	(0.362)
120+ minutes	- -	- -	-0.808+	(0.477)	-0.819	(0.499)
Firm size						
5- employees	- -	- -	ref.		ref.	
6-19 emp.	- -	- -	-0.079	(0.168)	-0.090	(0.168)
20-49 emp.	- -	- -	0.107	(0.175)	0.078	(0.174)
50-249 emp.	- -	- -	0.077	(0.189)	0.015	(0.186)
250+ emp.	- -	- -	-0.048	(0.230)	-0.046	(0.228)
Firm sector						
Accounting	- -	- -	ref.		ref.	
Association/Union	- -	- -	-0.434	(0.378)	-0.407	(0.379)
Transport	- -	- -	0.275	(0.293)	0.372	(0.287)
Bank/insurance	- -	- -	-0.331	(0.348)	-0.295	(0.339)
Construction	- -	- -	-0.635	(0.563)	-0.591	(0.563)
Retail trade	- -	- -	-0.185	(0.302)	-0.140	(0.300)
Wholesale trade	- -	- -	-0.322	(0.268)	-0.280	(0.264)
Audit & consulting	- -	- -	-0.061	(0.283)	-0.058	(0.278)
Culture/leisure	- -	- -	-0.720	(0.487)	-0.624	(0.509)
Management	- -	- -	-0.197	(0.306)	-0.145	(0.297)
Teaching/research	- -	- -	-1.249***	(0.409)	-1.105***	(0.411)
Hotel/restaurant	- -	- -	-0.964**	(0.384)	-0.863**	(0.376)
Real estate	- -	- -	-0.178	(0.317)	-0.150	(0.314)
Telecom/computer	- -	- -	-0.376	(0.315)	-0.404	(0.318)
Health/social	- -	- -	-0.114	(0.331)	-0.018	(0.333)
Public organization	- -	- -	-0.391	(0.507)	-0.221	(0.518)
Advertising/communication	- -	- -	-0.120	(0.330)	-0.125	(0.322)
Business services	- -	- -	-0.376	(0.272)	-0.343	(0.272)
Personal services	- -	- -	-0.630	(0.394)	-0.527	(0.391)
Industry, energy and waste	- -	- -	-1.386***	(0.455	-1.287***	(0.435)
Firm status						
Private			ref.		ref.	
Public			0.431	(0.307)	0.408	(0.312)
Not-for-Profit			0.377	(0.239)	0.317	(0.243)
end of table, see next page						

	Model 1		Model 2		Model 3	
Time dummies						
March 2012	- -	- -	ref.		ref.	
April 2012	- -	- -	-1.213***	(0.419)	-1.216***	(0.412)
May 2012	- -	- -	-0.299	(0.336)	-0.323	(0.336)
June 2012	- -	- -	0.052	(0.329)	0.027	(0.327)
July 2012	- -	- -	-0.339	(0.319)	-0.365	(0.316)
Aug. 2012	- -	- -	-0.166	(0.336)	-0.186	(0.336)
2012-09-01	- -	- -	-0.329	(0.329)	-0.390	(0.327)
2012-10-01	- -	- -	-0.403	(0.353)	-0.465	(0.346)
2012-11-01	- -	- -	-0.477	(0.360)	-0.503	(0.358)
Dec. 2012	- -	- -	-0.358	(0.395)	-0.356	(0.386)
2013-01-01	- -	- -	-0.356	(0.369)	-0.369	(0.366)
Feb. 2013	- -	- -	-0.721+	(0.387)	-0.762**	(0.381)
March 2013	- -	- -	-0.907**	(0.432)	-0.963**	(0.425)
Constant	-0.960***	(0.073)	1.785***	(0.579)	0.673	(0.453)
Observations	837		837		837	
Pseudo-R2	0.005		0.169		0.158	

Robust standard errors in brackets.

+, ** and *** mean respectively significant at 10%, 5% and 1% tresholds.

Annex 3. 1ˢᵗ part of experiment: job and firm characteristics of applications

Variable	Description	Control candidate	Test candidate
Job position	Accountant:	44.3%	43.1%
	Specialized acc.:	9.6%	10.3%
	Accounting assistant:	23.9%	29.3%
	Acc. & secretary assistant:	18.7%	14.7%
	Other accounting assistant:	3.5%	2.6%
Contract	Long term (CDI)	28.7%*	19.4%*
	Short term (CDD)	71.3%*	80.6%*
Short term contract lenght (mean/sd/min/max, month):		8.2/4.1/6/24	7.8/3.3/6/24
Worktime[21] (mean/sd/min/max):		34.3/5.4/7.5/39	34.2/5.6/16/43
Required education	Not specified:	40.4%	38.8%
	CAP/BEP:	1.3%	2.1%
	Bac:	11.3%*	5.2%*
	Bac +2:	42.6%	49.6%
	Bac +3:	4.4%	4.3%
Required work experience	No experience:	25.2%	27.1%
	6 months-1 year:	12.6%	12.5%
	2 years:	27.8%	23.3%
	3 years:	16.5%	19.4%
	4 or 5 years:	17.9%	17.7%
Mean wage (mean/sd/min/max, €/hour):		12.3/2.4/9.2/23.4	12.3/2.2/8.5/19.8
Application delay[22] (mean/sd/min/max):		1.3/1.2/0/5*	1.6/1.3/0/6*
Size	0-5 employees:	23.5%	23.3%
	6-19 emp.:	27.8%	29.7%
	20-49 emp.:	17.8%	19.0%
	50-249 emp.:	21.3%	21.1%
	250+ emp.:	9.6%	6.9%
Firm status	Private:	83.0%	83.6%
	Public:	6.5%	4.7%
	Not-for-profit:	10.4%	11.6%
Sector	See Annex 4	- -	- -
Location	See Annex 4	- -	- -
Total number of applications		230	232

* indicates a significant difference in mean or proportion between the two applicants at 5% threshold.

Note: Given the large number of variables taken into account, some differences between the two applicants could appear among control variables for sub-period of the experimentation. For instance, we can observe significant proportion or mean differences between the two applicants in the Table below for contract type, application delay and some job positions. For some extent, these differences stem from the detailed manner we opted to expose the variables. In a less detailed way and without loss of relevance, all accounting assistant positions could be merged (accounting assistant, accounting and secretary assistant, and, other accounting assistant), and then the proportion difference would not hold any more. In the case of contract type, the difference is not due to a detailed manner to present this variable but to our pseudo-random assignment method during which we focus more especially on 4 characteristics: firm's size and sector in addition to job position and required work experience. Then, some differences could temporally appear among other control variables. For application delay, some

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[21] French standard weekly worktime = 35h
[22] Number of business days between the ad publication and the application sending

difference could appear due to the fact that at least two co-authors are involved in the preparation and checking of the application materials. For each applicant type, the sending is carried only by one co-author. Depending on authors' availability, this last operation could imply some variations in application sending. According to models in Annex 5, the type of contract duration and the application delay have not however any significant influence on the outcome of the application.

Annex 4. 1ˢᵗ part of experiment: job applications by sector, location and applicant's type

		Control applicant	Test applicant
Sector	Accounting	10.4%	11.7%
	Association/Union	3.1%	3.5%
	Transport	5.7%	4.3%
	Bank/insurance	2.6%	4.8%
	Construction	2.6%	3.1%
	Retail trade	5.2%	6.5%
	Wholesale trade	10.0%	10.8%
	Audit & consulting	5.6%	6.9%
	Culture/leisure	1.8%	1.3%
	Management	4.4%	3.0%
	Teaching/research	5.2%	3.4%
	Hotel/restaurant	6.1%	4.3%
	Real estate	3.0%	4.3%
	Telecom/computer	4.4%	5.2%
	Health/social	6.5%	5.6%
	Public organizations	1.7%	2.2%
	Advertising/communication	4.8%	4.3%
	Business services	7.4%	7.4%
	Personal services	3.0%	2.2%
	Industry/energy/waste	6.5%	5.2%
Location	Seine-et-Marne	4.4%	3.0%
	Yvelines	9.1%	8.6%
	Essonne	4.8%	9.1%
	Hauts-de-Seine	16.1%	15.5%
	Seine-Saint-Denis	10.0%	12.1%
	Val-de-Marne	12.2%	8.2%
	Val-d'Oise	4.4%	3.5%
	Paris central districts	9.1%	8.2%
	Paris North-East districts	6.5%	5.2%
	Paris North-West districts	11.7%	13.8%
	Paris South-East districts	5.2%*	1.3%*
	Applicant's district and contiguous Parisian districts	6.5%	8.6%
Total number of application		230	232

* indicates a significant difference in proportion at the 5% threshold.

