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# Title

The failure of the "Emplois Francs" scheme:

evaluation with repeated testing

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# The failure of the "Emplois Francs" scheme: evaluation with repeated testing

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### Abstract:

"Emplois Francs" is a new public policy in France that provides financial assistance to companies when they hire a job seeker living in a disadvantaged neighborhood, implemented since April 2018 in nearly 200 districts. This study evaluates the effect of this policy by using three waves of correspondence tests spaced six months apart to measure discrimination in access to employment based on origin and place of residence. Despite a small decrease in residential discrimination after six months, we show that the deployment of "Emplois Francs" has not coincided with a change in employment discrimination based on origin and place of residence.

**Code JEL:** J7, C52, C93 **Keywords:** Discrimination in hiring, testing, high-priority neighborhood, French employment

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### Introduction

The "Emplois Francs" scheme consists of awarding a hiring bonus to any company or association, regardless of its location, that recruits job seekers living in disadvantaged neighborhoods. The aim is to reduce the disproportionately high level of unemployment experienced by the inhabitants of these neighborhoods and to reduce discrimination in recruitment.

Through "Emplois Francs", monetary assistance is granted for the hiring of a jobseeker living in a deprived area, classified in France under the nomenclature "*quartier prioritaire de la ville*<sup>3</sup>" (QPV) (high-priority neighborhood). The sum paid is 5,000 euros per year over a maximum of three years for any permanent contract, and 2,500 euros per year over a maximum of two years for any fixed-term contract of six months or more (amounts are pro-rated according to working hours and duration of the contract).

The new policy was piloted from April 2018, in nearly 200 QPVs<sup>4</sup>. The French national employment agency ("Pôle Emploi") pays this benefit to companies upon presentation of supporting documents. Given the size of the amount and the very liberal access conditions (the benefit is applicable to all jobseekers), "Emplois Francs" is likely to have a significant impact on both demand and supply for labor.

The logic behind this scheme is to compensate for the negative signal associated with the address of the candidate, which has been confirmed by several previous correspondence tests (Duguet *et al.*, 2010; L'Horty *et al.*, 2011; Bunel *et al.*, 2016-a and 2016-b, Duguet *et al.*, 2016). This significant subsidy, especially for a permanent contract, can reach nearly 20% of the total labor cost of a minimum wage salary. It should be noted that the benefit is attached to the person, who can use it in his or her job search. Job seekers become ambassadors for the "Emplois Francs" scheme.

The experimental system of "Emplois Francs" is very specific and has no real equivalent abroad. It is part of a broader set of public policies aimed at compensating for the difficulties experienced by people from the most disadvantaged neighborhoods in accessing employment. To combat the spatial concentration of poverty, public action can take two directions. Public policy can try to eliminate employment barriers that exist in deprived neighborhoods, for example by promoting

<sup>&</sup>lt;sup>3</sup> A QPV (Quartier Prioritaire de la Ville) is an area targeted to receive benefits from French urban policy. This name replaces the "Zones Urbaines Sensibles" since 2015.

<sup>&</sup>lt;sup>4</sup> All the districts of Seine-Saint-Denis, the metropolitan areas of Lille and Marseille, the Grand Paris Sud area (including Grigny and Evry in Essonne), the conurbations of Roissy Pays de France and Cergy-Pontoise (Val d'Oise), and the Angers area.

the establishment and development of economic activities in disadvantaged areas – i.e. enterprise zones. Alternatively, it can target the people concerned in order to eliminate the particular barriers they face when they look for a job. Examples of these person-based policies are vocational training or 'Moving To Opportunity' programs.

There is now a large set of empirical evidence evaluating the effectiveness of measures to locate economic activity in deprived neighborhoods through targeted exemptions or the creation of enterprise zones. The literature in this area has produced very mixed results (Neumark and Simpson, 2015). Other types of public intervention, such as infrastructure spending and investment in education, often have better long-term effects. Of the person-based public policies abroad, the most emblematic experiment is undoubtedly the American 'Moving to Opportunity for Fair Housing' (or MTO) program, which has been running since 1994. Several studies have shown the positive impact of this program on the long-term well-being of adults who have received relocation assistance (Katz et al., 2001). In the short term, however, the program had no impact on adult incomes or employment rates. The effects are more mixed for adolescents. Girls experienced substantial improvements in their academic achievement and health, but not boys, whose delinquency rate increased (Kling et al. 2007). In the longer term, the results are much more encouraging: compared to children who did not benefit from the program, those who moved before the age of 13 years went on to higher education in much greater numbers, accessed better universities and earned on average 30% more in adulthood (Chetty et al., 2016). The "Emplois Francs" scheme offers an original and interesting alternative where support is given to companies that hire people living in disadvantaged neighborhoods. This is not assistance with moving or relocating economic activity, but assistance with overcoming the handicap of the address.

The objective of this paper is to measure the effects of "Emplois Francs" on hiring discrimination against job seekers residing in the QPVs. More precisely, we assess the impact of the program on discrimination suffered by those individuals living in QPV neighborhoods who belong to ethnic minority groups. The program is designed to encourage employers to hire people from poor neighborhoods. It should therefore reduce the disadvantages faced by people from deprived neighborhoods.

