Rather Thomas than Pieter? A field experiment on discrimination against Flemish workers in the Walloon labor market.

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1 Introduction

According to the Belgian media, discrimination against Walloons would occur in Flanders. These speculations had recently been confirmed by a field experiment measuring labor market discrimination against Walloon workers in the Flemish labor market (Vandevoorde & Van de Walle, 2015a). A direct question that would raise in any Belgian mind is: Has this discrimination something to do with the struggle between Walloons and Flemings to reach a peaceful coexistence in Belgium? Or has it rather to do with cultural differences in work attitudes?

Discrimination in the Walloon labor market is also reality (Ouali & Cennicola, 2013; SPF, 2015). However, no information is available on discrimination of Flemish workers in the Walloon labor market. In this master thesis, we investigate by means of a field experiment if (1) Flemish compared to Walloon workers are discriminated in the Walloon labor. The ground of discrimination we study is that one of “belonging to a different group”. We equally investigate (2) in what extent the culture of Flemings and Walloons impacts discrimination in the Walloon labour market.

This master thesis is structured in the following order. In the next part, we describe the historical struggle between Walloons and Flemings, the actual institutional situation in Belgium and the cultural differences between the Walloon and Fleming. In the third part, we explain thoroughly what culture is, how it can be measured and then link this knowledge on culture to the issue of discrimination. We than present the main theories from the economics of discrimination and try to get more insight in these theories through theories from social psychology. We state at the end of part 3 our main hypothesis on our research question and sub question. In the fourth part, we present in detail our correspondence test that we used to measure hiring discrimination in the Walloon labor market. In the fifth part, we report our results from our correspondence test and explain several reasons for the small number of positive reactions from employers. At the end of the fifth part we give several possible reasons for the unequal treatment of the Walloon applicant and list the limitations of our study. We conclude briefly in the last part and give recommendations for further research.
2 Institutional context
As our research question stated in the introduction, we want to investigate if Flemish job candidates compared to their Walloon counterparts are discriminated in the Walloon labor market on basis of their belonging to Flanders. To get an answer on this question we conducted specially for this study a correspondence study (see part 4). In that test fictitious Flemish and Walloon candidates applied for vacancies in the Walloon labor market. In the results part (see part 5) we will thus report and analyze the callbacks of the Walloon employer in reaction on the applications of the Flemish and Walloon candidate. It is therefore important we understand the context of the Flemish and the Walloon job candidate in the Walloon labor market to better apprehend the Walloon’s employer behavior. Walloons come from Wallonia and Flemish come from Flanders and live thus in two different regions with each its particularities. We show that during Belgium’s history there has been tensions between Flanders and Wallonia.

In the first section of this part we explore the differences that exist between Walloons and Flemish and pay particular attention to the differences in cultural attitudes towards work and how Walloons perceive them. In section 1.2, we investigate the regional disparities in terms of unemployment. This analysis aims to explain the actual situation of the Flemish and Walloon unemployed who are the subject in this study. In the following section, we address the geographic mismatch that exists in Belgium and show that labor mobility can make less severe the negative effects of distance by offsetting shortages in one location with an excess in another (Zimmer, 2012). Next, we report general information on the Flemish population working in the Walloon labor market. We briefly conclude in the last section.

2.1 Cultural differences between the Flemish and the Walloon
Nowadays there are several differences in terms of culture, economy and politics between Flanders and Wallonia. To catch up with these differences it is important we put these differences in its context. We begin therefore with the historical development of Flanders and Wallonia. We will see that Flanders was the least prosperous region in the first half of Belgian history and in that time many Flemings went to work in the Walloon region. Further we show that (among others) language, culture and economy was at the basis of the institutional division of the country in the second half of the 20th century. We think that the effects of this division plays an important role in the perception Walloons and Flemings have about each other. At the end of this section, we investigate differences between the cultural work attitudes of Flemings and Walloons. Since we are interested in the discrimination of the Flemish worker in the Walloon labor market we will especially focus on prejudices and negative stereotypes about Flemish people from the past til now and which can be interesting.

2.1.1 Historical context
Belgium became an independent country in 1830 and its union of Dutch-speaking Flemings in the north and French-speaking Walloons in the south was never a love match (Mnookin & Verbeke, 2006). In the beginning of its history, French-speaking dominated the country in terms of economy, culture and politics and French, the only official language, was thus the language of power. In that way, the French-speaking dominated the Dutch-speaking Flemish
and there was a rampant social and economic discrimination (Mnookin & Verbeke, 2006). The French-speaking elite saw Flemish people who could not speak French properly as backward peasants, suited to manual labor but little else. In that context, the Flemish movement arise. The BertelmannStiftung (2010) writes on that matter the following:

“For Flemings, language has taken on a central role in the struggle for linguistic, political and socioeconomic equality. In the 19th century, for example, the “Flemish movement” derived a majority of its legitimacy from efforts to prevent discrimination against the Dutch language, which was long considered merely a collection of dialects spoken by peasants, and the related oppression of the Flemish population. The language issue and efforts to accord Dutch equal status then converged with a desire to do away with the primacy accorded to the French-speaking bourgeoisie and the socioeconomic oppression of the Flemings, with the result that the conflict’s linguistic dimension occasionally took on the characteristics of a class struggle” Language was thus at the core of an opposition between the Dutch-speaking Flemings and the Belgian French-speaking. It took until 1889 for the “gelijkheidswet” to declare Dutch and French the two official languages of the country (Willeyns, 2002). In the 20th century, two sets of laws in 1932 and 1963 guaranteed what had been the ultimate goal of the Flemish movement: the Dutchification of Flanders (Willeyns, 2002). Today, Dutch is the only official language in Flanders; and French the only official language in the Walloon region. The Belgian language border shapes thus today a strong division in Belgium. After 1963, the linguistic division of Belgium based on the language border would become the basis for further institutional reforms.

During a major part of Belgian history, French-speaking Wallonia was richer than Flanders. Wallonia was until 1880 the second richest region in the world after the United Kingdom (Jamart, 2008). In that context, many poor Flemish people went to work in Wallonia during the flourishing of the Walloon economy. These poor Flemish people came from the countryside and were not qualified for specialized work. They lived in miserable life conditions and gave an image of being poor, boorish, rude, drunk and rusty which has been for a long time a negative stereotype of Flemish people among the Walloons. However, this stereotype seems to be almost inexistent nowadays (Maréchal, 2003).

From 1950, the decline of the Wallonia started and Wallonia lost its economic leadership (Jamart, 2008). At the same time, Flanders gained more economic ground and surpassed Wallonia economically around 1965 (L. Hooghe, 1993). Interesting is that the switch of the economic leadership role corresponds also with a switch in stereotypes on Walloons and Flemings. Until the 1950’s the Flemish people in Belgium were seen as rural, poor and catholic and the Walloons were seen as industrialized, rich and socialist (Jamart, 2008). After the 1950’s, Flanders became highly industrialized region, largely dominating the domestic political, social and economic scene (Willeyns, 2002) which faded out the negative stereotypes on Flemings.

Follow Willeyns (2002) the Belgian linguistic struggle had never been exclusively linguistic. He says that the language problem was related to political, social and economic issues and at a certain time the language problems were replaced by “community problems”. Since 1970,

---

1 See Treffers-Daller and Willeyns (2002) for more information on the historical roots of the Belgian language border that seperates nowadays the Flanders from Wallonia.
Institutional reforms radically transformed the Belgian government into a federal structure and made that Belgium became entirely organized along its language border. On that point, Mnookin and Verbeke (2006) describe well the actual state of Belgium: “Belgium is now organized entirely along language lines. There is no political party, newspaper, radio or television station that operates in both Flanders and Wallonia“ (p. 1).

2.1.2 Separate institutions
The first article of the Belgian constitution reads today: “Belgium is a federal state composed of communities and regions. The power to make decisions is thus not alone in the hands of the federal state but also in the hands of the communities and regions”. The communities consist of the Flemish, French and German-speaking community while the regions consists of the Flemish, Walloon and Brussels-capital region. During the last 50 years of Belgium’s history the country has been institutionally divided and most of the power to make decisions has been concentrated on regional and community level. Flemish and Walloons came increasingly more independent from each other.

Follow a Belgian historian, the historical oppositions, tensions and institutional divisions between Flanders and Wallonia have been a major source of the development of the cultural identity of both Flemings and Walloons (Scheltiens, 2015). Scheltiens says that both regions, Flemish and Walloon are involved in a phenomenon which is called “Othering” or “Alterification”. Flanders and Wallonia have both been fighting for more homogeneity on basis of representation of the other (the Walloons or Flemish). He says: “The other has been represented as aggressor, imperialist and invader and has been generating a self-image of a victimized community in both regions” (p. 426). An illustration of the process in which the both cultural identities have been constructing is that one of the Walloon movement. When the French-speaking were confronted with the language demands of the Flemish, the Walloon movement started to develop a self-image around the “Walloon race” as part of the “latinité” (Scheltiens, 2015). Similarly to Scheltiens, Jamart (2008) says on that matter that during the 20th century, the Walloon movement was developed in competition with the Flemish movement. We think therefore that the Walloon identity has indeed been partially developed by the representation of the other: the Flemings. A question that naturally arises when we relate this issue with our research topic is: Has the Walloons’ representation of the Fleming nourished negative prejudices towards Flemings?

The regionalization of Belgian institutions is not in a position to fight against the negative representation of people in other regions. The regionalization had as result that the media and thus the diffusion of information became organized on regional level. Not any newspaper, radio or television station operates today in both Flanders and Wallonia (Mnookin & Verbeke, 2006). Follow the Belgian political scientist David Sinardet (2007), the separation of media has led to an impermeable media system and made direct information about the other language community very scarce. He continues that political television debates about federal themes have almost never place between representatives of the different language communities. This enforces the stereotyped image of the other language


Apart from the Metro newspaper.
community. He continues that some of our beliefs and attitudes are shaped by the mass media and especially in this day and age of television and movies. Psychology tells us that many of our generalizations are basically products of what we have read, seen on TV, or learned in school without direct supporting experiences (Schneider, 2005). Some psychologists even say that there is little doubt that media create stereotypes (Gunter, 1995). It is thus probable that both Flemish and Walloon media influences at some extent how Walloons and Flemings think about each other.

In conclusion, the struggles between Flemings and Walloons led to the emergence of the actual Belgian federal state. The historical and current struggles and the actual organization of the Belgian institutions (cf. media) shape at a certain extent the perceptions (stereotypes) and emotions that Walloons and Flemings have about each other and themselves. With this background in mind, we are now able to report the cultural differences between Walloons and Flemings, what the media says about it and how they are perceived by both. Since we investigate labor market discrimination in this master thesis, we are especially interested in the Walloons’ and Flemings’ cultural attitudes on work.

2.1.3 Cultural differences between Walloons and Flemings

In the previous sections we saw that the position of economic most prosperous region has switched around 1960’s and that negative stereotypes about the Flemings have been fading out. In this chapter we will first report two major determinants of the differences between Walloons and Flemings. We then focus on the image on how Flemish and Walloons’ work attitudes is represented by the media. Subsequently we will see how Walloons and Flemings rate their own attitudes to work and how they perceive each others’ attitudes to work. Perceptions on attitudes to work are important to get insights in discrimination models such as statistical discrimination of Aigner and Cain (1995); Arrow (1971) (see 3.2.2.). We know from these models that stereotypes on peoples’ general attitudes to work (average work productivity) are taken into account during hiring decisions.