Annex 5: 1st part of experiment robustness check

Applicant type						
Control app.	ref.		ref.		ref.	
Test app.	-0.431***	(0.159)	-0.404***	(0.156)	-0.313**	(0.139)
Application delay						
No delay	ref.		ref.		- -	- -
1 day	0.264	(0.240)	0.200	(0.240)	- -	- -
2 days	-0.129	(0.275)	-0.188	(0.274)	- -	- -
3 days	-0.300	(0.331)	-0.327	(0.321)	- -	- -
4 days	0.269	(0.383)	0.267	(0.371)	- -	- -
5-9 days	0.820+	(0.459)	0.796+	(0.467)	- -	- -
Contract type						
Short term contract	ref.		ref.		- -	- -
Long term contract	-0.034	(0.196)	-0.112	(0.195)	- -	- -
Job position						
Accounting assistant	ref.		ref.		- -	- -
Acc. & secretary assist.	0.254	(0.240)	0.198	(0.239)	- -	- -
Other accounting assist.	-0.598	(0.562)	-0.669	(0.557)	- -	- -
Accountant	-0.140	(0.226)	-0.322	(0.217)	- -	- -
Specialized accountant	0.141	(0.305)	-0.119	(0.299)	- -	- -
Mean wage offer	-0.131***	(0.044)	- -		- -	- -
Required education						
Bac+3	ref.		ref.		- -	- -
Not specified	-0.619	(0.386)	-0.387	(0.367)	- -	- -
CAP/BEP	-0.766	(0.722)	-0.543	(0.695)	- -	- -
Bac	-1.199**	(0.477)	-0.898**	(0.454)	- -	- -
Bac+2	-0.318	(0.377)	-0.119	(0.362)	- -	- -
Required work experience						
No experience	ref.		ref.			
6 months-1 year	-0.038	(0.292)	-0.013		- -	- -
2 years	0.178	(0.227)	0.076		- -	- -
3 years	-0.002	(0.256)	-0.154		- -	- -
4 or 5 years	-0.440	(0.296)	-0.736***		- -	- -
Public transport time						
Less than 30 minutes	ref.		ref.		- -	- -
31-60 minutes	-0.359**	(0.177)	-0.353**	(0.173)	- -	- -
61-90 minutes	-0.764***	(0.277)	-0.759***	(0.273)	- -	- -
91-120 minutes	-0.734	(0.591)	-0.729	(0.587)	- -	- -
120+ minutes	-0.160	(0.586)	-0.327	(0.670)	- -	- -
end of table, see next page						

Firm size						
5- employees	ref.		ref.		- -	- -
6-19 emp.	0.176	(0.230)	0.162	(0.229)	- -	- -
20-49 emp.	0.378	(0.250)	0.322	(0.246)	- -	- -
50-249 emp.	0.338	(0.268)	0.247	(0.260)	- -	- -
250+ emp.	0.412	(0.309)	0.398	(0.307)	- -	- -
Firm sector						
Accounting	ref.		ref.		- -	- -
Association/Union	-0.287	(0.490)	-0.275	(0.495)	- -	- -
Transport	0.641+	(0.376)	0.701+	(0.374)	- -	- -
Bank/insurance	-0.304	(0.441)	-0.263	(0.433)	- -	- -
Construction	-0.029	(0.770)	0.016	(0.760)	- -	- -
Retail trade	-0.002	(0.384)	0.050	(0.383)	- -	- -
Wholesale trade	-0.250	(0.373)	-0.218	(0.371)	- -	- -
Audit & consulting	0.397	(0.381)	0.367	(0.376)	- -	- -
Culture/leisure	-0.957+	(0.541)	-0.941+	(0.536)	- -	- -
Management	-0.681	(0.489)	-0.515	(0.454)	- -	- -
Teaching/research	-1.658***	(0.464)	-1.506***	(0.474)	- -	- -
Hotel/restaurant	-0.882+	(0.452)	-0.793+	(0.434)	- -	- -
Real estate	0.046	(0.445)	0.098	(0.433)	- -	- -
Telecom/computer	-0.137	(0.403)	-0.225	(0.407)	- -	- -
Health/social	0.118	(0.446)	0.161	(0.455)	- -	- -
Public orga.	-0.098	(0.660)	0.015	(0.657)	- -	- -
Advertising/communication	-0.194	(0.423)	-0.207	(0.409)	- -	- -
Business services	-0.398	(0.417)	-0.379	(0.421)	- -	- -
Personal services	-1.153+	(0.678)	-1.009	(0.644)	- -	- -
Industry, energy and waste	-1.143**	(0.531)	-1.040**	(0.501)	- -	- -
Firm status						
Private	ref.		ref.			
Public	0.423	(0.439)	0.382	(0.436)		
Not-for-Profit	0.305	(0.313)	0.211	(0.316)		
Time dummies						
March 2012	ref.		ref.		- -	- -
April 2012	-1.343***	(0.439)	-1.340***	(0.430)	- -	- -
May 2012	-0.329	(0.379)	-0.364	(0.382)	- -	- -
June 2012	0.048	(0.361)	-0.019	(0.364)	- -	- -
July 2012	-0.529	(0.340)	-0.576+	(0.344)	- -	- -
Aug. 2012	-0.205	(0.371)	-0.229	(0.373)	- -	- -
Sept. 9 2012	-0.310	(0.374)	-0.401	(0.375)	- -	- -
Constant	1.826**	(0.784)	0.386	(0.592)	-0.796***	(0.093)
Observations	462		462		462	
Pseudo-R2	0.232		0.216		0.012	

Robust standard errors in brackets. +, ** and *** mean respectively significant at 10%, 5% and 1% tresholds.

Annex 6. 2nd part of experiment: job and firm characteristics of applications

Variable	Description	Control candidate	Test candidate
Job position	Accountant:	37.4%	34.1%
	Specialized accountant:	18.4%	22.7%
	Accounting assistant:	29.0%*	20.0%*
	Acc. & secretary assistant:	12.6%*	20.5%*
	Other accounting assistant:	2.6%	2.7%
Contract	Long term (CDI)	21.1%*	32.4%*
	Short term (CDD)	78.9%*	67.6%*
Short term contract duration (mean/sd/min/max, month):		7.2/2.5/6/18	8.3/4.7/6/36
Worktime[23](mean/sd/min/max, hours):		33.6/6.4/8/40	33.9/5.9/8/39
Required education	Not specified:	34.2%	41.6%
	CAP/BEP:	3.2%	2.2%
	Bac:	8.9%	9.7%
	Bac +2:	47.9%	41.1%
	Bac +3:	5.8%	5.4%
Required work experience	No experience:	21.1%	18.4%
	6 months-1 year:	10.5%	13.0%
	2 years:	29.5%	28.1%
	3 years:	18.4%	18.9%
	4 or 5 years:	20.5%	21.6%
Mean wage (mean/sd/min/max, €/hour):		12.8/2.7/8.6/23.6	12.5/2.4/8.6/20.8
Application delay[24](mean/sd/min/max):		2.7/1.5/0/7	2.5/1.7/0/9
Size	0-5 employees:	23.7%	23.8%
	6-19 emp.:	27.4%	24.3%
	20-49 emp.:	22.1%	21.1%
	50-249 emp.:	16.8%	18.9%
	250+ emp.	10.0%	11.9%
Firm status	Private:	82.7%	82.1%
	Public:	5.9%	5.0%
	Not-for-profit:	11.4%	12.9%
Sector	See Annex 7	- -	- -
Location	See Annex 7	- -	- -
Total number of applications		190	185

* indicates a significant difference in mean or proportion between the two applicants at 5% threshold.