The second originality comes from the evaluation design. This paper is one of the first to evaluate a public policy by the way of repeated correspondence tests. Measurement was done using three successive waves of discrimination tests carried out before the deployment of "Emplois Francs" in April 2018, then six months and twelve months after the start of the experiment. It is important to note that our methodology does not, strictly speaking, evaluate the "Emploi Francs" policy as we did not test non-experimental QPVs as a control group. However, we were able to monitor the evolution of discrimination over time before and after the deployment of the public action, which makes it possible to provide an interesting and unique insight into the effects of this policy.

We found significant and robust hiring discrimination on the criterion of origin against the fictitious candidate of North African origin in all test territories and for the three occupations tested. However, we found few discrimination against the place of residence. Despite a small decrease in residential discrimination after six months, we show that the deployment of "Emplois Francs" has not coincided with a change in employment discrimination based on origin and place of residence. The study also indicates that the reason for the poor performance of the system does not lie in a lack of information by recruiters about "Emplois Francs". The reason is the low initial level of residential discrimination and the low number of jobs offered by the programs.

The first section provides a brief overview of studies on discrimination in access to employment. The second section describes the "Emplois Francs" policy. The third section presents the data collection protocol. Results are presented in section four and heterogeneity assessments in section five. The last section contains the conclusions.

### **1.** Place of residence and access to employment: an overview

A candidate's place of residence has a decisive influence on his or her chances of getting a job. Firstly, greater distance between the place of residence and the workplace of available jobs complicates the job search and reduces the chances of leaving unemployment according to what is called a *spatial mismatch* effect (Kain, 1968, Fieldhouse, 1999). Secondly, the sociodemographic composition of the territory also influences the chances of accessing employment through the neighborhood effects, peer effects and social networks that can play a major role in a job search (Carcillo et al. 2017). In addition, the presence of local amenities, and in particular, the provision of public and supported jobs, influences the dynamism of a territory in terms of employment and unemployment. Finally, employers may have preferences for employees from a particular location regardless of the commuting distance between home and work. This is referred to as recruitment discrimination based on place of residence. The existence of this type of discrimination in France has only been identified since 2010, while discrimination based on sex or origin in access to employment has been the subject of much work since the early 2000s. Place of residence was only introduced in 2014 as one of the criteria on the basis of which discrimination is prohibited (law n°2014-173 of 21 February 2014 on programming for cities and urban cohesion).

The measurement of discrimination in recruitment is based on a testing method, which makes it possible to compare, all other things being equal, the rates of access to the labor market of fictitious candidates who are similar in all respects, with the exception of the characteristic being tested (Riach and Rich, 2002). Only a pairwise correspondence test can measure the specific effect of place of residence, disassociated from the quality of the candidate's qualifications or distance from place of employment, i.e. other reasons frequently advanced in the literature to account for a location effect. This involves building and sending out two fictitious but realistic *curricula vitae* and cover letters containing the same information about the candidates, with the exception of the non-productive characteristic whose influence is being measured, in this case the place of residence (Petit P., 2003). The two applications are then sent simultaneously in response to the same job offers. This testing method makes it possible to neutralize the effect of other determinants of access to employment since applications are constructed from scratch by the researchers and sent in response to the same job offers. The difference in the rate of call back to job interviews cannot be attributed to selection bias, heterogeneity of candidates, connection to different networks, motivation or job search efforts (Neumark, 2018). Sending the applications to the same offers also makes it possible to eliminate the unobservable fixed effects associated with each company. In addition, the characteristics of the job offers relating to the position to be filled and the company offering it can also be observed.

This type of experimental approach has been used to measure the cross effects of place of residence and origin on employment opportunities in the United States, in Boston and Chicago by Bertrand and Mullainathan (2004). This study showed that living in a privileged neighborhood increases the chances of success, for both blacks and whites in comparable proportions.

In France, the first study of this type was conducted by Duguet *et al* (2010), who showed that, regardless of origin, place of residence had a significant effect on recruitment in the accounting occupation. Duguet *et al* (2016) confirmed this effect for waiters. In the case of computer analysts, L'Horty et al (2011) found that the location of residence had a more pronounced effect for women of French origin. These first studies measured the effect of place of residence for a

given distance from the job. The studies by Bunel *et al* (2016-a and 2016-b) and L'Horty *et al* (2019) measured both the distance effect and the location effect for a place of residence. They confirm the co-existence of the two types of mechanisms: residence in a disadvantaged neighborhood can penalize access to employment both through a specific signal effect of the address and due to greater distance from potential workplaces.

It should be noted that not all address discrimination tests have found significant effects. The study by Tunstall *et al* (2014), which covers three employment areas in Great Britain and Wales, concluded that there was no significant discrimination linked to place of residence in a neighborhood considered poor.

## 2. "Emplois Francs": background and economic mechanisms

The "Emplois Francs" scheme was designed to counteract the difficulties of access to employment encountered by residents of deprived neighborhoods. The unemployment rate in QPVs remains very high, close to 25%, more than two and a half times the national unemployment rate. Difficulties in accessing employment affect all categories of QPV residents, low-skilled people but also graduates. At a comparable education level, QPV residents often find less skilled employment than their urban counterparts. "Emplois Francs" aims to support companies' demand for labor and combat recruitment discrimination by replacing the negative signal linked to place of residence with a positive signal by granting financial assistance to the employer when they employ someone from one of the designated areas.