We argue that cultural differences between Flemings and Walloons have at least two important determinants that possibly influence their cultural attitudes to work. Language is central in both of these determinants. The first determinant is that Walloons and Flemings speak a different language. Language is an important characteristic of each ethnicity. Language is also a key source of identity (Aspachs-Bracons, Clots-Figueras, Costa-Font, & Masella, 2008) and social identity (Tajfel & Turner, 1979). The second determinant is that the Walloon identity is different from the Flemish identity. During a major part of Belgian history, the French-speaking Walloons have dominated the Dutch speaking Flemings (see section 2.1.1.) and made the Flemings to distinguish themselves from the Walloons. Now we turn to the existing representations of the Walloons’ and Flemings’ attitudes to work in the Walloon and Flemish media.

The stereotype of “Lazy Walloon and hardworking Flemish” is omnipresent in Flanders (Delepeleire, 2011). For example in a recent newspaper article (M. Hooghe, 2016) in the Flemish media the author questions if the stereotype of “hardworking Flemish and lazy Walloons” is reality or not. They link the stereotype of lazy Walloons with the fact that Walloons strike more than Flemish. The image of the striking Walloon worker is also present in the Walloon press but at a smaller extent. For example, in an article in « Lesoir » “Wallons...
paresseux, Flamands travailleurs: cliché ou réalité” (2016), they question if the stereotype of the lazy Walloon is a cliché or reality and link it to the many strikes in Wallonia. Even if this negative stereotype on the Walloon worker exist in the Walloon media. As we had seen in section 2.1.1. Wallonia started to lack behind Flanders in terms of economic performance because of a severe deindustrialization. The deindustrialization of the Walloon economy had along the second half of the 20th century major negative effects on the Walloon employment. Low employment in Wallonia is still reality. In that respect, the stereotype of hard working Flemish and lazy Walloon is probably nourished by the actual economic situation and the historical economic development in Wallonia and Flanders. To the best of our knowledge there exist no negative stereotypes on work about the Flemish. However, negative stereotypes not related to work are that Flemish are good French speakers but they do not want to. On the other hand, French-speaking people find that Walloons are a lot more social than Flemings (Rasking, 2006).

We report beneath data on cultural attitudes towards work from a paper on labor and values in Belgium (H. De witte & Van den Broeck, 2011). The authors show results that invalidate the above-mentioned stereotypes present in the Flemish and Walloon media. Table 2.1. shows that he Walloon people have a higher score in terms of work compared to Flemish people. On the other hand, Walloons attach less importance to their family and leisure than Flemish people. They add equally that Walloons compared to Flemish have rather an intrinsic than extrinsic work orientation: work is central and is less a medium of financial stability.

**Table 2.1 Share of people that find life aspects important by Belgian region in 2009**

<table>
<thead>
<tr>
<th>Domains</th>
<th>Brussels</th>
<th>Flanders</th>
<th>Wallonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>98</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Labour***</td>
<td>92</td>
<td>87</td>
<td>94</td>
</tr>
<tr>
<td>Friends***</td>
<td>96</td>
<td>94</td>
<td>86</td>
</tr>
<tr>
<td>Leisure</td>
<td>93</td>
<td>98</td>
<td>85</td>
</tr>
<tr>
<td>Religion***</td>
<td>47</td>
<td>41</td>
<td>67</td>
</tr>
<tr>
<td>Politics</td>
<td>41</td>
<td>27</td>
<td>31</td>
</tr>
</tbody>
</table>

(Source: Author’s compilation based on data retrieved (Abts, Dobbelaere, Kerkhofs, & Voyé, 2011)

Note: ***: Difference is significant at p<0.001

Results shown in the previous table are more or less confirmed by European Social Survey data on differences in cultural attitudes on work which are presented in Table 2.2. The variables “I would enjoy having paid job even if I did not need money” and “How important in your life: work”, are not really different for Walloons and Flemings. When looking to more specific variables, we find that Walloons are much intrinsically motivated to work than Flemings. Flemings find it more important to have a good pay and have generous holidays while Walloons find it more important than Flemings to have a responsible and interesting job during which they can achieve something.
Table 2.2 Differences between cultural attitudes on work between Flemings and Walloons

<table>
<thead>
<tr>
<th>Description variable</th>
<th>Scale</th>
<th>Average Flemings</th>
<th>Average Walloons</th>
<th>Difference (t-test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working population</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would enjoy having paid job even if i did not need money</td>
<td>[1(Agree strongly) .. 5 (Disagree strongly)]</td>
<td>2.47</td>
<td>2.45</td>
<td>0.03</td>
</tr>
<tr>
<td>How important in your life: work</td>
<td>1(Agree strongly) .. 4 (Disagree strongly)</td>
<td>1.44</td>
<td>1.40</td>
<td>0.04</td>
</tr>
<tr>
<td>Important in job: responsible job</td>
<td>[0, 1]</td>
<td>0.26</td>
<td>0.44</td>
<td>-0.17***</td>
</tr>
<tr>
<td>Important in job: interesting job</td>
<td>[0, 1]</td>
<td>0.43</td>
<td>0.52</td>
<td>-0.09**</td>
</tr>
<tr>
<td>Important in a job: generous holidays</td>
<td>[0, 1]</td>
<td>0.22</td>
<td>0.09</td>
<td>0.13***</td>
</tr>
<tr>
<td>Important in a job: not too much pressure</td>
<td>[0, 1]</td>
<td>0.27</td>
<td>0.04</td>
<td>0.23***</td>
</tr>
<tr>
<td>Important in a job: good pay</td>
<td>[0, 1]</td>
<td>0.69</td>
<td>0.58</td>
<td>0.11***</td>
</tr>
<tr>
<td>Important in a job: achieving something</td>
<td>[0, 1]</td>
<td>0.32</td>
<td>0.44</td>
<td>-0.12***</td>
</tr>
</tbody>
</table>

Source: Author’s compilation based on information from “Attitudes tegenover Werk Vlamingen VS. Walen” (Baert, 2014) which is based on European Social survey data from 2002, 2004, 2006, 2008, 2010

We go now over to how Walloons and Flemings perceive each others’ attitudes to work. In a book on attitudes of Belgians with respect to migrants (Billiet, Carton, & Huys, 1990) the authors show that Walloons, Flemish and Brussels people perceive Walloons as less diligent than Flemish (see Figure 2.1.) That means that Walloon people perceive themselves as more lazy than the Flemish. However, other results show that Walloons and Brussels people perceive Flemings as less friendly and gentle than Walloons (see Annex 1 and Annex 2).
In conclusion: the stereotype of the hard-working Fleming and lazy Walloon is not as present in the Walloon media as in the Flemish media. Furthermore, the stereotypes on cultural attitudes to work do not really correspond with how Walloons and Flemings rate their own attitudes to work. The Walloon rate himself more intrinsically motivated to work than the Flemish. However, when we look to how Walloons and Flemings perceive each other’s attitudes to work, we find on the one hand that the Walloon perceives the Fleming as more hardworking than himself. On the other hand, we find that the Fleming is perceived by the Walloon as less friendly and gentle than the Walloon.

The entire section 2.1. aimed to develop a better understanding on the historical struggle between Flemings and Walloons, the role of these struggles and separate institutions in the creation of stereotypes and prejudices, and to give a clear idea on the different stereotypes in the media, Flemings and Walloons’ own ratings and perceptions on the cultural attitudes towards work of each other. A study about labor market discrimination goes not without an analysis of the labor market. In the next section, we give general descriptive statistics on the Belgian labor market and pay close attention to the regional differences in terms unemployment that need to shed light on the actual unemployment situations in Flanders and Wallonia.

### 2.2 Unemployment rate in Belgium and its regions

The Belgian administrative⁴ unemployment rate is based on the notion of “not-working job seeker” which means all the people who subscribed as a job seeker at a public employment

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⁴ We privilege the use of the administrative unemployment rate instead of the unemployment rate as used by Eurostat and defined by ILO.
service (CRB, 2009) such as VDAB, FOREM and ACTIRIS. The unemployment rate is thus calculated by dividing the number of not-working job seekers by the active population.

**Figure 2.2 Administrative unemployment rate by region in Belgium, 2003 - 2014**

(Source: Author’s compilation based on data retrieved from website Steunpunt Werk en Sociale Economie (source Steunpunt Werk: Vlaamse Arbeidsrekening on basis of. RSZ-DMFA, RSZPPO, RSVZ, RIZIV, CBS, IGSS, OEA, SEE, RVA, IWEPS, FOD Economie - Bevolkingsstatistieken, DWH AM&SB bij de KSZ (Bewerking Steunpunt Werk)).

**Figure 2.2** shows the administrative unemployment rates by region in Belgium and shows a significant gap in the unemployment rate between Flanders and Wallonia. The figure shows equally that the increase of the unemployment was not high after the crisis for both the Walloon and Flemish region. Belgium suffers from big regional labor market differences. The VDAB (2013) reports that Flanders has high employment and low unemployment while in the Walloon region the structural employment is low. They add that collaboration between Belgian regions is necessary to improve the performances of the Belgian labor market. In the next section we will look closer to the mismatch in the Belgian labor market. **Figure 2.2** shows also that the unemployment rate in Flanders increased between 2011 and 2014.

### 2.3 Mismatch on the Belgian labor market

Belgium has an important gap between its labor supply and labor demand. Zimmer (2012) has calculated a Beveridge curve for Belgium (2001 till 2011) and showed that it tends to shift outwards\(^5\). He shows that for the same level of unemployment rate in Belgium, the job

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\(^5\) See Zimmer (2012) for more information on the Beveridge curve in Belgium
vacancy rate has increased. However, we cannot give much weight to the findings of the Beveridge curve since Zimmer faced a lack of available data during its construction.

The author says that reasons for a mismatch of supply and demand can be cyclical, frictional and structural. On the one hand a slowing down economy means less vacant jobs and consequently in more unemployment. In that case, we would talk about cyclical unemployment. On the other hand, an upturn of the economy translates in the creation of jobs and thus less unemployment. It often takes just a little time before a part of the labor supply and demand can match. The unemployment experience by job seekers during that little time is called frictional unemployment. The cause of labor market mismatches can also be structural. Structural unemployment means that unemployment persists over time and is not due to the conjuncture of the economy neither to frictional tensions in the labor market. Structural unemployment can be caused for example by job seekers that living too far from corresponding jobs (geographic mismatch) or employers’ needs that not correspond with the education of job seekers. According to VDAB, Flemish employers have a lot of difficulties finding workers to fill their vacancies (VDAB, 2013). Therefore since there is a lot of structural unemployment in Wallonia and less in Flanders, it seems reasonable to stimulate Walloon unemployed to apply for jobs in Flanders. Since 2007, the VDAB has been encouraging Walloon labor forces in Flanders to strengthen the labor mobility of Walloon unemployed to the Flemish labor market. However, the promotion of Walloon labor forces cannot happen unorganized since a recent study about labor market discrimination (Vandevoorde & Van de Walle, 2015a), proved that Walloon workers are decimated in the Flemish labor market. Therefore, Walloon job candidates should be recommended to apply for bottleneck occupations in the Flemish labor market since discrimination is found to occur less when employers have difficulties to fill their vacancies (Stijn Baert, Bart Cockx, Niels Gheyle, & Cora Vandamme, 2013a).