Note: in the Table below, we can notice again some differences in proportion for some job positions and contract type. For job positions, these differences do not hold anymore if we consider all accounting assistant positions together. Concerning contract type, this is the opposite case as in the first part of the experiment (see Annex 3). According to models in Annex 9, both job characteristics have not any significant influence on the outcome of the application.

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[23]French standard weekly worktime = 35h

[24]# of business days between the ad publication and the application sending

Annex 7. 2nd part of experiment: job applications by sector and applicant's type

		Control applicant	Test applicant
Sector	Accounting	10.5%	8.1%
	Association/Union	5.2%	3.8%
	Transport	2.1%	5.4%
	Bank/insurance	4.8%	2.7%
	Construction	4.2%	5.4%
	Retail trade	5.8%	4.3%
	Wholesale trade	12.1%	10.8%
	Audit & consulting	6.8%	6.0%
	Culture/leisure	2.1%	3.2%
	Management	5.3%	5.4%
	Teaching/research	1.6%	2.2%
	Hotel/restaurant	0.0%*	3.8%*
	Real estate	6.8%	5.4%
	Telecom/computer	3.2%	3.2%
	Health/social	4.7%	7.0%
	Public organizations	2.1%	1.6%
	Advertising/communication	2.1%	1.6%
	Business services	11.1%	9.2%
	Personal services	4.2%	6.0%
	Industry/energy/waste	5.3%	4.9%
Location	Seine-et-Marne	4.8%	6.0%
	Yvelines	10.5%	10.8%
	Essonne	7.9%	4.9%
	Hauts-de-Seine	16.8%	15.1%
	Seine-Saint-Denis	11.6%	8.1%
	Val-de-Marne	6.8%*	13.5%*
	Val-d'Oise	3.7%	4.3%
	Paris central districts	3.7%	4.3%
	Paris North-East districts	5.3%	6.5%
	Paris North-West districts	16.8%	13.5%
	Paris South-East districts	3.7%	7.0%
	Applicants' district and contiguous Parisian districts	8.4%	6.0%
Total number of application		190	185

* indicates a significant difference in mean or proportion between the two applicants at 5% threshold.

Note: Proportion equality tests are not satisfied for one sector (hotel/restaurant) and one area (Val-de-Marne). However, these two firm characteristics have no significant influence on the outcome of application according to Annex 8.

Annex 8. 2nd part of experiment: robustness check

Applicant type						
Control app.	ref.		ref.		ref.	
Test app.	-0.228	(0.190)	-0.207	(0.185)	-0.040	(0.171)
Application delay						
No delay	ref.		ref.		- -	- -
1 day	-0.650	(0.477)	-0.529	(0.469)	- -	- -
2 days	-0.626	(0.488)	-0.596	(0.479)	- -	- -
3 days	-1.142**	(0.510)	-1.020**	(0.500)	- -	- -
4 days	-1.945***	(0.624)	-1.851***	(0.592)	- -	- -
5-9 days	-0.989+	(0.594)	-0.917	(0.567)	- -	- -
Contract type						
Short term contract	ref.		ref.		- -	- -
Long term contract	-0.173	(0.223)	-0.223	(0.221)	- -	- -
Job position						
Accounting assistant	ref.		ref.		- -	- -
Accounting, secretary and other assist.	0.250	(0.291)	0.160	(0.287)	- -	- -
Accountant	0.680**	(0.287)	0.439+	(0.260)	- -	- -
Specialized accountant	0.526	(0.338)	0.268	(0.317)	- -	- -
Mean wage offer	-0.114***	(0.044)	- -	- -	- -	- -
Required education						
Bac+3	ref.		ref.		- -	- -
Not specified or BEP/CAP	-0.386	(0.373)	-0.335	(0.382)	- -	- -
Bac	-0.176	(0.456)	-0.051	(0.459)	- -	- -
Bac+2	-0.441	(0.369)	-0.352	(0.372)	- -	- -
Required work experience						
No experience	ref.		ref.			
6 months-1 year	0.139	(0.300)	0.071	(0.295)	- -	- -
2 years	-0.214	(0.248)	-0.286	(0.246)	- -	- -
3 years	-0.118	(0.301)	-0.255	(0.300)	- -	- -
4 or 5 years	-0.459	(0.354)	-0.714**	(0.336)	- -	- -
Public transport time						
Less than 30 minutes	ref.		ref.		- -	- -
31-60 minutes	-0.266	(0.227)	-0.241	(0.227)	- -	- -
61-90 minutes	-0.928***	(0.356)	-0.837**	(0.354)	- -	- -
90+ minutes	-0.578	(0.429)	-0.461	(0.425)	- -	- -
end of the table, see next page						

Firm size						
5- employees	ref.		ref.		- -	- -
6-19 emp.	-0.585**	(0.269)	-0.562**	(0.263)	- -	- -
20-49 emp.	-0.296	(0.262)	-0.303	(0.261)	- -	- -
50-249 emp.	-0.011	(0.281)	-0.060	(0.280)	- -	- -
250+ emp.	-0.815**	(0.385)	-0.756**	(0.379)	- -	- -
Firm sector						
Accounting	ref.		ref.		- -	- -
Association/Union	-0.845	(0.563)	-0.761	(0.566)	- -	- -
Bank/insurance	-0.742	(0.537)	-0.671	(0.518)	- -	- -
Construction and real estates	-1.010**	(0.469)	-0.907**	(0.463)	- -	- -
Retail trade, hotel and restaurant	-0.487	(0.525)	-0.417	(0.527)	- -	- -
Wholesale trade	-0.773+	(0.424)	-0.675	(0.417)	- -	- -
Audit & consulting	-0.865+	(0.476)	-0.814+	(0.470)	- -	- -
Culture/leisure	-0.822	(0.734)	-0.590	(0.767)	- -	- -
Management	0.172	(0.444)	0.172	(0.444)	- -	- -
Teaching/research	-1.194	(0.920)	-0.955	(0.901)	- -	- -
Telecom/computer	-0.940+	(0.529)	-0.930+	(0.532)	- -	- -
Health/social	-0.594	(0.548)	-0.332	(0.513)	- -	- -
Public orga.	-0.980	(0.963)	-0.645	(0.981)	- -	- -
Advertising/communication	0.126	(0.561)	0.041	(0.565)	- -	- -
Business services	-0.499	(0.398)	-0.437	(0.400)	- -	- -
Personal services	-0.918+	(0.483)	-0.729	(0.477)	- -	- -
Industry, energy, waste and transport	-1.579***	(0.611)	-1.302**	(0.571)	- -	- -
Firm status						
Private	ref.		ref.			
Public	0.679	(0.511)	0.664	(0.502)		
Not-for-Profit	0.521	(0.366)	0.461	(0.363)		
Time dummies						
Oct. 2012	ref.		ref.		- -	- -
Nov. 11 2012	0.086	(0.298)	0.094	(0.293)	- -	- -
Dec. 2012	0.109	(0.332)	0.180	(0.320)	- -	- -
Jan. 1 2013	0.014	(0.339)	0.119	(0.336)	- -	- -
Feb. 2013	-0.201	(0.310)	-0.182	(0.311)	- -	- -
March 2013	-0.561+	(0.340)	-0.538+	(0.325)	- -	- -
Constant	2.440***	(0.891)	1.008	(0.717)	-1.196***	(0.119)
Observations	375		375		375	
Pseudo-R2	0.195		0.177		0.0002	

Robust standard errors in brackets. +, ** and *** mean respectively significant at 10%, 5% and 1% tresholds.

Note: some sectors have to be merged due to perfect predictability of results otherwise. This is the case here for: construction and real estate, retail trade and hotel/restaurant, and industry, energy, waste and transport.