This benefit amounts to  $\pounds 15,000$  over 3 years for a permanent contract ( $\pounds 5,000$  per year) or  $\pounds 5,000$  over 2 years ( $\pounds 2,500$  per year) for a fixed-term contract of at least 6 months. The amount of the benefit, which is paid every six months, is calculated depending on working hours and the duration of the contract. The eligibility conditions for job seekers are flexible: a job seeker of any age, qualification level, length of time registered with 'Pôle Emploi', working hours and level of remuneration can be recruited under the "Emplois Francs" scheme as long as he or she resides in a QPV covered by the experiment at the time of signing the contract. The procedures are simple: all the employer has to do is send his request for benefit to Pôle Emploi accompanied by the eligibility certificate of the selected candidate (provided by Pôle Emploi) and his proof of address. Pôle Emploi is in charge of processing and paying the benefit.

On the labor demand side, "Emplois Francs" reduces the cost of labor for employers who take on workers residing in QPVs. Theoretically, this type of targeted relief modifies labor demand through two mechanisms. Firstly, it allows profitable companies to improve their margins or lower their prices, which increases demand and production. This increase in activity leads to increased demand for all factors of production, including the employment of employees from non-QPV neighborhoods. Secondly, the benefit reduces the cost of hiring people residing in QPVs, which favors their recruitment over other employees. This substitution effect could inhibit the employment of persons residing outside the QPV. For a given level of qualification and experience, it is likely that the substitution effect will prevail over the volume effect. The expected effect on employment is therefore that it will be positive for candidates from the QPVs and negative for those outside. Since companies tend to favor recruitment of candidates who reside near their potential workplace, it is to be expected that the benefit will have a positive effect on those residing outside the QPVs. In other areas not concerned by the experiment, the effect should be zero or very marginal (from the point of view of general equilibrium).





Source : Pôle Emploi

Graph 1 shows the evolution of the number of validated "Emploi Francs" per month between the beginning of the program and march 2019. The number of "Emploi Francs" peaks in October 2018 at nearly 650 units, then decreases until January 2019. In January 2019, the program is extended to new QPV neighborhoods in France and the overall number of "Emploi Francs" units increases again. Regarding the neighborhoods that were initially targeted by the program and that are

included in our evaluation the maximal treatment intensity is unambiguously October 2018.

### 3. The data collection protocol

Few studies in the literature use correspondence tests to evaluate the effectiveness of a public policy. To our knowledge, the only use of it in France is by Brodaty et al. 2013, to evaluate the 2011 European Year of Volunteering. There are several reasons for using the testing methodology in the evaluation of "Emplois Francs". First of all, "Emplois Francs" is a policy intended to combat employment discrimination based on place of residence. However, the only convincing way to measure discrimination in access to employment is through testing. Discrimination tests provide the only method of measuring the causal effect (all other things being equal) of place of residence on the chances of being offered employment. Second, this method seems to be particularly well adapted to evaluate the "Emploi Francs" scheme in its experimental phase, because the scheme is restricted both temporally and geographically. Finally, the list of QPVs included in the "Emplois Francs" pilot experiment was made known quite late. It was therefore technically possible to collect testing data to provide a "point zero" for access to employment in the QPVs before implementation of "Emplois Francs".

For all these reasons, the protocol we adopted consists of measuring the differences in access to employment based on origin and place of residence, before the introduction of the "Emplois Francs" experiment, for persons residing in a QPV included in the pilot. Thereafter, we repeat this measurement twice every six months, so that we have three data collections before and during the deployment of the "Emplois Francs" scheme.

#### Two discrimination criteria: origin and place of residence

Since the test is repeated several times and testing is a logistically cumbersome operation, we chose a simplified test protocol, with only four profiles. This architecture makes it possible to measure the effects of "Emplois Francs" on discrimination based on both place of residence and origin. The "Emplois Francs" program is intended to act mainly on residential discrimination, but an indirect effect on ethnic discrimination may also be expected. The four profiles of the virtual candidates are as follows: a candidate from outside the QPV acting as a reference; a French candidate with a French first name and surname living in the QPV; a French candidate of North African origin not residing in

the QPV. This test protocol allows the two types of conditional discrimination and cross effects to be measured (see Diagram 1).





The identities of the fictitious candidates were changed for the three waves of testing. We present an example of identities in Table 1.

Identity of the candidate	Features and characteristics
Romain PETIT	French origin, outside QPV (reference)
Alexandre DUBOIS	French origin, QPV
Mohamed M'BAREK	North African origin, outside QPV
Karim BENCHARGUI	North African origin, QPV

### Table 1. Example of identities of the four fictitious candidates

Reading note: in this table we present the identities of the four fictitious candidates applying for a position in an occupation where men are the modal sex.

### Three occupations tested

These tests have been applied to three typical occupations requiring three different levels of qualifications. It is of interest to check whether the "Emplois Francs" scheme produces different results depending on the level of qualification required for the job and the level of contact implied with the company's customers. Other considerations have been involved in the choice of occupations. Priority is given to professional fields with an active flow of offers, in order to avoid the risk of detection and disruption of the labor market. In addition, areas with labor shortages were selected to ensure a high rate of success rates for candidates. Finally, professions with spatially dispersed workplaces were selected, so that the effect of distance from the deprived neighborhood could be assessed.