In this study, we focus on the mobility of Flemish unemployed to the Walloon labor market. We are therefore interested in the extent to which the structural unemployed in Flanders, even if they are few, can be matched with Walloon job vacancies. Like the Flemish employers, Walloon employers also face structural recruitment difficulties. Since 2006, virtually 10 occupations in the Walloon labor market have been permanently classified as bottleneck occupation (Dejemeppe & Van der linden). In that sense, Flemish structural unemployed people could increase considerably their probability to find a job by applying for bottleneck occupations in the Walloon labor market. However, it is not sure to what extent the Flemish structural unemployed could fill Walloon vacancies for which Walloon employers face structural recruitment difficulties since Zimmer (2012) has shown that the Flemish and Walloon region have similar bottleneck occupations.

The number of Flemish residents who work in Wallonia, and vice versa, is still relatively small and it is therefore clear that the language border is a labor market border6. In the next section we go deeper into the inter regional labor mobility in Belgium and especially into the mobility of the Flemish worker to the Walloon labor market and its evolution over time.

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6 See Dejemeppe & Van der Linden (2013) and Zimmer (2012) for more information on the problems of inter regional labor mobility in Belgium
2.4 Inter-regional labor mobility in Belgium

Our study object is the Flemish job candidate who applies for jobs in the Walloon labor market. But what is the profile of the actual Flemish workers in Wallonia and how has their number been evolving over time?

Figure 2.3 shows that, thousands of employees from Flanders, Wallonia and Brussels daily commute to work in another Belgian region. Most of the Flemish and Walloon commuters work in the Brussels region. The Flemish (Walloons) cross the language border to work in Wallonia (Flanders) much less. Some possible reasons for relative lower inter regional labor mobility between Flanders and Wallonia can be due to for example: (i) not knowing a second national language, (ii) not having a driving license, (iii) the limitations of public transport from both regions and (iv) cultural differences between regions (Dejemeppe and Van der Linden, 2013).

Figure 2.3 Inter regional labor mobility of employees in Belgium in 2010

(source: annual report of Forem; ONSS – 2010/4 and INAMI June 2011)

We see in Graph 2.1 that the evolution of the number of Flemish (Walloon) workers in Wallonia (Flanders) in 2013 is virtually at the same level as in 2006. However, the number of Flemish (Walloon) workers working in Wallonia (Flanders) increased till the financial crisis of 2008 and decreased till 2012 and increased again slightly from 2012 till 2013 We know that since 2006 FOREM, VDAB and Actiris automatically exchange vacancies with each other for bottleneck occupations. This exchange is inscribed in an agreement signed in 2005 between the Flemish, Walloon and Brussels region to exchange information on labor supply and demand (Zimmer, 2012). This exchange of information can explain the increase in labor mobility between Flanders and Wallonia till 2008. The little increase of the labor mobility from Flanders to Wallonia from 2012 till 2013 can be due to the recovery of the Belgian economy.
Graph 2.1 Evolution of number of Flemish people (Walloons) working in Wallonia (Flanders)

(Source: Authors’ compilation based on data from VDAB, R. Misplon, personal contact, 12 August 2016)

Graph 2.2 shows that most of the Flemish employees work in the provinces of Hainaut, Walloon Brabant and Liège. These 3 provinces are located closer to Flanders than the other Walloon provinces: Namur and Luxemburg. Most Flemish workers in Hainaut come from West-Flanders while in Liège most Flemish workers come from Limburg and Flemish workers in Walloon Brabant come majorly from Flemish Brabant. Most of those Flemish employees that work in the Walloon province live in the Flemish province just above the Walloon province where they work. However, it is important to be careful when reporting and interpreting data for inter-regional labor mobility towards Wallonia because according to VDAB (2016), a considerable part of the inter regional labor mobility from Flanders to Wallonia is represented by Walloons living in Flanders but working in Wallonia.
Graph 2.2 Flemish employees working in the Walloon region (by province)

(Source: Authors’ compilation based on data from VDAB, R. Misplon, personal contact, 12 August 2016)

Graph 2.3 shows that most Flemish employees in Wallonia work in the tertiary sector (54%), 24% work in the quaternary sector, 21% in the secondary sector and only 1% in the primary sector.

Graph 2.3 Flemish workers in Wallonia per sector in 2013

(Source: Authors’ compilation based on data from VDAB, R. Misplon, personal contact, 12 August 2016)

We conclude that inter regional labor mobility is still very small between the Walloon and Flemish region compared to the Flemish and Walloon commuters going to work daily in the Brussels region. The number Flemish employees working in Wallonia decreased since the beginning of the economic crisis in 2008 and started again to increase in 2013. It is not known if this increase has been going on till now. In 2014, most of these Flemish workers were
employed in the tertiary sector and majorly spread over the provinces Hainaut Liège and Walloon Brabant.

2.5 Conclusion
In the second part of this master thesis, we explained the context of our research question. The first section aimed to give the reader the required back-ground information to better understand our research question. We exposed the historical struggle between Flemings and Walloons to explain the actual institutional situation in Belgium. We saw that struggle between Flemings and Walloons and the actual institutional organization in Belgium can be a source of opposition, stereotypes and prejudices. We gave equally information on cultural differences and how they are perceived. We argued that cultural differences between Walloons and Flemings have at least 2 main determinants and that language is central. Further, we have shown that cultural attitudes towards work of both Walloons and Flemish are very similar. The Walloons even valorize labor more than the Flemish. However, perceptions of each other’s attitude to work and each other’s employed effort is different. On the one hand, the Walloons perceive Flemish people as more diligent but on the other hand Walloons perceive themselves as more friendly and gentle than Flemish. We have shown that it is possible that negative and positive stereotypes seem to be influenced by the struggle between Flemings and Walloons as also by the regionalized media that plays especially a big role in the diffusion of stereotypes.

As many institutions in Belgium, the Belgian labor market is also regionalized. The Belgian regions show big disparities in terms of unemployment. For example, the unemployment rate is very low in Flanders and many Flemish companies face difficulties in filling their vacancies while in Wallonia the unemployment rate is at least twice as high than the one in Flanders. Wallonia and Flanders face a similar problem: structural recruitment difficulties. It is therefore unclear to what extent the Flemish unemployed, the subject of our study, can fill vacancies of those Walloon employers facing structural recruitment difficulties.

In the last section of this part we saw that the number of Flemish employees working in the Walloon labor market has increased since the exchange of labor market information between VDAB and FOREM but decreased again during the economic crisis till 2012. Since 2013, the number of Flemish employees in Wallonia started to increase again and we expect it to increase more with the actual recovery of the Belgian economy.

We know from a recent study (Vandevoorde & Van de walle, 2015) that discrimination is an obstacle for the mobility of the Walloon unemployed towards the Flemish labor market. In the same light, we investigate in this study if discrimination is thus an obstacle for the mobility of Flemish workers towards the Walloon labor market.
3 Literature review

In this part, we aim to frame our research question in the international literature. Our research question and sub question are the following: “Are Flemish job candidates compared to their Walloon counterparts discriminated in the Walloon labor market because of their belonging to Flanders?” and the sub question “To what extent can our results on discrimination of the Flemish job candidate in the Walloon labor market be explained by culture?” We believe that the Flemish (Walloon) culture is a good instrument for the belonging to Flanders (Wallonia) and we focus therefore in this literature review especially on the relation between the candidates’ culture and discrimination.

The literature review has two sections. We shed light on the concept and definition of culture and how it can be measured in the first section. At the end of the first section we report briefly how culture can impact people’s attitudes towards work and labor market outcomes. In the second section, we go deeper into the concept of discrimination and define cultural discrimination. Further on, existing models of discrimination from Economics are presented and we try to see how psychology can give more insights in the mechanisms behind discrimination. At the end of section 2, we present the limits and advantages of the correspondence test methodology (see part 3) that we used in this study. We conclude at the end of section 2 with a general conclusion on part 2 and state our hypothesis on our research question and sub question.

3.1 Culture

We want to know how culture can explain the results on discrimination from our correspondence test. We focus on how culture is important for the determination of people’s attitudes to work and other elements that impact the productivity of the employees during their work. Therefore, we first need to investigate what culture is, how it can be defined and how we can measure it.

3.1.1 Definition of culture in economics

Since culture is very large and complex, many researchers from different academic fields have tried to define it. A researcher that contributed a lot to the literature on culture is Geert Hofstede. He argues in a paper (Hofstede, 2003) that “there exist different paradigms in the social sciences about the meaning of “culture” leading to different research approaches”. Since there exist several paradigms about the meaning culture we will restrict us to some key definitions.

However, since we want to know the impact of culture on discrimination we need to have an empirical definition of culture. We agree with Guiso, Sapienza, and Zingales (2006) who says that “an inevitable but necessary first step is to define culture in a sufficiently narrow way, so that it becomes easier to identify a causal link from culture to economics outcomes” (p 23). We are interested in measuring cultural differences between Flanders and Wallonia. A good definition on cultural differences is the one of Fernandez (2010):“Cultural differences are differences in the distribution of social preferences and beliefs” Other recent definitions (Fernandez (2007); (Guiso et al., 2006) employed by economists are similar to Fernandez’s and focus on social preferences and beliefs. The definition of preference given by the Oxford dictionary is “favor shown to one person or thing over another or others”. In that sense
preferences are influenced by values which are defined by Oxford dictionary as “(1) principles or standards of behavior and (2) one’s judgement of what is important in life. Preferences are thus at the basis of people’s daily choices and motivations. Economists also use frequently the word values instead of preferences. Belief is what people accept as true.

Another definition used in different academic domains is Hofstede’s (2011): “culture is the collective programming of the mind that distinguishes the members of one group or category of people from others” (p. 3).

3.1.2 Measuring culture

Now that we have defined culture we want to know how we can measure cultural differences between Walloons and Flemish. Based on the previous definition of culture we understand that different cultural groups will show different data in terms of preferences (values) and beliefs. Alesina and Giuliano (2015) explain there are three ways how preferences and beliefs of a cultural group can be measured: by social surveys, by an epidemiological approach and by laboratory experiments. We explain these 3 ways beneath.

Social surveys are the most widely used tool to measure culture. Answers on social survey questions are mostly classified by nationality and measure preferences and beliefs. Examples of surveys that contain data on Belgian beliefs and preferences are the World Values Survey (WVS), the European Social Survey (ESS) and the General Social Survey (GSS). Social survey data is calculated for each cultural group and their differences in cultural outcomes can be tested statistically. However, the correlations between data on preferences and values and cultural groups face problems of reverse causality and omitted variables7 (Alesina and Giuliano, 2015). Another drawback of social survey data is that they are not available for a long time period but only for recent years.