Annex 9. 2nd part of experiment: job and firm characteristics of the applications for the 2 sub-periods

Variable	Description	1st sub-period (from Oct. 1 2012 to Nov. 30 2012)		2nd sub-period (from Dec.1 2012 to Mar. 19 2013)	
		Control candidate	Test candidate	Control candidate	Test candidate
Job position	Accountant:	30.9%	31.4%	42.2%	35.7%
	Specialized acc.:	18.5%	17.1%	18.4%	26.1%
	Accounting assistant:	32.1%	25.7%	26.6%	16.5%
	Acc. & secretary ass.:	14.8%	21.4%	11.0%	20.0%
	Other acc. assistant:	3.7%	4.3%	1.8%	1.7%
Contract	Long term (CDI)	14.8%*	35.7%*	25.7%	30.4%
	Short term (CDD)	85.2%*	64.3%*	74.3%	69.6%
Short term contract duration (mean/sd/min/max, month):		7.0/1.5/6/10	7.8/2.4/6/12	7.2/2.8/6/18	8.5/5.8/6/36
Worktime[25](mean/sd/min/max):		33.0/6.6/8/39	33.8/5.9/8/39	34.0/6.2/9.5/40	33.9/6.0/9.5/39
Required education	Not specified:	34.6%	42.9%	33.9%	40.9%
	CAP/BEP:	2.5%	4.3%	3.7%	0.9%
	Bac:	9.9%	8.6%	8.3%	10.4%
	Bac +2:	48.2%	44.3%	47.7%	39.1%
	Bac +3	4.9%*	0.0%*	6.4%	8.7%
Required work exp.	No experience:	19.8%	21.4%	22.0%	16.5%
	6 months-1 year:	11.1%	11.4%	10.1%	13.7%
	2 years:	33.3%	35.7%	26.6%	23.5%
	3 years:	22.2%	17.1%	15.6%	20.0%
	4 or 5 years:	13.6%	14.3%	25.7%	26.1%
Mean wage (mean/sd/min/max, €/hour):		12.8/2.5/9.4/23.1	12.5/2.7/8.6/20.8	12.9/2.9/8.6/23.6	12.4/2.1/9.2/23.6
Application delay[26](mean/sd/min/max, days):		2.3/1.1/0/6*	1.6/0.9/0/4*	2.9/1.7/0/7	3.0/1.9/0/9
Size	0-5 employees:	17.3%	22.9%	28.4%	24.4%
	6-19 emp.:	28.4%	22.9%	26.6%	25.2%
	20-49 emp.:	29.6%*	14.3%*	16.5%	25.2%
	50-249 emp.:	17.3%	25.7%	16.5%	14.8%
	250+ emp.:	7.4%	14.3%	11.9%	10.4%
Firm status	Private:	82.7%	81.4%	81.7%	79.1%
	Public:	3.7%	5.7%	6.4%	5.2%
	Not-for-profit:	13.6%	12.9%	11.9%	15.7%
Sector	See Annex 10	- -	- -	- -	- -
Location	See Annex 10	- -	- -	- -	- -
Total number of applications		81	70	109	115

* indicates a significant difference in mean or proportion between the two applicants at 5% threshold.

Note: significant difference in proportion or mean for the first sub-period, namely for contract type, application delay, one education level and one firm size can be observed. Given the shortness of this unexpected sub-period, this type of difference might be inevitable. However, it applied to only a few variables that have no significant influence on the outcome of applications according to Annex 10 and 11.

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[25] French standard weekly worktime = 35h
[26] # of business days between ad publication and application sending

Annex 10. 2ⁿᵈ part of experiment: job applications by sector and applicant's type for the 2 sub-periods

		1st sub-period (from Oct. 1 2012 to Nov. 30 2012)		2nd sub-period (from Dec. 1 2012 to Mar. 19 2013)	
		Control applicant	Test applicant	Control applicant	Test applicant
Sector	Accounting	7.4%	7.1%	12.8%	8.7%
	Association/Union	5.0%	2.9%	5.5%	4.4%
	Transport	1.2%	4.3%	2.8%	6.1%
	Bank/insurance	4.9%	4.3%	4.6%	1.7%
	Construction	6.2%	7.1%	2.8%	4.4%
	Retail trade	4.9%	4.3%	6.4%	4.4%
	Wholesale trade	11.1%	14.3%	12.8%	8.7%
	Audit & consulting	7.4%	1.4%	6.4%	8.7%
	Culture/leisure	3.7%	1.4%	0.9%	4.4%
	Management	1.2%	7.1%	8.3%	4.4%
	Teaching/research	0.0%	1.4%	2.8%	2.6%
	Hotel/restaurant	0.0%	2.9%	0.0%*	4.4%*
	Real estate	11.1%	7.1%	3.7%	4.4%
	Telecom/computer	2.3%	4.3%	3.7%	2.6%
	Health/social	7.4%	5.7%	2.8%	7.8%
	Public organizations	1.2%	2.9%	2.8%	0.9%
	Advertising/communication	3.7%	1.4%	0.9%	1.8%
	Business services	13.6%	8.6%	9.2%	9.6%
	Personal services	4.9%	7.1%	3.7%	5.2%
	Industry/energy/waste	2.5%	4.3%	7.3%	5.2%
Location	Seine-et-Marne	3.7%	7.1%	5.5%	5.2%
	Yvelines	11.1%	11.4%	10.1%	10.4%
	Essonne	9.9%*	0.0%*	6.4%	7.8%
	Hauts-de-Seine	22.2%	14.3%	12.8%	15.7%
	Seine-Saint-Denis	9.9%	8.6%	12.8%	7.8%
	Val-de-Marne	3.7%	11.4%	9.2%	14.8%
	Val-d'Oise	2.5%	8.6%	4.6%	1.7%
	Paris central districts	0.0%	4.3%	6.4%	4.4%
	Paris North-East districts	7.4%	5.7%	3.7%	7.0%
	Paris North-West districts	21.0%	14.3%	13.8%	13.0%
	Paris South-East districts	0.0%*	8.6%*	6.4%	6.1%
	Applicants' district and contiguous Parisian districts	8.6%	5.7%	8.3%	6.1%
Total number of application		81	70	109	115

* indicates a significant difference in mean or proportion between the two applicants at 5% threshold.

Annex 11. 2nd part of experiment: robustness checks for the 1st sub-period

Applicant type						
Control app.	ref.		ref.		ref.	
Test app.	-1.207***	(0.428)	-0.929**	(0.382)	-0.473+	(0.168)
Application delay						
No delay	ref.		ref.		- -	- -
1 day	1.495	(1.066)	1.312+	(0.797)	- -	- -
2 days	0.652	(1.042)	0.404	(0.735)	- -	- -
3 days	-0.011	(1.052)	0.220	(0.784)	- -	- -
4-9 days	0.445	(1.232)	-0.092	(0.932)	- -	- -
Contract type						
Short term contract	ref.		ref.		- -	- -
Long term contract	-0.213	(0.482)	-0.327	(0.464)	- -	- -
Job position						
Accounting assistant	ref.		ref.		- -	- -
Account., secretary and other assist.	-0.718	(0.640)	-1.024+	(0.563)	- -	- -
Accountant	1.095**	(0.533)	0.565	(0.427)	- -	- -
Specialized accountant	0.481	(0.633)	-0.236	(0.502)	- -	- -
Mean wage offer	-0.330***	(0.111)	- -	- -	- -	- -
Required education						
Bac+3	ref.		ref.		- -	- -
Not specified or BEP/CAP	-0.007	(0.900)	-0.333	(0.883)	- -	- -
Bac	-0.101	(1.148)	0.016	(1.086)	- -	- -
Bac+2	-0.443	(0.890)	-0.599	(0.864)	- -	- -
Required work experience						
No experience	ref.		ref.			
6 months-1 year	0.368	(0.659)	-0.042	(0.632)	- -	- -
2 years	0.352	(0.476)	0.079	(0.417)	- -	- -
3 years	0.136	(0.612)	-0.443	(0.558)	- -	- -
4 or 5 years	0.763	(0.681)	-0.241	(0.527)	- -	- -
Public transport time						
Less than 30 minutes	ref.		ref.		- -	- -
31-60 minutes	-0.318	(0.490)	-0.067	(0.432)	- -	- -
61-90 minutes	-1.343	(0.853)	-0.413	(0.648)	- -	- -
90+ minutes	-0.152	(0.689)	0.411	(0.643)	- -	- -
end of the table, see next page						