In view of these considerations, we chose the following three professional fields:

- Accountant and equivalent (Bac level + 5);
- Client manager (CM) in banking, insurance and similar sectors (Bac level + 2);
- Waiter (professional baccalaureate level);

These occupations have a high demand for labor. They are characterized by a high probability of leaving unemployment before twelve months. Selecting an occupation with a large number of job seekers helps to limit the probability of detection of the testing and makes it possible to limit the number of non-discriminatory refusals by employers.

During each test phase, we searched for published job offers in these three professional fields. The various possible sources of job offers were consulted on a daily basis (job offers on sites such as Pôle Emploi, Indeed, LinkedIn, Le Bon Coin, APEC, etc. and specialized sites for the hotel and restaurant industry for example).

For each occupation, the four fictitious applications sent in response to the same job offers are perfectly similar in terms of individual characteristics. They are similar in terms of diplomas, professional experience, quantitative and qualitative experience, and candidates have the same computer and linguistic skills. In the first wave of testing, no fictitious candidate displayed any period of unemployment in their CV and they were in employment at the moment of application. On the other hand, during the second and third wave of testing, the CVs of the four candidates show a two or three month period of current unemployment.<sup>5</sup> Candidates explicitly mention their French nationality, age, mobility (B license and ownership of personal vehicle) and family situation (single, without children). Finally, the four candidates are of the same sex, which corresponds to the modal gender in the profession tested. Thus, the four management controllers were male, while the four account managers and the four waiters in the restaurant business were female. Since the applications were sent simultaneously in response to the same job offers, they had to include some elements of differentiation. These differences are in the presentation of the CVs: type of font, font size, layout, while remaining standard. The experience acquired by the fictitious candidates was in real companies that are different but comparable (in terms of activity, size, market position). The candidates' hobbies are also different, but remain standard and impersonal (sport, cinema, reading, music, etc.).

To ensure that the style or content of a particular application does not systematically influence the companies' selection process (despite the precautions taken to harmonize the applications), we randomly assigned the application format to the four fictitious candidates. For each test, the order in which the fictitious candidates contact the recruiter is also random.

The answer is considered positive when the recruiter invites the candidate to an interview or if they issue a request for more information about his/her current situation or qualifications.<sup>6</sup> On the other hand, the answer is considered negative if the recruiter sends a formal rejection or does not reply.

#### Three waves of testing

The project consisted of deploying this test protocol starting in the first quarter of 2018, before

<sup>&</sup>lt;sup>5</sup> This is to indicate that they can benefit from "Emploi Francs".

<sup>&</sup>lt;sup>6</sup> Responses by phone call and emails are taken into account.

implementation of the policy, scheduled for April (Figure 2) with a repetition every six months. The second wave took place between October and December 2018. The third phase of testing took place between February and May 2019. Overall, this arrangement allowed the obstacles to employment experienced by job seekers from disadvantaged neighborhoods before the implementation of "Emplois Francs" to be compared with obstacles after implementation of this public policy and to measure how they changed.



**Diagram 2: Test schedule** 

### In three *départements piloting the* "Emplois Francs" scheme

Test studies have shown that greater physical distance between home and work reduces the chances of accessing employment (Bunel *et al.*, 2016-a and 2016-b). It is therefore important that the four fictitious candidates be close to each other, so that they are at a comparable distance from each potential workplace within their urban area. We have therefore built sets of three localities close in distance to each other but distinctly different in terms of type of neighborhood with two neutral addresses in urban centers and an address located in one of the pilot QPVs for "Emplois Francs" located nearby. Our candidates can apply for all jobs in the *département*<sup>7</sup> presenting equivalent commuting distances.

We chose to locate our four fictitious candidates in three *départements* of Ile-de-France (Paris

<sup>&</sup>lt;sup>7</sup> In France a *département* is a geographical and administrative unit comparable to a county. There are 101 of them in France with an average population of about 660,000 inhabitants.

region) that are piloting the "Emplois Francs" scheme: Essonne (91), Hauts-de Seine (92) and Seine-Saint-Denis (93). Examples of addresses used are given in Table 2. The QPV addresses were deliberately constructed to give an unambiguous signal of residence in a large complex.

	91	93	95
Neutral	Rue Pasteur (Palaiseau)	Rue de la République	Rue Pasteur (Herblay)
district	Rue Victor Hugo (Brunoy)	(Noisy le Grand)	Rue Victor Hugo
		Rue Victor Hugo	(Beauchamp)
		(Neuilly- Plaisance)	
QPV	Rue de l'Orge, Bât 7,	Boulevard Emile Zola, Bât	Carreaux 2, Rue Scribe
	Escalier B (Evry)	12, Escalier D (Clichy-sous-	(Villiers le Bel)
	Bât. Sud, Rue de la Grande	Bois) Bâtiment Pavillon,	Allée de la Sébille,
	Borne (Grigny)	Avenue	Bât.14, Escalier C
		Blériot (Bondy)	(Cergy)

 Table 2: Addresses of fictitious candidates

### An additional signal of eligibility for "Emplois Francs"

The address of the fictitious candidates indicates their eligibility for "Emplois Francs". We tested the effect of a more explicit signal of eligibility for "Emplois Francs" by adding a direct mention of eligibility for "Emplois Francs" in the cover letter. This mention was specified for both the candidate of presumed French origin and the candidate of presumed Maghreb origin, to limit the risk of detection. Three types of applications were therefore sent out: i) standard; ii) with supplementary information for the QPV candidate of French origin; iii) with supplementary information for the QPV candidate of North African origin. A sample cover letter (sent in wave 2) is presented in Appendix 1.