A second way to measure culture is by an epidemiological approach, such as by Fernandez (2006). This method has been less used than social surveys. It consists out of looking to how descendants of immigrants from several different countries behave in the same country. The method enables the researcher to control for economic and institutional factors (Fernandez, 2007). However, culture measured through an epidemiological approach neglects another important manner of transmitting culture: the transmission of culture from a society to an individual which is also known as: horizontal transmission of culture (Brügger, Lalive, & Zweimuller, 2009). The vertical transmission of culture is the transmission of culture by parents to children and is at the core of the epidemiological approach. The transmission of culture by the society of the immigrants’ country of origin is inexistent in the epidemiological approach. According to Brügger et al. (2009), horizontal transmission is more important than vertical transmission of culture.

A third way to measure culture of a cultural group is by conducting a laboratory experiment. An economist that has been using experimental data for the measure of a cultural groups’ preferences and beliefs is Henrich (2001). The problem with experimental evidence is external validity. Results on culture collected from games played between different cultural groups are

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7 For more information on how economists have tried solving problems on reverse causality and omitted variables in the relation between culture groups and preferences and values, we recommend Alesina and Giuliano (2015).
very difficult to be extrapolated to an entire cultural group, such as to an entire ethnicity or country (Alesina and Giuliano, 2015).

Since culture is very broad, it has also many dimensions. We focus here on the cultural dimensions with a strong relationship to economic outcomes. Gerard (2016) gives a thorough list of these cultural dimensions used in economics and we report them here briefly. A first cultural dimension is trust and is the most widely studied cultural dimension. The importance of trust is at the core of each economic transaction. The general relationship between trust and economic outcomes is positive (see (Algan & Cahuc, 2010; Knack & Keefer, 1997). A second dimension is Hofstede’s dimension of individualism vs. collectivism. The relation between individualism and economic outcomes is positive (see for example (Gorodnichenko & Roland, 2011)). Another dimension is embeddedness and autonomy, which shows a positive relationship between autonomy and economic outcomes. Beliefs in effort vs. luck is a fourth dimension (see (Alesina & Angeletos, 2005). A stronger belief in effort correlates with better economic outcomes. A fifth dimension is beliefs and values on gender roles (Fernandez & Fogli, 2006). Another dimension is family values. Research does not find effects from family values on economic outcomes in one specific direction. A last cultural dimension according Roland (2016) is the culture of honor. A culture of honor would generate violence and therefore reduce cooperation.

Several of these cultural dimensions mentioned above are intercorrelated (Alesina and Giuliano, 2015) and are also limited to the dimensions of culture related with economic outcomes. Hofstede (2011) suggests a comprehensive group of 6 general cultural dimensions. His 6 dimensions are (1) Power distance, (2) uncertainty avoidance, (3) Individualism versus Collectivism, (4) Masculinity versus Femininity, (5) Long Term versus Short Term Orientation and (6) Indulgence versus Restraint. We found data on 4 of Hofstede’s dimensions for Flanders and Wallonia which are reported in Table 3.1 below.

<table>
<thead>
<tr>
<th>Country or region</th>
<th>Power Distance</th>
<th>Uncertainty Avoidance</th>
<th>Individualism</th>
<th>Masculinity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flanders</td>
<td>61</td>
<td>97</td>
<td>78</td>
<td>43</td>
</tr>
<tr>
<td>Belgium</td>
<td>65</td>
<td>94</td>
<td>75</td>
<td>54</td>
</tr>
<tr>
<td>Wallonia</td>
<td>67</td>
<td>93</td>
<td>72</td>
<td>60</td>
</tr>
<tr>
<td>Netherlands</td>
<td>38</td>
<td>53</td>
<td>80</td>
<td>14</td>
</tr>
<tr>
<td>France</td>
<td>68</td>
<td>86</td>
<td>71</td>
<td>43</td>
</tr>
<tr>
<td>Ireland</td>
<td>28</td>
<td>35</td>
<td>70</td>
<td>68</td>
</tr>
<tr>
<td>Sweden</td>
<td>31</td>
<td>29</td>
<td>71</td>
<td>5</td>
</tr>
<tr>
<td>US</td>
<td>40</td>
<td>46</td>
<td>91</td>
<td>62</td>
</tr>
</tbody>
</table>

(Source: retrieved from Buysse and Sleuwaegen (2010))

From Table 3.1 we understand that Wallonia and Flanders have very similar scores for Power distance, uncertainty avoidance, individualism except for masculinity. Remarkable is that Flanders, a Dutch-speaking region shows more similar scores with the French-speaking region Wallonia and France than with the Netherlands, a Dutch-speaking country.

Once preferences and beliefs are measured, a second step is to show the culture’s impact on economic outcomes (Guiso et al., 2006). One way to measure the relation between culture
and economic outcomes consists of correlating data for cultures’ preferences and beliefs from social survey data with these cultures’ economic outcomes. Another way is to use an epidemiological approach such as in Fernandez’s (2009) (see above).

We conclude from this section that it is possible to measure preferences and beliefs that characterize cultural groups. It is equally possible to correlate preferences and beliefs with economic outcomes. In the context of our paper, we are interested of the impact of culture on labor market discrimination. As we will explain in part 4, we use a correspondence test to find the impact of the belonging to a cultural group on labor market discrimination. In the next section, we explain the link between culture and hiring discrimination and go deeper into the origin of discrimination and relate these models and theories to our study.

3.2 Culture and hiring discrimination
The objective of this part is to show what hiring discrimination and hiring discrimination on cultural grounds mean. We present 2 main discrimination models of the economics of discrimination and then try get more insights in those models by discrimination theories from the social psychology literature. At the end we discuss the limitations and advantages of the correspondence study we will use to measure discrimination in the Walloon labor market. In the conclusion, we present our main hypotheses to our research question and its sub question.

3.2.1 Definition of discrimination
Discrimination is defined as the action of favoring or disfavoring an individual only because of his belonging to an actual group (Sue, 2003). Following this definition, hiring discrimination would occur when the access to the labor market is be blocked because of the belonging to that group. Considering our research question, discrimination would occur if Walloon employers prefer Walloon upon Flemish candidate just because the Flemish candidate belongs to Flanders. In the Belgian law, hiring discrimination occurs when someone is, for unjustified reason, unequally treated in the access to employment on basis of one of the grounds of discrimination (J. De Witte & Delruelle, 2009). The 19 grounds for discrimination are race, skin color, nationality, ancestry, national or ethnic origin, disability, philosophical or religious beliefs, sexual orientation, age, wealth (financial resources), civil status, political beliefs, trade union membership, state of health, physical of genetic characteristics, birth, social background, gender, and language (J. De Witte & Delruelle, 2009). Culture is not part of this list. However, some elements characterizing culture do appear on this list, such as ethnic origin, political beliefs, social background, and language. Based on the definition of discrimination and culture (see 3.1), we define discrimination on cultural grounds as the unjustified unequal treatment of an individual because of his belonging to a certain cultural group characterized by specific beliefs and values. Belgian anti-Discrimination law shows thus that discrimination is illegal, however discrimination on cultural grounds is not explicitly defined as ground of discrimination. It is therefore unclear how effective Belgian anti-discrimination law would be to fight against discrimination on cultural grounds.

Now we have defined hiring discrimination on cultural grounds we will now go into the economics of discrimination to understand the mechanisms behind labor market discrimination.
3.2.2 Origin of hiring discrimination

Economics has two main theories on discrimination. The first model is the taste based discrimination model developed by Gary Becker (1957). Follow his model individuals are assumed to act as if they have “tastes for discrimination”. A person’s taste for discrimination is based on prejudices against certain characteristics of groups such as race, religion, gender, social class, ethnicity, etc. In that sense, discrimination is economically irrational. Becker defined 3 different types of taste based discrimination: employer discrimination, employee discrimination and consumer discrimination. He says “When an employer discriminates against employees, he acts as if he incurs non-pecuniary, psychic costs of production by employing them; when an employee discriminates against fellow employees or employers, he acts as if he incurs non-pecuniary, psychic costs of employment by working with them; when a consumer discriminates against products, he acts as if he incurs non-pecuniary, psychic costs of consumption by consuming them” (p58).

Becker’s model should be put in perspective. The model of Becker was developed in the 1950’s in a context were racial discrimination was highly present in the United States. As he said himself in the Economics of Discrimination published in 1954: “Discrimination of Negroes was obvious in US as in Europe....” More precisely, the irrational basis of discrimination as described by Becker as “taste for discrimination” was probably much more present in that time then it is right now. To put it more straightforwardly: A black president in the 50’s would probably never have been possible in the USA. The world has evolved and has become more tolerant on that matter.

When putting Becker’s model in the context of this study, we can question if Walloons are prejudiced against Flemish people? In part 1, we have shown that through the history of Belgium, the Belgian French-speaking elite was probably prejudiced against the Dutch-speaking Flemish. Nowadays these prejudices seem to be inexistent. The taste for discrimination can however not be the only explanation for labor market discrimination. Arrow (1971) criticized the model of Becker and said about discrimination the following “Discrimination can be thought of as reflecting, not tastes, but perception of reality” (p. 25).

Arrow (1971) developed another model of discrimination, called statistical discrimination, and putted rationality at the core of the concept of discrimination. Statistical discrimination occurs when employers face imperfect information on the candidates’ real productivity. Employers will therefore base their hiring decisions on their perception of the candidate’s average group productivity. Since people’s perception are at the basis of stereotypes, employers hiring decisions will also be based on stereotypes of the candidate’s average group productivity. In part one, we saw how Flemish and Walloon perceive each other in terms of effort and work. The Walloon perceives the Flemish as more diligent than himself.

Both taste-based and statistical discrimination are interesting models but their respective core concepts, prejudices, and stereotypes, are seen in economics as two independent concepts. However, this seems not be the case in Psychology. In a handbook on stereotypes, prejudices and discrimination (Scheider, 2005) the author says that beliefs (stereotypes), emotionally charged attitudes (prejudices), and behavior (discrimination) are related in many ways and often create a set of complex knots that are hard to untie. This is an important reason to consider psychology. Some economists argue for enhancing economic discrimination models...
with knowledge from other fields. For example, Charles & Guryan (2013) questions if the analysis of discrimination should be limited to statistical discrimination and taste-based discrimination and say the following: “Scholars in fields besides economics routinely study discrimination and we believe that much might be gained from engaging with ideas from these other disciplines” (p. 428). Furthermore, in a paper on the use of field experiments in economics (Bertrand & Duflo, 2016) authors say that psychology overcomes the strong division that economists view between taste-based and statistical discrimination. They argue also that the discrimination models based on concepts of taste are reduced and that other models take group membership as an important factor of social identity.

In conclusion, the statistical discrimination model has imperfect information and stereotypes as central concepts while taste based discrimination has prejudices as central concept. Stereotypes and prejudices in the economics of discrimination are separated concepts but in psychology stereotypes and prejudices are interrelated. In the next section, we will see which insights we can get from the social psychology of discrimination.