Firm size						
5- employees	ref.		ref.		- -	- -
6-19 emp.	-1.191+	(0.650)	-0.931+	(0.554)	- -	- -
20-49 emp.	-1.010+	(0.581)	-0.750	(0.501)	- -	- -
50-249 emp.	-0.805	(0.620)	-0.488	(0.503)	- -	- -
250+ emp.	-2.309***	(0.771)	-2.223***	(0.853)	- -	- -
Firm sector						
Accounting	ref.		ref.		- -	- -
Association/Union	5.846***	(1.172)	5.244***	(0.967)	- -	- -
Construction and real estates	5.270***	(0.885)	4.349***	(0.599)	- -	- -
Retail trade, hotel and restaurant	7.021***	(1.157)	5.781***	(0.892)	- -	- -
Wholesale trade	5.718***	(1.126)	4.752***	(0.726)	- -	- -
Audit & consulting	6.304***	(0.932)	5.672***	(0.723)	- -	- -
Culture/leisure	-0.430	(1.193)	-1.178	(1.110)	- -	- -
Management	5.364***	(1.104)	4.435***	(0.906)	- -	- -
Telecom/computer	7.068***	(1.150)	5.354***	(0.909)	- -	- -
Health/social	5.958***	(0.947)	6.026***	(0.870)	- -	- -
Public orga., teaching/research culture/leisure	6.947***	(1.176)	7.150***	(1.075)	- -	- -
Advertising/communication	6.469***	(1.303)	5.645***	(1.123)	- -	- -
Business services	5.418***	(0.967)	4.614***	(0.767)	- -	- -
Personal services, bank and insurance	5.842***	(1.012)	5.293***	(0.844)	- -	- -
Industry, energy, waste and transport	6.574***	(1.065)	5.658***	(0.817)	- -	- -
Firm status						
Private	ref.		ref.			
Public	0.208	(0.643)	-0.015	(0.583)		
Not-for-Profit	-0.212	(0.684)	-0.603	(0.592)		
Time dummies						
Oct. 2012	ref.		ref.		- -	- -
Nov. 1 2012	0.026	(0.402)	-0.018	(0.356)	- -	- -
Constant	-2.434	(1.686)	-5.043***	(1.378)	-0.992***	(0.168)
Observations	151		151		151	
Pseudo-R2	0.355		0.303		0.027	

Robust standard errors in brackets. +, ** and *** mean respectively significant at 10%, 5% and 1% tresholds.
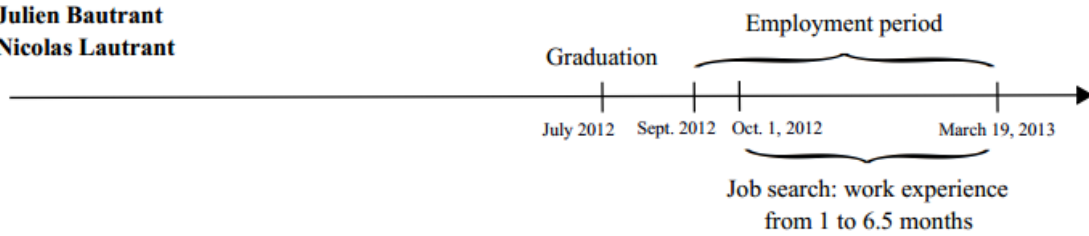
Note: some sectors have to be merged due to perfect predictability of results otherwise. This is the case here for: construction and real estate; retail trade and hotel/restaurant; public organization, research/teaching and culture/leisure; personal services and bank/insurance, and, industry, energy, waste and transport.

Annex 12. Robustness check: 2nd part of experiment for the 2nd sub-period

Applicant type						
Control app.	ref.		ref.		ref.	
Test app.	0.613+	(0.316)	0.614**	(0.312)	0.264	(0.228)
Application delay						
No delay	ref.		ref.		- -	- -
1 day	-1.805***	(0.678)	-1.746***	(0.677)	- -	- -
2 days	-1.197+	(0.662)	-1.197+	(0.654)	- -	- -
3 days	-2.067***	(0.786)	-2.016***	(0.774)	- -	- -
4-9 days	-2.629***	(0.796)	-2.617***	(0.780)	- -	- -
Contract type						
Short term contract	ref.		ref.		- -	- -
Long term contract	-0.815**	(0.367)	-0.865**	(0.353)	- -	- -
Job position						
Accounting assistant	ref.		ref.		- -	- -
Account., secretary and other assist.	0.565	(0.500)	0.501	(0.478)	- -	- -
Accountant	0.989**	(0.463)	0.838**	(0.427)	- -	- -
Specialized accountant	0.646	(0.612)	0.439	(0.562)	- -	- -
Mean wage offer	-0.060	(0.079)	- -	- -	- -	- -
Required education						
Bac+3	ref.		ref.		- -	- -
Not specified or BEP/CAP	-1.031+	(0.539)	-0.932+	(0.560)	- -	- -
Bac	-0.531	(0.648)	-0.469	(0.644)	- -	- -
Bac+2	-0.915+	(0.553)	-0.847	(0.547)	- -	- -
Required work experience						
No experience	ref.		ref.			
6 months-1 year	0.361	(0.416)	0.297	(0.402)	- -	- -
2 years	-0.425	(0.434)	-0.449	(0.419)	- -	- -
3 years	-0.533	(0.480)	-0.597	(0.463)	- -	- -
4 or 5 years	-1.445**	(0.597)	-1.587***	(0.545)	- -	- -
Public transport time						
Less than 30 minutes	ref.		ref.		- -	- -
31-60 minutes	-0.013	(0.365)	-0.020	(0.364)	- -	- -
61-90 minutes	-0.845	(0.521)	-0.910+	(0.526)	- -	- -
90+ minutes	-0.908	(0.766)	-0.866	(0.722)	- -	- -
end of the table, see next page						

Firm size						
5- employees	ref.		ref.		- -	- -
6-19 emp.	-0.479	(0.427)	-0.505	(0.422)	- -	- -
20-49 emp.	-1.990***	(0.654)	-2.012***	(0.614)	- -	- -
50-249 emp.	-0.595	(0.551)	-0.636	(0.528)	- -	- -
250+ emp.	-0.923	(0.959)	-0.948	(0.947)	- -	- -
Firm sector						
Accounting	ref.		ref.		- -	- -
Construction and real estates	-1.283+	(0.696)	-1.165+	(0.667)	- -	- -
Retail and wholesale trade, hotel and restaurant	-1.728***	(0.571)	-1.573***	(0.567)	- -	- -
Audit, consulting and management	-1.428**	(0.583)	-1.380**	(0.590)	- -	- -
Health/social	0.204	(0.714)	0.274	(0.707)	- -	- -
Public organization, teaching/research, culture/leisure	-3.074***	(1.112)	-2.890***	(1.081)	- -	- -
Advertising/communication	-1.003	(1.028)	-1.019	(0.941)	- -	- -
Business services, computer/telecom, industry, energy, waste and transport	-1.308**	(0.521)	-1.194**	(0.510)	- -	- -
Personal services, bank and insurance	-1.257	(0.818)	-1.131	(0.806)	- -	- -
Firm status						
Private	ref.		ref.			
Public	1.982**	(0.902)	1.881**	(0.891)		
Not-for-Profit	0.058	(0.505)	0.103	(0.499)		
Time dummies						
Dec. 2012	ref.		ref.		- -	- -
Jan. 1 2013	0.257	(0.394)	0.238	(0.394)	- -	- -
Feb. 2013	-0.101	(0.415)	-0.100	(0.403)	- -	- -
Mar. 2013	-0.600	(0.406)	-0.661	(0.414)	- -	- -
Constant	3.558**	(1.473)	2.894**	(1.245)	-1.388***	(0.174)
Observations	224		224		224	
Pseudo-R2	0.389		0.387		0.009	

Robust standard errors in brackets. +, ** and *** mean respectively significant at 10%, 5% and 1% tresholds.

Note: some sectors have to be merged due to perfect predictability of results otherwise. This is the case here for: construction and real estate; retail trade, wholesale trade and hotel/restaurant; audit/consulting and management; public organization, research/teaching and culture/leisure; personal services and bank/insurance, and, industry/energy/waste, computer/telecom. and transport.