In wave 3, we tested additional signal reinforcement. Instead of including the mention at the end of the cover letter, we indicated eligibility for "Emplois Francs" in the e-mail sent to recruiters and attached the document drawn up by Pôle Emploi to present the scheme to employers (the leaflet is reproduced in Appendix 2).

### 4. Results of the tests

First, we present some descriptive statistics on the volume of tests performed and the responses obtained, before detailing the results. In total, we responded to 2,436 job offers, with 9,744 applications sent between February 2018 and May 2019.

### Test volume and selectivity of recruiters

Table 3 provides a breakdown of the volume of responses to job offers for the three waves of tests and for the three occupations. Response rates are similar in the three waves, except for client managers for whom the response rate is nearly 7 points higher in wave 2.

Employers are very selective. When they respond to one candidate, in more than two out of three cases, they do not respond to all four candidates at once (Table 4). This selectivity differs across occupations, but is relatively stable between the three waves for all three occupations (although there is an increase in each wave for accountants). In general, we find that the occupations with the lowest response rates (accountants) are not the most selective (waiters).

	and results	IOI Each of th	e three way	les by profess	SION	
	No.	At least	No.	At least	No. Wave	At least
	Tests	one	Tests	one	3 Tests	one
	Wave 1	positive	Wave 2	positive		positive
		answer		answer		answer
Accountant	381	25,46%	300	26%	335	30,15%
Client manager	178	49,44%	142	56,34%	100	49,00%
Waiter	444	44,82%	256	44,14%	300	35,33%
Total	1003	38,29%	698	38,83%	735	34,83%

### Table 3. Tests and results for each of the three waves by profession

Source: TEPP-CNRS, ARTEFACT project.

### Table 4. Employer selectivity

	Wave 1	Wave 2	Wave 3
Accountant	19,59%	24,36%	17,82%
Client	35,23%	35,00%	38,78%
manager			
Waiter	17,09%	18,58%	13,21%
Total	21,25%	24,40%	19,92%

Reading note: the table shows the percentage of recruiters who gave a positive answer to the four candidates, among those who answered at least once to one of the candidates. Source: TEPP-CNRS, ARTEFACT project.

### **Global response rates**

The call-back rates are shown in Table 5. Differences are observed between both professions and candidate profiles. Graph 2, in wave 1, shows that the response rate to applications by candidates of North African origin was about one third of the response rate to the candidates of French origin, regardless of where the candidate resides. The candidate living in the QPV has a slightly lower response rate than the candidate living in a neutral neighborhood, but the difference is not significant.

In the second wave, the differences in response rates between the French and North African candidates do not appear to have changed substantially compared to the first wave. However, it can be noted that the response rates to candidates living in the QPV appear to increase in the second wave: the response rate to the North African QPV profile increases by nearly 5 percentage points and the response rate of the French QPV profile increases by 1 percentage point compared to the first wave. In the third wave, the level of discrimination seems to return to the level of wave 1.

	French	French	North African	North	Total
	neutral district	QPV	neutral district	African	
				QPV	
			Wave 1		
Accountant	17.59	16.01	11.02	10.50	13.78
CM	40.45	39.33	30.34	29.78	34.97
Waiter	33.78	30.86	19.59	18.02	25.56
Total	28.81	26.72	18.25	17.25	22.76
			Wave 2		
Accountant	19.39	20.41	11.22	12.24	15.82
СМ	43.64	47.27	38.18	40.00	42.27
Waiter	31.13	33.02	18.87	23.58	26.65
Total	29.34	31.27	20.08	22.78	25.87
			Wave 3		
Accountant	22.73	17.27	10.00	9.09	14.77
СМ	42.5	40.00	27.50	20.00	32.5
Waiter	28.92	28.92	19.28	20.48	24.40
Total	28.33	25.32	16.31	15.02	21.24

### Table 5. Response rate (%) by presumed origin, place of residence and occupation

Notes: In waves 2 and 3, only offers that did not received any signal concerning the "Emplois Francs" program are kept in the estimate. CM corresponds to the occupation of client manager Source: TEPP-CNRS, ARTEFACT project.



### Graph 2. Response rate by origin and place of residence

Second wave





Notes: The 90% confidence intervals are presented. In waves 2 and 3, only offers that did not received any signal concerning the "Emplois Francs" program are kept in the estimate. Source: TEPP-CNRS, ARTEFACT project.

#### **Pre-existing situation**

The average marginal effects of probit random effects models are presented in Table 6. Random effects, at the level of the job offer, make it possible to take into account the fact that the responses given to different candidates for the same offer are not independent of each other.<sup>8</sup> In Columns (1) and (2), the differences in response rates between candidates are calculated for waves 1, 2 and 3 combined. The estimate is first made with no control variable, then it takes into

<sup>&</sup>lt;sup>8</sup> Linear probability models with fixed effects at the job offer leads to similar results. Results are available upon request.

account the profession (waiter, accountant and client manager), the type of contract (fixed-term contract or permanent contract), the day of the week on which the application is sent, the distance between the candidate's place of residence and the location of the job, the type of CV sent, the order in which the applications were sent, the candidate's *département* and the sex of the recruiter. In Columns (3) and (4), the different test waves are distinguished by a set of indicators to check whether the gap between the results for the potentially discriminated candidate and the reference candidate differs by wave, first excluding the control variable and then including it. Differences in discrimination in the second and third waves, compared to the first, are highlighted using the terms of interaction between the specific wave and the candidate's origin or place of residence.