3.2.3 Insights from the psychological literature

Some economists have already integrated insights from psychology into the economics of discrimination. For example, Bertrand, Chugh, and Mullainathan (2005) incorporated notions of conscious (explicit) and unconscious (implicit) attitudes into a model of discrimination. They say that the economic models on discrimination, taste-based and statistical discrimination, are models in which individuals discriminate consciously or explicitly. Follow her, Implicit discrimination would occur when discrimination is “unintentional and outside the discriminator’s awareness” (p. 1). There are several criteria for implicit employer discrimination to arise during the task of screening:

“The task is typically performed under important time pressure, as the screeners have to make their way through a thick pile of résumés, often juggling this task with multiple other administrative loads. The task is [sic] also involves considerable ambiguity: in the search for a “good” job applicant, there is no such thing as simple formula to be followed to determine which candidates are above the “fit line”. Also, the typical task is a nonverbal automatic process consisting in placing a given résumé either on the “yes” pile or the “no” pile, with little commentary on each résumé” (p.10)

Bertrand et al. (2005) proposes some approaches to test for implicit discrimination. Probably the most important approach is the implicit association test (IAT) developed by Greenwald, McGhee, and Schwartz (1998). She says that the purpose of using an IAT test would then be to perform correlations between the results on the IAT and the employer’s behavior found with a correspondence test. In this master thesis, we restrict ourselves to a simple correspondence test but future research could combine correspondence testing with an IAT test. Rooth (2010) tried to relate employers’ behavior from a correspondence study in Sweden (focusing on Arab-Muslim versus Christian) to recruiter-level measures of implicit discrimination they collected later. Unfortunately, they were only able to interview 26 percent

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8 See Bertrand & Duflo (2016) for an explicit explanation of the IAT test, its criticisms and use in economics.
of the recruiters they were targeting. But among those they interviewed, they found a correlation between implicit distaste and the tendency to not reply on an application sent by Arab-Muslim name on it.

Beneath we explain 2 important theories on discrimination from the social psychology literature. These theories are (1) the Social identity theory (Tajfel & Turner, 1979), the (2) BIAS map (Cuddy et al., 2007).

The (1) social identity theory was developed by Tajfel and Turner (1979) and its main idea is that people infer at a certain extent their self-esteem from social groups to which they belong and also from the status of those social groups. Social groups from which an individual is a member are called “ingroups” and social groups from which that same individual is not a member are called “outgroups”. Follow Tajfel & Turner, an individual’s motivation to improve self-esteem would make that an individual highlights the positive traits of their ingroups and denigrate outgroups. In older work Tajfel, Billig, Bundy, and Flament (1971) showed that people respond more positively to people from an ingroup than they do to people from outgroups. Furthermore, people seem to have stronger and more negative stereotypes about outgroups than about ingroups (Schneider, 2005). When it comes to favoring people, people will rather favor people from their ingroup than from outgroups. This phenomenon is called ingroup favoritism (Tajfel et al., 1971) and evidence for ingroup favoritism was found for many types of social groups, different contexts and different cultures (Stangor, Jhangiani, & Hammond, 2014). However, Stangor et al. (2014) say that it is possible that ingroup favoritism does not happen in case the ingroup member is inferior to the outgroup member on an important characteristic. In this master thesis, we identify the Walloon employer’s ingroup as the Walloons and the Flemish people as his outgroup. However, the Walloon employer is also member of the Belgians from which Walloons and Flemish are both part of. The Walloon institute of evaluation and statistics “IWEPS” (2014) reported that in 2013, 66% of the Walloons find themselves different from the Flemish while in 2007 this percentage was only at 42%. This would mean that Walloons perceive themselves increasingly different from Flemish and we would tend to say that Walloons would clearly see Flemish people as an outgroup.

Another theory that can shed light on discrimination is the (1) BIAS map as presented by Cuddy, Glick, and Fiske (2007). The word BIAS stands for Behavior of Intergroup Affect and Stereotypes. The theory is a theoretical framework to understand how stereotypes and emotions affect individual behavior. Stereotypes and emotions in the framework are not personal but are stereotypes and emotions on groups. Beneath we give a short summary of the main mechanisms behind the BIAS map explained in Cuddy et al. (2007).

The BIAS map in Figure 2.1. shows that an individual can have stereotypes on people’s competences (X-axis) and their warmth (Y-axis) and 4 different emotions (affect): pity, admiration, contempt, and envy. Each emotion can be find in one of the corners of figure 2.1. and pointed with a grey arrow. The possible behaviors of an individual can be passive and active. Passive behavior is behavior with less directed effort towards the other group while a clear directed effort is active behavior. Each behavior, passive or active, can rather do harm (to harm someone) or rather create facilitation (to benefit someone). Thus, there are actually 4 possible behaviors: active facilitation, active harm, passive facilitation and passive harm.
Each of these 4 behavior is found at one of the sides in the BIAS map and pointed by a black arrow. To illustrate how the BIAS map functions, we give an example on an employer and an applying job candidate.

**Figure 3.1 Schematic representation of behaviors of intergroup affect and stereotypes**

![Bias Map Diagram]

Source: Retrieved from Cuddy et al. (2007)

When we look only to *competence* (X-axis) making temporarily abstraction of *warmth*, we see that when a job candidate from a group stereotyped as competent (high competence), the employer would passively facilitate that candidate. While a candidate from a group that is negatively stereotyped on competence (low competence) the employer would be passively harm that candidate. We look again to our example but add the stereotype on warmth. The same candidate that was stereotyped as very competent in our example above can be stereotyped as very “warm” and not very “warm” In case he is stereotyped as warm, the employer would passively and actively facilitate that job candidate. In case he is stereotyped as not very “warm”, the employer would facilitate passively but also harm him actively. Follow the Bias map stereotypes on warmth and competence of other groups can also influence people’s emotions towards groups. But the other way around is also possible.

It is certain that employer’s priority is hiring competent workers instead of “warm” people, but it is not sure at what extent employers do not really take account with workers’ “warmth”. In fact, there are reasons to believe economic agents are not completely “rational”. For example, a job candidate’s group is stereotyped as very competent but also as very arrogant. Another candidate is stereotyped as competent but also stereotyped as more friendly than the first candidate. What is the choice of the employer? Which employer wants to work with the arrogant stereotyped candidate? In part 1, we saw that Walloons see themselves as more social than the Flemish people. Follow the BIAS map, a Walloon employer would take account with stereotypes on warmth and competence.

Stereotypes on group’s competences in the BIAS map are thus like stereotypes on average group productivity from the statistical discrimination model (see 3.2.2). However, the BIAS
map takes account with an additional dimension of stereotypes: “warmth”. “Warmth” is neglected in a statistical discrimination model because of the assumption of a profit-maximizing employer.

The mechanisms of taste-based discrimination model (Becker, 1957) (see 3.2) can also be found in the BIAS map. Prejudices such as negative and positive feelings towards a group, which are at the core of the taste-based discrimination model, are represented by 4 emotions in the BIAS map: contempt, envy, admiration, and pity. All these 4 emotions can influence the perception (stereotypes) people have about other groups.

What we learned from the BIAS map is that stereotypes and emotions (linked to prejudices) are not separated concepts but are interrelated. Furthermore, the BIAS map takes account with group stereotypes on warmth and competence while statistical discrimination takes only account with stereotypes of people’s average productivity.

3.2.4 Measure of hiring discrimination

In this section, we present the limitations and advantages of the correspondence test, the methodology we used to measure hiring discrimination in the Walloon labor market. Correspondence studies make part of the so called “field experiments”.

Field experiments were developed to address core limitations of the regression approach (statistical analysis) method (Bertrand & Duflo, 2016). Field experiments combine experimental methods with field-based research. They apply certain key experimental principles (matching and random assignment) and apply them to real contexts to measure outcomes. While a laboratory experiment might ask subjects to rate hypothetical job applicants, a field experiment would present two equally qualified job applicants to real employers in the context of advertised vacancies. Furthermore the biggest advantage of field experiments compared to laboratory experiments is that the circumstances of the research are less artificial and behaviors of people will therefore be more natural (McGinnity, Nelson, Lunn, & Quinn, 2009).

Field experiments consists out of two types of experiments: audit tests and correspondence studies. Audit studies or in-person-audits involve the use of matched pairs of individuals (called testers or auditors) who apply as job candidate for vacancies. Real applicants are carefully matched based on employment-relevant characteristics to which employers may respond in making hiring decisions. Furthermore, their resumes are constructed in a way that each applicant has equal levels of schooling and work experience. Audit studies allow to test in all stages of the job seeking process (Bursell, 2007). However, audit studies have disadvantages. The method is expensive, time-consuming and require intensive supervision (Pager, 2007). Furthermore, it is unlikely to erase the numerous differences that exist between the pair of auditors. Labor economists as Heckman and Siegelman (1993) argue that it is impossible to have candidates’ aspects perfectly equal in all employment-relevant characteristics. Furthermore the auditors know the purpose of the study and this can generate conscious or subconscious motives among the individuals to generate “data” consistent or inconsistent with their beliefs about the grounds of discrimination (Bertrand & Duflo, 2016).

Correspondence studies have been developed to address some of the more obvious weaknesses of the audit method. Rather than relying on real testers or auditors that physically
meet with a potential employer, correspondence studies rely on fictitious applicants. Discrimination is estimated by comparing the outcomes for these applicants, one with and the other without the perceived minority trait. The most common way to manipulate the perceived minority trait has been through the names of the applicants (e.g., African–American names) (Bertrand & Duflo, 2016). Follow Bertrand and Duflo (2016) there are several advantages over the audit method. First, the correspondence test relies on résumés or applications of fictitious people and not real people. Therefore, one can be sure to generate strict comparability across groups. It guarantees that any observed differences are caused solely by the different trait between both fictitious job candidates. A second advantage is that correspondence tests have a relatively low marginal cost which enables the researcher to send out many applications. However, the correspondence studies have also limitations. Not as audit studies, correspondence tests focus only on the first stage of the hiring process, i.e. whether the testers are invited for a job interview or not. Discrimination can also happen at the hiring stage when the job is offered. One can believe that the stage of “whether invited or not to a job interview” represents only a small part of the hiring process. However, studies have shown that discrimination at first stage of the hiring process is a very good predictor of full hiring discrimination (Pager, 2007; Riach & Rich, 2002).

Audit studies and correspondence studies share also some additional limitations. Both can only inform about the average differences in hiring behavior between candidates (Bertrand & Duflo, 2016). Furthermore, both studies raise also ethical concerns. A first reason is that employers’ time is bound to be a scarce resource, and researchers who carry out these studies are using it without the involved parties’ consent. However, measuring discrimination with field experiments can also be justified. Some justifications are given by McGinnity (2009). A first one is that direct evidence of labor market discrimination is not available by any other technique. Second, field experiments have a well-established research design applied in many other countries. A third one is that minimal inconvenience is caused to employers. Next, there is considerably greater harm done by hiring discrimination. Fifth, no information is published related to an individual firm, organization, or person. Sixth, the outcome of this study will have no direct consequences for any of the participants.

We conclude that despite some drawbacks of the correspondence studies, they show the most advantages. Furthermore, correspondence tests give unbiased data which enables to identify the effect of the job candidate’s cultural belonging (Flanders or Wallonia) on hiring discrimination in the Walloon labor market.