Annex 13. Experiment timing

Thomas Marvaux
Stéphane Marcueil

Employment period

Graduation

July 2011	Sept. 2011		March 19, 2012	Oct. 1, 2012

Job search: work experience
from 6.5 to 13 months

Julien Bautrant
Nicolas Lautrant

Employment period

Graduation

July 2012   Sept. 2012   Oct. 1, 2012   March 19, 2013

Job search: work experience
from 1 to 6.5 months

Facebook's
layout change

Experiment timing

March 19, 2012   Oct. 1, 2012   Dec. 2012   March 19, 2013

1st sub-period   2nd sub-period

First part of the   Second part of the
experiment   experiment
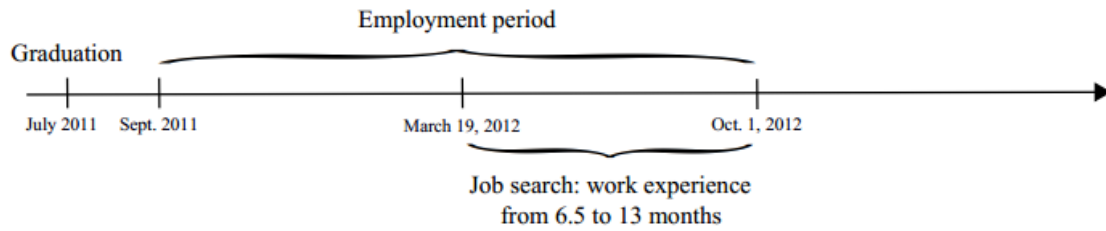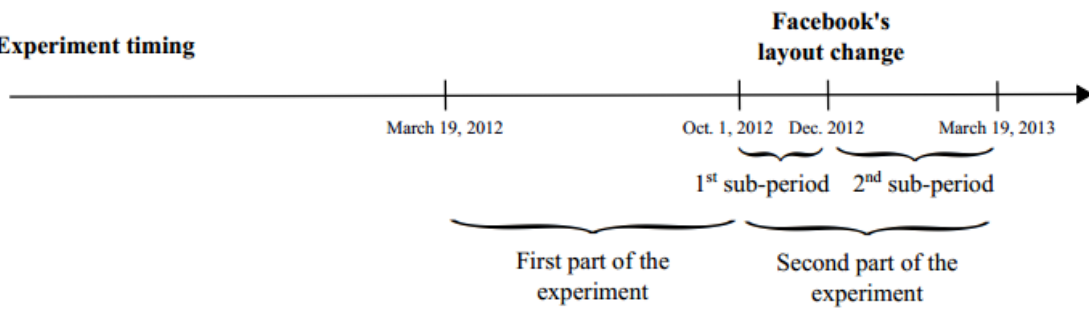
Figure 2: Timing of the experiment

Annex 14. Resume with pre-defined sentences to be matched to a job opening (original version)

Julien BAUTRANT Nicolas LAUTRANT
38, rue ******, 75015 Paris
Permis B
Né le 18 Avril 1991 – 21 ans
Tél. : 06 67 55 *** 06 67 57 ***
Courriel : julien.bautrant@gmail.com nicolas.lautrant@gmail.com

COMPTABLE

FORMATION

2011	LICENCE 3 CCA (Comptabilité, Contrôle, Audit) à l'IAE Gustave Eiffel – Université Paris-Est Créteil, **mention: bien**
2010	DUT GEA (Gestion des Entreprises et des Administrations) option Finances / Comptabilité à l'IUT de Sceaux (92), **mention: bien**
2008	BACCALAUREAT SCIENTIFIQUE (Lycée Louis Armand, Paris 15ème), **mention: assez bien**

EXPERIENCES PROFESSIONNELLES

Depuis Septembre 2011
   **Cabinet ** , Nogent-sur-Marne, Cabinet de Commissariat aux Comptes
   Assistant comptable

Février 2011 à fin Avril 2011 (3 mois)
   **Cabinet ** , Nogent-sur-Marne, Cabinet de Commissariat aux Comptes
   Stage: assistant comptable
      - Comptabilité Générale: révision des comptes, situations annuelles et trimestrielles, déclarations sociales et fiscales, gestion des paies et des charges sociales
      - Comptabilité analytique/contrôle de gestion: saisie, analyse, tableaux de bord -> si demandé dans l'annonce
      - Gestion de Trésorerie: contrôle des situations de Trésorerie
      - Relation avec des comptables et des interlocuteurs de différents secteurs d'activité -> si annonce orientée fournisseur / clients
      - Relation avec des clients internationaux -> si demande d'expérience internationale

Février à fin Mars 2010 (2 mois)
   *******, Vitry, PME du BTP (50 salariés)
   Stage au sein du service comptabilité
      - Comptabilité Générale-Gestion : écriture des paies
      - Gestion du personnel : contrats de travail -> si compétences RH demandées
      - Gestion de Trésorerie: Loi DAILLY -> si gestion de trésorerie, affacturage, rapprochements bancaires, virement des salaires
      - Comptabilité Clients: facturation, relance clients (courriers et téléphoniques)
      - Comptabilité Fournisseurs: négociations des délais fournisseurs, paiement des factures

Février 2009 (1 mois)
   CAISSE D'EPARGNE, Paris 12ème
   Stage au sein du service comptabilité
      - Comptabilité Générale-Gestion: rapprochements bancaires, saisies des paies, standard téléphonique, classement

INFORMATIONS COMPLEMENTAIRES

Anglais: Lu, écrit, parlé
Espagnol: Lu, parlé

Informatique:
   • Logiciels de comptabilité : Ciel, CEGID, SAGE 100, SAP FI -> un seul selon l'annonce
   • Logiciels de Bureautique: Word, Access, Excel (tableaux croisés dynamiques, macros)

Loisirs: football, badminton, takraw et cinéma

Annex 14b. Resume with pre-defined sentences to be matched to a job opening (translated version)

Julien BAUTRANT Nicolas LAUTRANT
38 rue ✶✶✶✶✶✶ , 75015 Paris
Holds a driver's licence
Born April 18th, 1991 – 21yo
Phone:
Email:

<div align="center">Accountant</div>

Training
2011 Diploma in Accounting and Audit, Gustave Eiffel Business School – Paris-Est Créteil University, with second class honors
2010 Technical training in business, organizations and management, Institute of Technology of Sceaux, with second class honors
2008 High school diploma, Louis Armand High School, Paris 15th, with third class honors

Work experience
Since September, 2011 : ALF Auditor, Nogent-sur-Marne. Assistant accountant.

February, 2011 to April, 2011 (3 months)
      ✶✶ Auditor, Nogent-sur-Marne.
Internship: Assistant accountant
- Financial accounting: accounts auditing, annual and quarterly reports, social and fiscal reports, payrolls
- Audit: analysis, reports -> if requested in the opening
- Cash management: control of cash position
- Relationship with other accountants and representatives in various industries
- Relationships with international customers -> if international experience requested

February to March, 2010 (2 months)
  ✶✶✶✶✶✶✶ , Vitry, small business (50 employees) in public buildings and works
Internship in the accounting department
- Financial accounting: payroll
- Human Resources: work contracts -> if HR experience requested
- Cash management: factoring, bank reconcialiations
- Clients accounting: billing, customer reminders
- Suppliers accounting: negotiations of extension, bill payments

February, 2009 (1 month)
      Caisse d'Epargne, Paris
      Internship in the accounting department
Financial accounting: bank reconciliations, payroll, filing

Additional information
English : good
Spanish : read & spoken

Computer skills :
      Accounting software: Ciel, CEGID SAGE 100
      Office software: Word, Access, Excel

Hobbies : soccer, badminton, takraw and movies

Annex 15. Example of a resume sent in an application (original version)

Nicolas LAUTRANT
38, rue ******* , 75015 Paris
Permis B
Né le 18 Avril 1991 – 21 ans
Tél. : 06 67 57 ***
Courriel : nicolas.lautrant@gmail.com