In wave 1, i.e. before implementation of the "Emplois Francs" scheme, there appears to be discrimination against origin in the responses, but it cannot be concluded that there is discrimination against place of residence. In the first wave, the response rate to the candidates of North African origin is significantly lower by 10 percentage points than to the candidates of French origin, after taking into account all the control variables (column 2, first line). In relative term, it means that the candidates of North African origin received almost 40% less positive responses than the French candidates. On the other hand, there is no significant overall difference in the response rate to candidates residing in the QPV and candidates residing in the neutral neighborhood (column 2, second line). This is a relatively surprising result as different studies have shown the presence of residential discrimination in similar context and using similar protocols (Duguet et al., 2010; L'Horty et al., 2011; Bunel et al., 2016-a and 2016-b, Duguet et al., 2016). However, apart from other suggestion of low residential discrimination at the international level (Tunstall et al, 2014), the most recent results in France seems also to indicate few or no residential discrimination (Challe et al., 2018). This potential reduction in residential discrimination limits the expected effect of the "Emplois Francs" program as well as the capacity of our evaluating protocol to detect the effect.

#### Post-treatment evolution of the situation

There appears to be a drop in discrimination in the second wave i.e. after implementation of the "Emplois Francs" subsidies, but not in the third. This difference relates to the effect of place of residence. In wave 2, there was no significant difference for the candidate of North African origin compared to wave 1. However, the response rate of the candidate living in QPV increases by 3.3

percentage points compared to the candidate living in a neutral neighborhood. The (nonsubstantial) discrimination against the QPV applicants in wave one is eliminated and in the second wave this even becomes an advantage for them over applicants living in a neutral neighborhood. This striking result may be a result of the program, but the effect is not long-lasting since the difference in favor of the QPV candidates is not maintained in the third wave. Discrimination returns to its initial level in wave 3, i.e. one year after the start of the deployment of the "Emplois Francs" scheme.

	(1)	(2)	(3)	(4)
North African	-0.073***	-0.101***	-0.074***	-0.103***
	(0.012)	(0.011)	(0.012)	(0.012)
QPV	-0.007	-0.006	-0.012*	-0.012
	(0.005)	(0.007)	(0.006)	(0.008)
Wave 2			0.002	-0.017
			(0.019)	(0.031)
Wave 3			-0.002	0.013
			(0.020)	(0.029)
Wave 2 × North African			0.011	0.018
			(0.017)	(0.022)
Wave 2 × QPV			0.028**	0.033**
			(0.013)	(0.017)
Wave 3 × North African			-0.012	-0.010
			(0.019)	(0.025)
Wave 3 × QPV			-0.004	-0.003
			(0.014)	(0.019)
Controls	NO	YES	NO	YES
AIC	4776.848	4661.506	4781.166	4668.765
Number of	5,980	5,960	5,980	5,960
observations				

#### Table 6. Response rate gaps by profile and time variation

Notes: \*\*\*, \*\*, \* = significant at the 1%, 5% and 10% thresholds respectively. Average marginal effects are presented. Standard deviations clustered at the job offer are in brackets. The control variables are: the day of the week on which the application is sent, the distance between the candidate's residence and the job location, the type of CV sent, the order in which the applications were sent, the candidate's département, the sex of the recruiter, the type of contract (fixed-term or permanent contract) and the occupation (waiter, client manager and accountant). Random effects at the level of the job offer. In waves 2 and 3, our sample doesn't contain applications where the candidate had provided additional information on his eligibility for "Emplois Francs".

This reduction in residential discrimination limited to the second wave of test can be linked to the

volume of "Emploi Francs" job offers which reaches a peak in October 2018, at the beginning of the second test (Graph 1). The lack of long-lasting effect of the program is thus potentially due to the low intensity of the deployment.

### Effect of a stronger eligibility signal

We show in columns 1 and 2 of Table 5, that the program is not hugely more effective for people of French origin than for people of North African origin. The increased response rate in wave 2 to candidates living in the QPV is significant only for the candidates of North African origin, but no significant variation in discrimination can be observed in wave 3 compared to wave 1 for the two types of applicant.

This result suggests that the "Emplois Francs" scheme has no impact on employers' recruitment decisions in the long run. In order to determine whether this observation could be associated with a possible lack of information held by employers on the "Emplois Francs" system, we tested a stronger signal of eligibility for "Emplois Francs" in two different ways. First of all, during the second wave, one of the candidates residing in QPV explicitly mentions in his cover letter that "Pôle Emploi advised me to mention that by recruiting me you will receive a "Emplois Francs" financial benefit allocated by the government" (see Annex 1).

In the third wave, we used a stronger signal. The candidate eligible for permanent jobs included in his initial contact email in response to an offer, an explanation of his eligibility for permanent jobs and attached the brochure presenting the scheme to employers (see Annex 2). These two additions were alternated in the applications of the candidates of French origin and the candidates of North African origin. In this way, variations in discrimination can be tested according to the information provided by the candidates.