3.2.5 General conclusion
Based on our institutional context and literature review we can now formulate a hypothesis to our general question. This hypothesis is: “the Flemish job candidate compared to his Walloon counterpart is not discriminated in the Walloon labor market”. We expect no discrimination of the Flemish candidate for several reasons. First, general negative prejudices against Flemish people seem to be inexistent in Wallonia. Second, there are no significant differences in terms of cultural attitudes toward work between Flemish and Walloons. Furthermore, Walloons perceive the Flemish as more diligent than themselves. In that respect, the statistical discrimination model that takes account with stereotypes on average group productivity would predict that in case of imperfect information a profit maximizing
employer would even prefer the Flemish candidate upon the Walloon candidate. However, follow the social identity theory (Tajfel & Turner, 1979) and social categorization and intergroup behavior (Tajfel et al., 1971) Walloons would choose for a candidate of their own group because of the in-group bias. The hypothesis to our sub question is: “culture is an explanatory factor of our results”. In the next section, we explain thoroughly the set-up of our correspondence test that enabled to collect data on discrimination of the Flemish job candidate in the Walloon labor market.
4 Correspondence test

The correspondence test is a methodology that addresses the best several issues involved in the measure of labor market discrimination (see 2.2.4.). Correspondence tests combine experimental methods with research on the field (cf. supra). The most important advantage of correspondence test is that the profile of the candidates can be held strictly equal apart from one characteristic. In our correspondence test the profiles of the fictitious candidates differed only for one characteristic: culture. Culture in the context of this study test means either the belonging to Flanders or Wallonia (see 1.1.).

Furthermore, a correspondence is easy to set up, the data is easy to use and permits us to handle the experiment ourselves. Follow Riach & Rich (2002), it is a sound academic practice to publish full details of any field experiment. For this reason, an exhaustive description of this correspondence test will be explained in this part.

The outline of this part is structured as follow: in section 3.1. we explain which part of the population was used to construct the profiles of the two fictitious candidates and explain in detail the choice for their names, places of living of the Walloon and Flemish candidate and their schooling profile. In section 3.2. we explain that for several reasons all the several living places of the Walloon and Flemish candidate were matched one by one with a workplace in Wallonia. In section 3.3., we report where we found the vacancies we applied for and how these vacancies were selected. Each sent application contained a cover letter and a CV constructed specially for this study. Section 3.4. details the construction of these CVs and cover letters. In section 3.5., we explain how the application process was done. Once an application was sent, the employer could reply positively, negatively, ask the candidate for more information, promise to callback later or not reply at all. This employer’s callback information, detailed in section 3.6., was registered in a database and to be used later in calculating discrimination. We finish part 3 with a discussion on our correspondence test and conclude briefly.

4.1 The population of interest

In this correspondence test, we chose to focus on young low-educated school leavers with a degree of vocational education in sales. At the beginning of the correspondence study they were aged 18 years old. They are male and come from Flanders and Wallonia but not from Brussels because we cannot define the culture of Brussels’ people as typical Flemish or Walloon (see .1.1.).

4.1.1 Names and places of living

In correspondence studies the minority trait such as ethnicity, national background, race and foreignness are signalled by the applicant’s name (McGinnity et al., 2009; Riach & Rich, 2002).

<table>
<thead>
<tr>
<th>Frame 4.1.: The geographical dissemination of last names in Belgium</th>
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<tbody>
<tr>
<td>The geographic dissemination of family names was checked on the website, <a href="http://www.fabriek.be">www.fabriek.be</a>. Its data is based on registrations from 1998. Lombaerts is a common name in Flanders and spread out over whole of Flanders. The same is the case for Boussart in Wallonia. However, Lombaerts and Boussart also exist at the other side of the language border but are a lot less numerous.</td>
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</table>
Since our correspondence test aims to test for the treatment of Flemings vs. Walloons in the Walloon labor market, we want one candidate with a typical Flemish name and the other with a typical Walloon name.

We made a list of potential Flemish and Walloon names and first names. People from both Flanders and Wallonia were asked at which level they perceived these names and first names as typically Walloon and Flemish. The last names were checked on their geographical dissemination (see frame 4.1.). Thomas Boussart was chosen as a typical Walloon name and Pieter Lombaerts was chosen as a typical Flemish name. In an influential paper on ethnic discrimination (Bertrand & Mullainathan, 2004) the authors argue that race-specific names might also proxy for social class above and beyond the race of the applicant. Thomas Boussart and Pieter Lombaerts are neutral names and do not proxy for different social classes but only for the cultural identity: the Walloon and Flemish identity.

4.1.2 Schooling profile
Our population of interest holds a degree in vocational education in sales. At the beginning of our correspondence test, applicants were aged 18 years old and did not have any professional experience before apart from student work. The fact that they turned 18 years old in the year of their graduation in secondary school means they never doubled during secondary schooling. We note that 53% (reference please) and x % in vocational education doubled in vocational education. Even if they are low-skilled, they have a high ability since they did not double. Candidates have a sales profile since most jobs in the labor market are commercial jobs which make it easier to find vacancies. Furthermore, we chose for low-educated candidates because in comparison with higher educated profiles, profiles for low-educated school leavers are easy to match. Furthermore, Flemish and Walloon secondary schools are easier to match than Flemish and Walloon universities. However, the level of content of sales secondary education in Flanders and Wallonia needed to be chosen carefully since Flanders and Wallonia have different institutions for education (see frame 3.2.). We investigated the level and content of sales education in the Flemish community and the French-speaking community. An in-depth analysis was made of all the studies of commerce present in both education systems. From that study, we found that for both Communities vocational secondary education with a specialization in sales was the most similar study between both communities (See Annex 6).
Each fictitious candidate went to school in the place where he was born and raised. Since in

**Frame 4.2.: The choice for catholic secondary schools offering vocational education in sales and general secondary education.**

The aim of the choice of a secondary school offering vocational education in sales is that the candidate’s secondary school are ought not to influence the hiring decision of the employer. We searched therefore to similar Flemish and Walloon secondary schools, offering vocational education in sales.

In Belgium, different types of secondary schools exist: public schools and catholic schools. These types of secondary schools can offer different sorts of education: vocational education, technical education and general education. Not all types of secondary schools have the same reputation nor offer the same careers and sorts of education. For example, secondary schools offering vocational education do not always offer only vocational education. Furthermore, vocational education can be offered by an a catholic school or public school. It is therefore important we investigate which similar Walloon and Flemish secondary schools exist in terms of reputation, quality, studies and sorts of education.

Flemish and Walloon catholic schools are believed to have more similar traits than Flemish and Walloon public schools. Bearing that in mind we made lists of the different secondary schools for the different residences in Wallonia and Flanders. A list for each different living place contained:

1. the nearest secondary school offering the study of *commerce* in *vocational* education.
2. the nearest *catholic* secondary school offering the study of *commerce* in *vocational* education.
3. the nearest secondary school offering the study of *commerce* in *vocational* education and studies in *general secondary education*.
4. the nearest *catholic* secondary school offering the study of *commerce* in *vocational* education and studies in *general secondary education*.

Furthermore, we contacted regional primary schools located in the Walloon living places to ask where most children went to secondary school after primary school to get a view on the reputation of different secondary schools to avoid them.

Taking into account reputation, quality of education, studies and sorts of education, we chose for the closest secondary schools offering the study of commerce in vocational education and studies in general secondary education.

our correspondence study different living places exist for Walloons and Flemings, we matched all the Walloon and Flemish living places one by one with the closest catholic secondary school offering vocational education in sales and general secondary education. The reason for the choice of catholic secondary schools offering vocational education in sales and general secondary education is explained in frame 4.4.
4.2 Geographical matching of living places with Walloon workplaces

It was important that Flemish and Walloon candidates came from places close to each other to make them apply for the same job without one candidate would be unequally treated because one of the candidates would live too far. Each of the 32 workplaces was therefore matched on a similar distance with a living place in Flanders and Wallonia (see Annex 4). We illustrate this in Figure 4.1 for workplaces in the Province of Hainaut⁹.

Frame 4.3.: The Dutch-French Language border and language facilities in Belgium

In 1963, the Belgian state created by law officially a language border between the French-speaking Wallonia and Dutch-speaking Flanders. The official language border became therefore a domestic administrative border and made it virtually unchangeable. The linguistic homogeneity of the language groups and regions was officially settled. Before this implementation, there was already a clear natural language border except from some bilingual municipalities. Therefore laws, promulgated in 1963, obliged these bilingual municipalities that provisions for linguistic minority were to be made. These provisions would enable the linguistic minority to communicate in its own language with communal authorities and to obtain limited possibilities for instruction in its own language. However since 1963, there has been a strong “monolinguisation” of those municipalities (Willemyns, 2002) but these implemented language facilities are until today still present.

For these reasons, we could not consider municipalities with language facilities to be determined as workplace or living place in our research zone since it would be difficult to distinguish between the Flemish and Walloon background of the municipality.

⁹ The map for the province of Liège, the rest of the research zone can be found in annexes
Figure 4.1 Flemish and Walloon residences matched with Walloon workplaces in the Province of Hainaut, Belgium.

Note: The table in figure 1 illustrates the nine different workplaces in the province of Hainaut matched with the applicant’s residences in Flanders and Wallonia. The lines on the biggest map illustrate the fastest commuter routes between residences and workplaces. For example, for a job offered in the workplace Celles (3), the Flemish applicant comes from Avelgem (3) and the Walloon applicant from Tournai (3).
Figure 4.1 shows 9 different workplaces in the Province of Hainaut\(^{10}\) matched with the different living places of the Walloon and Flemish fictitious applicant. The colored lines connecting the living places with a workplace represent the routes by car between the residence and workplace. Every workplace, represented by a triangle, is matched with a Walloon and Flemish living place, and interconnected by a line with a number. For example, in case they apply for a job offered in the workplace Celles (3), the Flemish applicant comes from Avelgem (3) and the Walloon applicant from Tournai (3). A summary of these matches is shown in the table below the map. The wavy dotted line that horizontally crosses the map is the language border between Flanders and Wallonia.

<table>
<thead>
<tr>
<th>Frame 4.4.: Criteria for matching of Flemish and Walloon living places and workplaces</th>
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<tbody>
<tr>
<td>Residences for Flemish and Walloon candidates were determined with respect to the workplaces. The shortest distance and travel time between residence and workplace were taken in account. A residence and workplace was matched when the distance and travel time were approximately equal for both candidates.</td>
</tr>
<tr>
<td>Because municipalities with language facilities cannot be said “pure” Flemish or “pure” Walloon, these municipalities were therefore not considered as residence.</td>
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4.3 The vacancy data collection
Vacancies we applied for came from Walloon companies spread over those 32 municipalities (see Annex 4) spread over northern Hainaut and Liège. Vacancies for those municipalities were selected follow several criteria on the job website of the Walloon public employment service (PES) FOREM. Beneath we explain the advantages of FOREM and the different criteria we used for the selection of vacancies.