AIDE-COMPTABLE

FORMATION

2012	LICENCE 3 CCA (Comptabilité, Contrôle, Audit) à l'IAE Gustave Eiffel – Université Paris-Est Créteil, **mention : bien**
2011	DUT GEA (Gestion des Entreprises et des Administrations) option Finances / Comptabilité à l'IUT de Sceaux (92), **mention : bien**
2009	BACCALAUREAT SCIENTIFIQUE (Lycée Louis Armand, Paris 15ème), **mention : assez bien**

EXPERIENCES PROFESSIONNELLES

Depuis Septembre 2012
    Cabinet ** , Nogent-sur-Marne, Cabinet de Commissariat aux Comptes
    Assistant comptable

Février 2012 à fin Avril 2012 (3 mois)
    Cabinet ** , Nogent-sur-Marne, Cabinet de Commissariat aux Comptes
    Stage : assistant comptable
- Comptabilité Générale : révision des comptes, situations annuelles et trimestrielles, déclarations sociales et fiscales, gestion des paies et des charges sociales
- Gestion de Trésorerie : contrôle des situations de Trésorerie
- Relation avec des comptables et des interlocuteurs de différents secteurs d'activité

Février à fin Mars 2011 (2 mois)
    ********* , Vitry, PME du BTP (50 salariés)
    Stage au sein du service comptabilité
- Comptabilité Générale-Gestion : écriture des paies
- Gestion de Trésorerie : Loi DAILLY, affacturage, rapprochements bancaires, virement des salaires
- Comptabilité Clients : facturation, relance clients (courriers et téléphoniques)
- Comptabilité Fournisseurs : négociations des délais fournisseurs, paiement des factures

Février 2010 (1 mois)
    CAISSE D'EPARGNE, Paris 12ème
    Stage au sein du service comptabilité
- Comptabilité Générale-Gestion : rapprochements bancaires, saisies des paies, standard téléphonique, classement

INFORMATIONS COMPLEMENTAIRES

Anglais :   Lu, écrit, parlé
Espagnol :   Lu, parlé

Informatique :
    Logiciels de comptabilité : Ciel, SAGE 100
    Logiciels de Bureautique : Word, Access, Excel (tableaux croisés dynamiques, macros)

Loisirs : football, badminton, takraw et cinéma

Annex 15b. Example of a resume sent in an application (translated version)

Nicolas LAUTRANT
38 rue ******* , 75015 Paris
Holds a driver's licence
Born April 18th, 1991 – 21yo
Phone: 06 67 57 ****
Email: nicolas.lautrant@gmail.com

Accountant

Training
2011 Bachelor's degree in Accounting and Audit, Gustave Eiffel Business School – Paris-Est
Créteil University
2010 Technical training in management, finance and accounting with honors
2008 High school diploma, Louis Armand High School, Paris 15th, with honors

Professional experience
Since September, 2011 : ALF Auditor, Nogent-sur-Marne. Assistant accountant.

February, 2011 to April, 2011 (3 months)
            ** Auditor, Nogent-sur-Marne.
Internship: Assistant accountant
- Financial accounting: accounts auditing, annual and quarterly reports, social and fiscal reports, payrolls
- Cash management: control of cash position
- Relationship with other accountants and representatives in various industries

February to March, 2010 (2 months)
     ******* , Vitry, small business in public buildings and works
Internship in the accounting department
- Financial accounting: social and fiscal reports, payrolls
- Cash management: control of cash position
- Clients accounting: billing, customer reminders
- Suppliers accounting: negotiations of extension, bill payments

February, 2009 (1 month)
         Caisse d'Epargne, Paris
         Internship in the accounting department
- Financial accounting: payrolls, sorting

Additional information
English : good
Spanish : read & spoken

Computer skills :
         Accounting software: Ciel, SAGE 100
         Office software: Word, Access, Excel
Hobbies : soccer, badminton, takraw and movies

Annex 16. Cover letter with pre-defined sentences to be matched to a job opening (original version)

Julien Bautrant Nicolas Lautrant
38, rue *******
75015 Paris
Tél. : 06 67 55 *** 06 67 57 ***
Courriel : julien.bautrant@gmail.com nicolas.lautrant@gmail.com

Paris, le 15 mars 2013

Objet : Candidature au poste d'Assistant-comptable – Réf. :

Monsieur Xxxx,

Suite à votre annonce parue sur le site de Pôle Emploi, je vous adresse ma candidature en qualité d'Assistant-comptable. Votre entreprise association établissement cabinet a retenu mon attention pour

son esprit d'équipe, -> si entreprises de taille supérieure à 10 et demande de cohésion,

la mise en avant de l'éthique, -> si grande entreprise, cf. site internet

sa taille humaine, -> si moins de 10 collaborateurs,

son envergure internationale, -> si entreprise internationale, cf. site internet + annonce OU la solidité de son développement, -> si développement local ou national

son expertise, -> si niche

son engagement en faveur du développement durable, -> si développement durable

ainsi que ses exigences de qualité et de rigueur. Ces valeurs correspondent en tous points aux valeurs acquises lors de ma formation et de mes expériences passées.

Diplômé d'une Licence 3 Pro en Contrôle, Comptabilité et Audit (IAE de l'Université Paris-Est), j'ai pu effectuer plusieurs stages me permettant d'acquérir de solides connaissances

en comptabilité générale et en comptabilité clients OU comptabilité fournisseurs OU gestion de paies et des charges sociales OU gestion de trésorerie OU droit du travail OU gestion du personnel -> dépend de la spécialité demandée.

Au cours de ces expériences, j'ai su mener à bien les différentes missions qui m'ont été

confiées dans le respect des procédures

et avec autonomie ==-> si consulting ou poste à responsabilité.==

Ces expériences, notamment dans le cabinet ** et l'entreprise ********* , ont confirmé mon intérêt pour

la diversité des tâches que le métier de comptable implique. ==-> si nombre de tâches demandées important==

la comptabilité générale ==-> si comptabilité générale==

et la gestion de paie. ==-> si ...==
et la gestion de trésorerie. ==-> si ...==
et la comptabilité clients. ==-> si ...==
et la comptabilité fournisseurs. ==-> si ...==

En outre, j'ai su faire preuve d'aisance relationnelle tant avec les clients que les fournisseurs ou bien les autres comptables ==-> si relationnel demandé OU clients / fournisseurs.==

D'autre part, j'ai pu approfondir ma maîtrise des logiciels de comptabilité et de bureautique.

Organisé et rigoureux, je suis d'ores et déjà opérationnel pour accomplir les tâches que vous me confierez. Je serais heureux de vous rencontrer afin de vous exposer plus en détail mon expérience et ma motivation.

Dans l'attente de votre réponse, je vous prie d'agréer, ==Monsieur, Madame, Mademoiselle,== l'expression de mes salutations distinguées.

==Julien Bautrant Nicolas Lautrant==

Annex 16b. Cover letter with pre-defined sentences to be matched to a job opening (translated version)

Julien Bautrant Nicolas Lautrant
38 rue *******
75015 Paris
Phone: 06 67 55 *** 06 67 57 ***
Email : julien.bautrant@gmail.com nicolas.lautrant@gmail.com

Paris, March 15th, 2013

Subject : Application for the Assistant-Accountant Job Opening – Ref. xxx

Sir,

Following your job opening posted on the Pôle Emploi website, I am hereby applying as an Assistant-Accountant. Your company / non-profit organization has attracted my attention because of
its team spirit -> if company larger than 10 and promotes corporate cohesion
its supporting ethical corporate practices -> if large company and indicated on its website
its humane size -> if fewer than 10 workers
its international scale -> if worldwide, see company website and opening
or the strength of its expansion -> if local or national expansion recently
its expertise -> if firm in specific industry
its involvement in sustainable development -> if mentioned
as well as its demands for quality of work and rigor. These values correspond to those I was taught during my training and my past experience.

I hold a diploma in Accounting and Audit (University Paris Est Business School) and several internships allowed me to gain a strong experience
in general and clients accounting OR suppliers accounting OR payroll management OR corporate accounts management OR labour law OR human resources -> depending on the job opening

During those past experiences, I could handle professionally and successfully the tasks I was assigned to.
and with self-management abilities -> if upper-level opening

These experiences, especially in the ** office and the ******** company, have confirmed my interest for
the diversity of the tasks expected from an accountant -> if numerous tasks in the opening
general accounting -> if in the opening
payroll management -> if in the opening
corporate accounts management -> if in the opening

In addition, I have known how to maintain good relations with clients as well as suppliers as well as other accountants. -> if people relations requested

I also had the opportunity to perfect my knowledge of accounting and office software.