Column 3 of Table 7 features the results for applications which do not mention the existence of the "Emplois Francs" benefit (also column 4 of Table 4). Column 4 shows the results for candidates of French origin whose application mentioned the benefit and column 5 shows the result for those candidates of North African origin whose application mentioned it.

In wave 2, the increased success rate for candidates living in the QPV is only significant for applications with no mention of the "Emplois Francs" benefit.<sup>9</sup> More information on eligibility for

<sup>&</sup>lt;sup>9</sup> The increase is, however, not significantly higher than when "Emplois Francs" mention is added. Therefore, it cannot be concluded that the statement is counterproductive.

"Emplois Francs" does not increase the chances of being invited to a job interview, for either the candidate of French origin or for the candidates of North African origin (the coefficients estimated at the intersection of the Wave 2 x QPV line and the Info columns are not significantly above zero). In wave 3, a stronger eligibility signal does not lead to a significant effect either. These results indicate that the lack of effect of the scheme on the chances of being invited to a job interview does not seem to be associated with a lack of information from employers.

Table 7. Effects of "Emplois Francs" on different sub-populations					
	North African	French	No	Info French	Info North
			Information		African
North African			-0.103***	-0.090***	-0.099***
			(0.012)	(0.011)	(0.012)
QPV	-0.005	-0.016	-0.012	-0.010	-0.011
	(0.008)	(0.016)	(0.008)	(0.008)	(0.008)
Wave 2	0.008	-0.019	-0.017	-0.021	-0.011
	(0.020)	(0.047)	(0.031)	(0.026)	(0.029)
Wave 3	-0.003	0.011	0.013	-0.065**	0.009
	(0.019)	(0.044)	(0.029)	(0.028)	(0.030)
Wave 2 × North			0.018	0.006	0.035
African					
			(0.022)	(0.020)	(0.022)
Wave 2 × QPV	0.028*	0.047	0.033**	0.016	0.030
	(0.016)	(0.032)	(0.017)	(0.018)	(0.019)
Wave 3 × North			-0.010	0.032	0.002
African					
			(0.025)	(0.020)	(0.022)
Wave 3 × QPV	-0.002	-0.007	-0.003	0.024	-0.004
	(0.016)	(0.036)	(0.019)	(0.017)	(0.019)
Controls	YES	YES	YES	YES	YES
AIC	2300.267	2869.61 2	4668.765	4560.376	4546.889
Number of	2.980	- 2.980	5.960	5.956	5.832
observations	,	,	,	,	,

Notes: \*\*\*, \*\*, \* = significant at the 1%, 5% and 10% thresholds respectively. %. Average marginal effects are presented. Standard deviations clustered at the job offer are in brackets. The control variables are: the day of the week on which the application is sent, the distance between the candidate's residence and the job location, the type of CV sent, the order in which the applications were sent, the candidate's département, the sex of the recruiter, the type of contract (fixed-term or permanent contract) and the occupation (waiter, client manager and accountant). Random effects at the level of the job offer. In the first and second columns, in waves 2 and 3, only applications where the candidate did not provide additional information on his eligibility for "Emplois Francs" were selected Source: TEPP-CNRS, ARTEFACT project.

## 5. Heterogeneity of effects

In this section, we assess the heterogeneity of the discrimination levels and variations. Table 8 presents the differences in response rates and variations between the three waves by candidate/job distance, *département* and occupation. For each row, the variables Cat 1, Cat 2 and Cat 3 are related to the characteristic presented in the column. The first third of the table shows the differences in response rates between candidates in wave 1. The second third of the table presents the changes between wave 1 and wave 2 and the last third presents the changes between wave 3, i.e. before and after deployment of the system.

It can be seen that in wave 1, before deployment of "Emplois Francs", discrimination against the candidates of North African origin exists for all three occupations, for the three *départements* and for the three categories of distance between the place of residence and the potential workplace.

Residential discrimination is much less apparent than discrimination on the basis of origin. The QPV candidate has a significantly lower response rate than the "neutral neighborhood" candidate only when the distance between the candidate's residence and the job is between 14 and 20 km. This result is in line with that of Bunel et al, (2016-b) who only found residential discrimination when the distance between the candidate and the position was above a certain threshold. Residential discrimination is also significant for the occupation of accountant.

The period after deployment of "Emplois Francs" is very similar to the initial situation. In the second wave, there is an increase in the response rate to QPV candidates compared to "neutral district" candidates in the Val-d'Oise *département* only. It is not significant across the three occupations or the three distance classes. In the third wave, we do not find any significant difference in the level of discrimination compared to the first wave.

	Distance	Département	Occupation			
Difference in response rate betw	Difference in response rate between candidates in wave 1					
North African × Cat 1	-0.085***	-0.116***	-0.108***			
	(0.016)	(0.018)	(0.017)			
North African × Cat 2	-0.118***	-0.119***	-0.060***			
	(0.018)	(0.020)	(0.018)			
North African × Cat 3	-0.121***	-0.079***	-0.107***			
	(0.019)	(0.017)	(0.019)			
QPV × Cat 1	0.007	-0.003	-0.007			

Table 8. Results by distance between the candidate and the job, *département* and occupation.