4.3.1 Recruitment channel
To apply for jobs in Wallonia, we searched vacancies on the website of “FOREM”, the Walloon Public Employment Service. Their website brings together a major part of the Walloon labor demand and supply. The advantage of the FOREM website is that vacancies are complete and presented in a uniform way (see Annex 5). By this way, information for several job characteristics could be gathered. It would enable us afterwards to check for heterogeneity of the unequal treatment by several job characteristics. Another advantage is that FOREM allows job seekers to create an account on to search jobs follow several criteria: job category, sector and workplace. However, searching vacancies by job category or sector by workplace seemed not productive because not all jobs we were looking for were listed. Consequently, we screened all vacancies by workplace.

4.3.2 Vacancies
All the vacancies were selected follow several criteria. Vacancies that not met the criteria were ignored. A first criterion was the workplace of the job. The workplace of the job needed to figure among the 32 workplaces (see part of the research zone. When, for example, a job was searched in “Celles”, the Walloon applicant came from Tournai and the Flemish applicant from Avelgem (3) and the Walloon applicant from Tournai (3). A summary of these matches is shown in the table below the map. The wavy dotted line that horizontally crosses the map is the language border between Flanders and Wallonia.

\(^{10}\) See Annex 3 for a figure of the different workplaces in the province of Liège matched with the living places of the Walloon and Flemish candidate.
Avelgem. This is equally highlighted by line 3 in Figure 4.1. (cf. supra). A second criterion was the education and degree. We selected vacancies that required a vocational education degree with specialization in sales but also selected all the vacancies that required a degree in vocational education but without specific specialization. All the vacancies that required any degree were also taken in account. Another selection criterion was the publication date of the vacancy. Vacancies on the FOREM present for more than 20 days after publication date were not considered for selection. This rule was used to avoid vacancies that, for an unknown reason, would figure for too many time on the FOREM website. A next selection criterion was language. Although the fictitious applicants are bilingual, vacancies requiring a fluent French-speaking or fluent Dutch-speaking worker were not considered. We ignored these vacancies because one could believe that employers would prefer a Walloon candidate (Flemish candidate) over a Flemish candidate (Walloon candidate) because the vacancy was looking for a fluent French-speaking (Dutch-speaking) worker, the mother tongue of the Walloon candidate (Flemish candidate). Work experience was another selection criterion. Only vacancies requiring maximum 2 years of experience were considered. Vacancies were ignored when the field of experience had nothing to do with applicants’ profiles. Another criterion was that fictitious applicants could not apply twice for the same company. Vacancies were equally rejected when applicants were recommended to apply only by telephone or to apply directly in person at the company. Finally, vacancies with special employment requirements were neither considered.

The precedent vacancy criteria were chosen to avoid vacancies that would lead to heterogeneity of applicants for other reasons than their belonging to Flanders or Wallonia.

4.4 CVs and cover letters
When a vacancy was selected, both candidates sent an application by email to the corresponding employer for a vacancy. These applications consisted of a cover letter and CV. However, candidates did not send CVs and cover letters with the same lay-out. To avoid employers’ mistrust, our correspondence test had two different templates for CVs and cover letters: template “A” and template “B” which are illustrated in Figure 4.3. When Thomas Boussart, the Walloon applicant would apply with a CV and cover letter of template A (B), Pieter Lombaerts, the Flemish applicant would apply with a CV and cover letter of template B(A). Therefore, each living place of the candidate counted 2 CVs: a CV template A and a CV template B. In this section, we explain the similar and different items on CVs and cover letters. Differences exist between CVs of the Walloon and Flemish candidate and between CVs and motivations letters of template A and B. Templates A and B are independent of the candidates.

4.4.1 Similar items on the CVs
Most of the similar items on CVs such as the secondary school degree, driving license, student job, ICT-skills and language competences were aimed to signal equal competences and professional experience. We present all the similar items\(^\text{11}\) in Figure 4.2 between the CV template A of the Walloon candidate and the CV template A of the Flemish candidate.\(^\text{12}\)

\(^{11}\)In figure 3.1., similar items are denoted with an S followed by a number
The first similar items in the beginning of their CVs were their (S1) Belgian nationality and (S2) birth year. Both CVs mentioned that applicants were born in the beginning of the year 1996. However, a little difference existed between their birthdays to avoid employer’s mistrust. The candidates had both (S3) B driving license which was a major advantage during the application process since many vacancies required a B driving license. Both candidates had also the same (S4) professional experience in form of a student job which they did twice 1 month. Another similar item was their (S5) vocational secondary school degree with a specialization in sales. Both candidates had also the same (S6) ICT-Skills: they managed both Microsoft Word, Office and PowerPoint. Depending on the CV-type, these skills were much or less specified. Another similarity was the (S7) linguistic competence. Candidates showed the same abilities in French and Dutch in their CV which was important to avoid any differential treatment in terms of language. Both applicants practiced also a similar (S8) hobby. All these similar items are the same between CV template B of the Walloon candidate and the CV template A of the Flemish candidate.
Figure 4.2 CV templates A and B of the Walloon candidate, Thomas Boussart and the Flemish candidate, Pieter Lombaerts

Note: The general similarities (S) and differences (D) between candidates’ CVs are illustrated between the CV template A of Thomas Boussart and the CV template A of Pieter Lombaerts and denoted respectively. The general differences (T) between CV templates A and B are illustrated between CV template A and B of Thomas Boussart.

(Source: Author’s compilation based on authors data)
4.4.2 Different items on CVs

The different items between CVs of both applicants are aimed at emphasizing the candidates’ belonging to a different group: Flanders or Wallonia. In case the Flemish (Walloon) candidate would be treated differently by employers, this treatment would then be attributed to their belonging to Flanders (Wallonia). Apart from differences between CVs of the Walloon and Flemish candidate, we explain at the end of this section also differences between the CV templates A and B which are differences independent from both candidates.

We show on Figure 4.2 the different items\textsuperscript{13} between CVs of the Flemish and Walloon candidate. These differences are independent of the templates A and B. A first important difference is their (D1) \textit{last and first name of the applicant}. The Flemish applicant’s first and last name is Pieter Lombaerts and the Walloon applicant’s name is Thomas Boussart (cf. supra). A second difference was their (D2) \textit{place of birth and (D3) residence}. Their address in the CV indicated their residence. The Walloon had a residence in Wallonia and the Flemish in Flanders. We chose as birthplace the closest city with hospital to the candidate’s residence. The place of birth and residence could both signal in an explicit way that the applicant was born and grown up in Flanders or Wallonia. A last different item between candidates was related to the similar student job they did twice one month. Both candidates did this (D4) student job in their own region which could signal they had acquired preliminary professional experience in their own region. Another difference was the(D5) name and place of their \textit{secondary school}. The secondary school’s place could signal that the applicant was educated in the region of his birthplace and thus in his mother tongue. Each different residence of the applicants was matched with an appropriate secondary school follow several criteria (see 4.1.2).

Other different items between CVs were the (D6) \textit{cell phone number} and (D7) \textit{email address} and were just practical differences. The Flemish applicant had an outlook email account; pieterlombaerts@outlook.com, and the Walloon applicant had a Hotmail email account; thomasboussart@hotmail.com. These email-addresses were made especially for this field experiment to enable job application by email. Employers could also call back on their cell phone. Each cell phone number was linked to a real cell phone that was managed by a research member of our team. Both cell-phones were switched off to make employers leave a voice mail. The Flemish applicant got a voicemail responder recorded by a native Dutch speaker and by a native French-speaker for the Walloon. Their cell phones were only switched on to check if employers had left any voicemail.

Apart from differences between CVs of the Walloon and Flemish candidate there are also \textit{differences between CV templates A and B} which are independent from both candidates. Templates A and B were alternated during the sending process among both candidates and aimed to avoid employer’s mistrust for similar CV templates. We illustrate in Figure 4.2 the differences\textsuperscript{14} between CV templates A and B with the CV templates A and B of Thomas Boussart, the Walloon applicant. These differences are exactly the same for CV templates A and B of Pieter Lombaerts, the Flemish applicant. A first important difference was the (T1) lay-

\textsuperscript{13} The different items between CVs of the Walloon and Flemish applicant are denoted with a capital letter “D” followed by a number.

\textsuperscript{14} The differences between CV templates A and B are denoted with a capital letter “T” followed by a number.
out and information structure of the templates. Template B is more formal than template A since it has lines and is more structured. Also, the order of information in the CV templates is structured differently. For example, template A begins with the nationality while template B starts with the candidate’s address. Another difference is related with the (T2) student job. CV template A mentioned as student job “cashier and window dresser in the Delhaize supermarket “and CV template B mentioned always “seller in bakery”. A last difference was the (T3) hobby of the candidate, template “A” mentioned Football and template “B” Basketball.

In conclusion, the different items between CVs of the Flemish and Walloon candidate were purposed to signal the candidate’s belonging to respectively Flanders and Wallonia. CV templates A and B were independent of any candidate and were only purposed that employers would not discover the field experiment.

4.4.3 Cover letters
Each candidate’s application was sent by email and contained each time a cover letter written directly into the email itself. A cover letter of template A (B) was always send with a CV of template A (B). Cover letters were standard and only required small modifications to fit each specific application. These modifications, introduced by a researcher into the email, were the same for cover template A and B and consisted out of the name of the recruiter and job name. To have these cover letters appear as written by a low-educated school leaver, their content and style were kept intentionally simple.

Both templates were held as equal as possible to avoid that employers would treat applicants differently because of their cover letter. We illustrate the implicit similarities in on the cover letters of template A and B by hand of Figure 4.3. Both templates mentioned (S1) a similar greeting in the beginning, (S2) a similar mention of the job for which the applicant applies, (S3) applicant’s degree in vocational secondary education with specialization in sales, the (S4) applicant’s work experience as job student, a (S5) reference to a job interview and (S6) a greeting at the end of the cover letter.

However, each cover letter template had its explicit particularities in writing style and content to avoid that employers would mistrust the similar content of these templates. The particularities of template A in terms of writing style shown in Figure 4.3 are (A1), (A2), (A3) and (A4) and in comparison with template B, are parts of sentences characterized by a less formal writing style (A3) mentions in a direct way the applicants motivation and (A4) mentions explicitly that the applicant awaits to hear from the recruiter. The particularities of template B in Figure 4.3 in terms of writing style are denoted with B1, B4, B5, B6 and B7 and are characterized by a more formal writing style and more precision in comparison with template A. The particularities of template B in terms of content are extra information on (B2) the graduation year and level of secondary education, (B3) the student job and (B4) that his CV can be found in the attached file in the email.

In conclusion, templates A and B of the cover letters had similar items but also each its particularities in terms of writing style and content to avoid that employers would mistrust resembling cover letters.
Figure 4.3 The similar items and particularities on the cover letters of template A and B

(Source: Author’s compilation with author’s data)

Note: The similar items on the cover letters are denoted with a capital letter “S” followed by a number while the particularities of the cover letter template in terms of writing style and content are denoted with capital letter A

4.5 Sending out applications

We sent applications via email with the candidates’ email addresses follow a certain process. That process was used to avoid that the correspondence test would be revealed by employers. We sent the first applications on Tuesday 2 December 2014 and the last one on Tuesday 8 December 2015. The procedure for this field experiment consisted out of responding to selected vacancies found on www.forem.be, the website of the Walloon public employment service (cf. supra). Overall, both applicants applied each for 285 job offers which is 570 CVs and cover letters together.