Organized and rigorous, I am effective from day one to handle the tasks you would assigned me to. I would be happy to meet you to communicate further my experience and my motivation.

I am looking forward to you answer, and please accept, Sir Madam, my best regards.

Julien Bautrant Nicolas Lautrant

Annex 17. Example of a cover letter sent in an application (original version)

Nicolas Lautrant
38, rue *******
75015 Paris
Tél. : 06 67 57 ***
Courriel : nicolas.lautrant@gmail.com

Paris, le 16 mars 2013

<u>Objet</u> : Candidature au poste d'Aide-comptable – Réf. : ******

Monsieur *****

Suite à votre annonce parue sur le site de Pôle Emploi, je vous adresse ma candidature en qualité d'Aide-comptable. Votre entreprise a retenu mon attention pour ses exigences de qualité et de rigueur. Ces valeurs correspondent en tous points aux valeurs acquises lors de ma formation et de mes expériences passées.

Diplômé d'une Licence 3 Pro en Contrôle, Comptabilité et Audit (IAE de l'Université Paris-Est), j'ai pu effectuer plusieurs stages me permettant d'acquérir de solides connaissances en comptabilité générale et en gestion de trésorerie. Au cours de ces expériences, j'ai su mener à bien les différentes missions qui m'ont été confiées dans le respect des procédures. Ces expériences, notamment dans le cabinet ** et l'entreprise ******** , ont confirmé mon intérêt pour la diversité des tâches que le métier de comptable implique. D'autre part, j'ai pu approfondir ma maîtrise des logiciels de comptabilité et de bureautique.

Organisé et rigoureux, je suis d'ores et déjà opérationnel pour accomplir les tâches que vous me confierez. Je serais heureux de vous rencontrer afin de vous exposer plus en détail mon expérience et ma motivation.

Dans l'attente de votre réponse, je vous prie d'agréer, Monsieur, l'expression de mes salutations distinguées.

Nicolas Lautrant

Annex 17b. Example of a cover letter sent in an application (translated version)

Nicolas Lautrant
38 rue *******
75015 Paris
Phone: 06 67 57 ****
Email: nicolas.lautrant@gmail.com

Paris, March 16th, 2013

Subject : Application for the Assistant-Accountant Job Opening – Ref. ***

Sir,

Following your job opening posted on the Pôle Emploi website, I am hereby applying as an Assistant-Accountant. Your company has attracted my attention because of its demands for quality of work and rigor. These values correspond to those I was tought during my training and my past experiences.

I hold a diploma in Accounting and Audit (University Paris Est Business School) and several internships allowed me to gain strong experience in general accounting and corporate accounts management. During those past experiences, I could handle professionally and successfully the tasks I was assigned to.

These experiences, especially in the ** auditor office and the ******** company, have confirmed my interest for the diversity of the tasks expected from an accountant. I also had the opportunity to perfect my knowledge of accounting and office software.

Organized and rigorous, I am effective from day one to handle the tasks you would assigned me to. I would be happy to meet you to communicate further my experience and my motivation.

I am looking forward to you answer, and please accept, Sir, my best regards.

Nicolas Lautrant

Annex 18. Facebook profile before the layout change

Annex 19. Facebook profile after the layout change: Timeline tab

Annex 20. Facebook profile after the layout change: About tab

Annex 18b Translation of Annex 18: Content of Facebook Profile

"Accueil": homepage

"Retrouver des amis": find friends

"Thomas Marvaux": first name and name of the applicant

"Voici comment votre journal peut être vu par: Public": This is what your timeline looks like to: Public

"Afficher en tant qu'une personne particulière": Display for particular people

"A étudié à IAE Gustave Eiffel - Paris Est": studied at the Gustave Eiffel Business school – East Paris.

"Habite à Paris": lives in Paris.

"De Brive-la-Gaillarde": From Brive-la-Gaillarde (a French city)

"Né le 20 Avril": birth date April, the 20th

"A propos": about

"Vous connaissez Thomas? Si vous connaissez Thomas, invitez-le ou envoyez-lui un message": did you know Thomas? If you know him, invite him or send him a message.
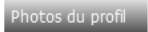
"Emploi and formation": Job position and education

"Lycée Louis Armand - Paris": Louis Armand High School - Paris

"IAE Gustave Eiffel – Paris Est": Gustave Eiffel Business school – East Paris

"2010-2011 Créteil*": year of promotion (2010) and Créteil is the French city where the Gustave Eiffel Business school is located

"IUT Sceaux": Sceaux Institute of Technology

"Promotion 2010 Gestion des Entreprises et des Administrations, Sceaux, Ile-de-France, France": year of promotion (2010) and title of the diploma: Business and administration management, Sceaux, Paris' region.

"Info": information

"A propos": about

"Habite à": location

"Né le 20 Avril": birth date April, the 20th

"Parle Anglais et Italien": speak English and Italian

"Homme": male

"+1 Ajouter": Add friend

"Message": message

"Photos": pictures

"Carte": map

"Album": portfolio

"Photos de profil": profile pictures

Annex 19b. Translation of Annex 19: Content of Facebook Profile

"Accueil": homepage

"Retrouver des amis": find friends

"Voici comment votre journal peut être vu par: Public": This is what your timeline looks like to: Public

"Afficher en tant qu'une personne particulière": Display for a particular people

"Nicolas Lautrant": firstname and name of the applicant

"Journal": journal

"A propos": about

"Photos": pictures

"Amis": friends

"Plus": more

"Vous connaissez Nicolas?": Did you know Nicolas (Lautrant)?

"Pour voir ce qu'il partage avec ses amis. Envoyez lui une invitation": To see what he shares with friends. Send him an invitation.

"A propos": about

"A étudié à Licence 3 CCA à IAE Gustave Eiffel": studied at the Gustave Eiffel Business school for three-year higher education degree in accounting.

"Auparavant: IUT De Sceaux et Lycée Louis Armand": Before at the Sceaux Institute of Technology and the Louis Armand high school.

"Habite à Paris": lives in Paris

"De Marrakech": From Marrakech (Morocco)

"Français (France) . Confidentialité . Conditions d'utilisation . Cookies . Plus": French (France) . Privacy policy . Terms of use . Cookies . More.

"Diplôme de IAE Gustave Eiffel, 2012, Université, Licence 3 CCA": Diploma from Gustave Eiffel Business school, year 2012, University, three-year higher education degree in accounting.

Annex 20b. Translation of Annex 20: Content of Facebook Profile

"Accueil": homepage

"Retrouver des amis": find friends

"Voici comment votre journal peut être vu par: Public": This is what your timeline looks like to: Public

"Afficher en tant qu'une personne particulière": Display for a particular people

"Nicolas Lautrant": firstname and name of the applicant

"Journal": journal

"A propos": about

"Photos": pictures

"Amis": friends

"Plus": more

"+1 Ajouter": add friends

"Message": message

"A propos": about

"Pour voir ce qu'il partage avec ses amis. Envoyez lui une invitation": To see what he shares with friends. Send him an invitation.

"Emplois et scolarité": job and scholarship.

"IAE Gustave Eiffel, Promotion 2012, Licence 3 CCA": studied at the Gustave Eiffel Business school in 2012, three-year higher education degree in accounting.

"IUT De Sceaux, Promotion 2011, DUT GEA, Sceaux, Ile-de-France, France": Sceaux Institute of Technology in 2011, two-year higher education degree in Business and Administration Management, Sceaux, Paris' region, France.

"Lycée Louis Armand, Paris": Louis Armand High School, Paris.

"Lieux de residence": home adress

"Paris, ville actuelle": Paris, current location

"Marrakech, ville d'origine": Marrakesh, origin city

"Informations generals": general information

"Sexe: homme": gender: male

"Langues: Arabe marocain et Français": languages: Moroccan arabic and French