	(0.014)	(0.014)	(0.012)
QPV × Cat 2	-0.053***	-0.016	0.015
	(0.015)	(0.016)	(0.016)
QPV × Cat 3	-0.004	-0.015	-0.036**
	(0.014)	(0.013)	(0.014)
Difference in response rate in wave	2 compared to wave	1	
Wave 2 × North African × Cat 1	0.010	-0.008	0.027
	(0.032)	(0.040)	(0.030)
Wave 2 × North African × Cat 2	0.034	0.040	0.033
	(0.036)	(0.038)	(0.039)
Wave 2 × North African × Cat 3	0.005	0.015	-0.028
	(0.037)	(0.032)	(0.043)
Wave 2 × QPV × Cat 1	0.026	0.013	0.031
	(0.029)	(0.027)	(0.024)
Wave 2 × QPV × Cat 2	0.020	0.009	0.034
	(0.029)	(0.035)	(0.029)
Wave 2 × QPV × Cat 3	0.044	0.058**	0.024
	(0.028)	(0.023)	(0.025)
Difference in response rate in wave	3 compared to wave	1	
Wave 3 × North African × Cat 1	0.007	-0.053	0.042
	(0.034)	(0.044)	(0.035)
Wave 3 × North African × Cat 2	-0.053	0.052	-0.052
	(0.038)	(0.038)	(0.043)
Wave 3 × North African × Cat 3	0.002	-0.027	-0.042
	(0.039)	(0.038)	(0.037)
Wave 3 × QPV × Cat 1	-0.012	-0.003	0.027
	(0.030)	(0.028)	(0.024)
Wave 3 × QPV × Cat 2	0.036	0.006	-0.017
	(0.032)	(0.033)	(0.040)
Wave 3 × QPV × Cat 3	-0.023	-0.001	-0.020
	(0.031)	(0.030)	(0.029)
Controls	YES	YES	YES
AIC	4688.122	4672.854	4732.567
Number of observations	5,960	5,960	5,960

Notes: \*\*\*, \*\*, \* = significant at the 1%, 5% and 10% thresholds respectively. Average marginal effects are presented. Standard deviations are in brackets. The control variables are: the day of the week on which the application is sent, the distance between the candidate and the job, the type of CV sent, the order in which the applications were sent, the candidate's département, the sex of the recruiter, the type of contract (fixed-term or permanent contract) and the occupation (waiter, client manager and accountant). Random effects at the level of the job offer. For distance: Cat 1 = "less than 14km", Cat 2 = "between 14 and 20km" and Cat 3 = "greater than or equal to 20km". For the département: Cat 1 = "Essonne", Cat 2 = "Seine-Saint-Denis" and Cat 3 = "Val-d'Oise". For occupations: Cat 1 = "Waiter", Cat 2 = "Client Manager" and Cat 3 = "Accountant". In waves 2 and 3, only applications with no signal concerning the "Emplois Francs" program are kept in the estimate.

### Conclusion

The purpose of this paper is to contribute to the evaluation of "Emplois Francs" using an original repeat testing protocol. Three successive waves of tests, each six months apart, allow us to monitor the evolution of discrimination by origin and place of residence for three occupations and in three *départements*. This test protocol allows us to measure the evolution of employers' preferences for people living in QPVs for whom they receive a benefit once employed, before and after implementation of the measure.

The first test, in the first quarter of 2018, confirmed the presence of discrimination against the candidates of North African origin, to whom the response rate is nearly 11 percentage points lower than to the candidates of French origin. Discrimination by place of residence, on the other hand, appears to be very low and limited to situations where the candidate's place of residence is relatively far from the workplace. Six months after the introduction of the "Emplois Francs" experiment, the response rate to the QPV residents increased significantly compared to those living in the neutral neighborhood. The increase is not continued in the third wave, which suggests a positive effect of "Emplois Francs" at the end of 2018 but not one that is sustained over time. The time-limited effect can be linked with the volume of "Emplois Francs" offered, which peaks in October 2018 at the time of the second test and declines thereafter.

The deployment of the "Emplois Francs" scheme has therefore not been accompanied by a longterm improvement in employment opportunities for QPV residents. This result is not due to insufficient information held by employers on the scheme. When the fictitious candidate provides explicit and clear information on the functioning of "Emplois Francs" directly to the employer, his chances of success do not improve significantly. The low "Emplois Francs" effect is probably mainly due to the low volume of the program. The effectiveness of the program is also limited by the current low level of residential discrimination. This means that mechanisms other than residential discrimination should be affected in order to substantially increase employment in deprived neighborhoods. For example, finding a way to reduce ethnic discrimination may be more effective in increasing employment in these areas.

This study is a first attempt to evaluate a public policy by using correspondence testing methods.

The validity of the evaluation is limited by the absence of a counterfactual group that would have permit to control for the evolution of discrimination in the absence of the program. The study also does not allow for an assessment of a possible effect of the program on any dimension other than the main ones, namely the reduction of residential or ethnic discrimination. Finally, as in other correspondence tests, we do not assess the effect of the program on final access to employment but on the validation of the first stage of the process.

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### Appendix Appendix 1 – Sample cover letter (wave 2)



Pôle Emploi m'a conseillé de vous mentionner qu'en me recrutant, vous percevrez la prime financière des emplois francs allouée par le gouvernement.

en détail.

Je vous remercie par avance de l'attention que vous porterez à ma candidature, et je vous prie de croire, Madame, Monsieur, en l'expression de toute ma considération.

T. ROUSSEL

# Appendix 2 – Information leaflet for employers (wave 3)

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