For each new job vacancy, both applicants sent an application to the employer by email. The email consisted always of a cover letter and a CV. Before starting the sending process, we needed to decide which applicant among both should apply first. On the one hand, Riach and Rich (2002) wrote that a number of researchers prefer the minority group candidate to apply first instead of the majority worker. However, we are not of that point of view. We believe rather that this method undermines the validity of the correspondence test because an
applicant would have a much higher probability of getting positive callback when he applies first (De Weerdt, Fontenau et al. (2009). Furthermore, we believe that many companies probably employ the principle of “first-come first-served”. To avoid this problem, we chose to alternate the first application between the Walloon and Flemish applicant after each 2 vacancies as shown in Table 4.1.

We illustrate the sending process by hand of Table 4.1 In case of the first vacancy (1), the Walloon candidate sent the first application on “Day T”. The Walloon’s application consisted of a cover letter and CV of template A. The second application for that same vacancy (1), is sent by the Flemish candidate on “Day T + 1”. The Flemish’ application consisted of a cover letter and CV of template “B”. For the second vacancy (2), the Walloon applicant sent again the first application on “Day T” (same or other day than the first application). But now the Walloon applicant sent a cover letter and CV of template “B”. For that same vacancy (2), the Flemish applicant sent again the second application on “Day T+1” but now with a cover letter and CV of template “A”. For the third vacancy (3), the first application, sent on “Day T”, is not anymore sent by the Walloon applicant but by the Flemish applicant. The Flemish applicant sent a cover letter and CV of template “A”. For that same vacancy (3) the Walloon is the second applicant and sends a cover letter and CV of template “B” Globally, the templates “A” and “B” alternated between the applicants for each new vacancy while the sender of the first application alternated between the applicants after each two vacancies. This procedure was repeated during the entire sending process. “Day T + 1” means that the second application is sent approximately 24 hours (1 day) later than the first application.

<table>
<thead>
<tr>
<th>Vacancy</th>
<th>First application (Day T)</th>
<th>Second application (Day T + 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Template A - Walloon candidate</td>
<td>Template B - Flemish candidate</td>
</tr>
<tr>
<td>(2)</td>
<td>Template B - Walloon candidate</td>
<td>Template A - Flemish candidate</td>
</tr>
<tr>
<td>(3)</td>
<td>Template A - Flemish candidate</td>
<td>Template B - Walloon candidate</td>
</tr>
<tr>
<td>(4)</td>
<td>Template B - Flemish candidate</td>
<td>Template A - Walloon candidate</td>
</tr>
<tr>
<td>(5)</td>
<td>Template B - Walloon candidate</td>
<td>Template A - Flemish candidate</td>
</tr>
</tbody>
</table>

(Source: Authors’ compilation)

Information about all the applications and employers’ call backs were registered in the data base. This information contains for both applicants the application date and, the content and date of the employers’ call back. Furthermore, information about the job from each vacancy was also registered in the data base. We registered information on the date of the vacancy; the last modification date of the vacancy; the name of the company; the address of the workplace; information on temporary employment, part-time employment, and interim job; required language competences; customer contact; teamwork; the recruiter’s name; the recruiter’s gender. We made a print screen of each vacancy for which we had applied. These print screens made it possible to extract additional job information in case these vacancies would have been deleted from the PES database.
 Callback measure

Once an application was sent, the employer could reply positively, negatively, ask the candidate for more information, promise to callback later or not reply at all. This callback information would deliver the main information to calculate discrimination in the Walloon labor market. All callback information was carefully registered into our database.

Employers could reply on applications by email or telephone. For each candidate, we registered the entire content of their call back, the call back date, their communication tool (email or voicemail) and a code for the type of content of their call back. Table 4.3. shows 5 codes we used to register different types of callback. Code “1” was registered when the candidate was invited to a job interview. Code “2” was registered when the employer did not invite the applicant but replied with another positive reaction. When the employer promised to call back later, we registered a code “3”. After some time, code “3” was modified into one of the other codes. We registered a code “4” when employers sent a negative reaction. When an employer did not reply, we registered a code “0”. All employers had a time delay of 40 days to reply on the application. If an employer did not reply after 40 days, we encoded a “0”.

Table 4.3.: Summary possible codes for call backs of employers

<table>
<thead>
<tr>
<th>Code</th>
<th>Content of the Call-back</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No reaction</td>
</tr>
<tr>
<td>1</td>
<td>Invitation to a job interview</td>
</tr>
<tr>
<td>2</td>
<td>Other positive call back</td>
</tr>
<tr>
<td>3</td>
<td>Promise to call back later</td>
</tr>
<tr>
<td>4</td>
<td>Negative reaction</td>
</tr>
</tbody>
</table>

(Source: Authors’ compilation)

For approximately 215 out of 285 applications, employers did not call back neither candidate. This is not something we had expected. Follow “article 9” of the collective employment agreements (Conseil national du travail, 2008)”employers are ought to inform a candidate in case he or she is not retained. From this field experiment we understood this is not the case among Walloon employers we contacted.

Since companies invest time in recruiting, it was important that employers did not have to wait on important replies of our candidates. In case an employer proposed a job interview, the candidate sent always a gently message to tell the recruiter he had already found a job. In case our applicants got a negative call back, they did not send an email back because we assumed employers would not be waiting for a reply.

Conclusion and discussion

The correspondence test that we constructed enables to collect experimental data on the discrimination of the Flemish candidate compared to his Walloon counterpart in the Walloon labor market. The profiles of both candidates, the Flemish and the Walloon, were held perfectly equal in their CVs except for one characteristic: their belonging to a group, Flanders
or Wallonia. We know therefore that the results we will discuss in the next part will entirely due to their belonging to that specific group.
5 The results

In this part, we report and explain the results we found with our correspondence test (see part 3) conducted in the Walloon labor market. We are interested to find an answer on our research question "Are Flemish discriminated in the Walloon labor market because of their belonging to Flanders?" and we explore if culture is a driver behind these results. From our literature review (see part 2) we understood that Flemish workers would probably not be discriminated. Our results confirm these predictions and we even find that the Flemish candidate receives more positive callback than his Walloon counterpart. The finding of the unequal treatment of the Walloon candidate receives more attention at the end of this part.

The outline of this part is as follows. In the first section, we give the descriptive statistics of the vacancies we applied for. In the next section, we report our results on employers’ callback for both candidates and explain how we measure discrimination and report its results. Next, we give possible causes for the low number of positive callback and present afterwards possible reasons for the unequal treatment of the Walloons candidate. We end with a brief discussion and conclusion.

5.1 Descriptive statistics on vacancies

The Flemish and Walloon candidate applied for the same. 285 vacancies which is 570 applications together. Table 5.1 shows the different variables we made out of the information from our vacancies and are purposed to give a better understanding on the vacancies candidates applied for. These different variables are: (A) Region of the company; (B) Gender of the recruiter and type of contract; (C) Characteristics of the job; (D) Distance from residence to workplace; (E) Language ability; (F) Occupation types; (G) Female dominated jobs; (H) Size firm; (I) Labor market tightness.

Following the variable (A) Region of the company, we applied for 139 vacancies from companies located in the province of Hainaut and for 146 vacancies from companies in the province of Liège. The variable (B) Gender of the recruiter and type of contract shows that women treated 52% of the applications, men 41% and recruiters whose gender was unknown 8%. A gender was unknown when we could not deduct the recruiter’s gender from the recruiter’s first name or other information in the vacancy. Furthermore, 27% of all these recruiters worked for an employment agency. We applied virtually for as much temporary (52%) as permanent contracts (48%). Vacancies mentioned also the (D) type of work.

Customer contact and teamwork are two main characteristics of the Characteristics of the job. On the one hand the variable customer contact allows us to check for customer discrimination (Becker, 1957). For 2 out of 3 jobs we applied for, the vacancy mentioned the worker would have contact with the customer. On the other hand, teamwork is a good variable to investigate employee discrimination (Becker, 1957). Only 10% of vacancies we applied for mentioned that worker would need to collaborate with other workers during the job.
The category (D) **Distance from residence to workplace** shows how far the fictitious applicants live from the different companies in terms of km and travel time and allows to check if companies treated applicants different when they lived further away from the company’s workplace. The **distance** is the fastest route in km between the residence and workplace while **travel time** shows for the same fastest route how many time in minutes a car needs to get from the residence to the workplace. In that respect, travel time accounts for routes with different maximum authorized driving speed. **Table 5.1** shows that for 67% of the jobs the distance for both applicants is less than 30 km while for 59% of the jobs travel time is less than 30 minutes. The difference between the two last percentages means that of the jobs for which both applicants live less than 30 km away from the workplace, there is 8% for which it takes more than 30 minutes to get there.

A vacancy was determined as a vacancy with **Language ability** requirements when a vacancy wanted a worker with a very good level of French or any level of Dutch or both. The variable **language ability is a component** shows that almost 1 out of 4 vacancies asked for a worker with a specific ability in languages. When looking further we see 20% asked for candidates with a very good level of French. The difference between vacancies requiring a **very good level of French or Dutch or both** (24%) and vacancies asking a **very good level of French** (20%) means that 4% of the vacancies required a candidate with only an ability in the Dutch language. The variable **Dutch is required** shows that 12% of all the vacancies required an ability in the Dutch language. Even if both fictitious applicants had equal language competences mentioned in their CV, vacancies requiring bilingual candidates were ignored (see 4.4.1 & 4.3.2).

Applicants applied for several **Occupation types**. We divided these occupations into the following **categories**: Sales; Cleaning; Manual work; Management and administration and **Other occupations**. **Sales** account for 33% of the vacancies and constitutes the biggest category. **Cleaning** is the second largest category and accounts for 23% of all the vacancies. **Cleaning** consists only out jobs of which most time was spent on cleaning. 16 % of all the occupations required intensive manual executions. These occupations were classified under **manual work**. **Management & administration** is the smallest category (7%) and are jobs for which management or administration is the main activity. When an occupation did not fit in any of the preceding categories, the occupation was classified under **other occupations** (12%). For each vacancy, we determined also whether its occupation was female-dominated. We did that by hand of a list of female-dominated jobs in Belgium published by the FPS Economy Belgium (FPS Economy Belgium, 2015). The list contains 20 occupations with a female worker share higher than 70%. In our database, one out of three jobs (33%) are female-dominated. Most of the vacancies (75%) we applied for came from small middle sized enterprises (SMEs). The rest of the vacancies (25%) came from large enterprises. The **size of the enterprise** was determined follow criteria issued by the European Commission (2015) and used by the Walloon region and.

**Labor market tightness** The Walloon PES provides us with measures for our last category: **Labor market tightness**. These measures are labor shortage and bottleneck occupations. **Labor market tightness**

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15 We calculated with Google Maps the distances and travel time from the applicant’s residences to the corresponding companies. In case the exact address of the work place was not known, we chose, as a workplace, the centre of the city where the company was located.

16 FPS Economy = Federal public service Economy, S.M.E.s, Self-employed and Energy in Belgium
shortage occur when the labor supply for a certain occupation is insufficient with respect to the labor demand for that occupation. Bottleneck occupations are those occupations for which companies face difficulties in finding candidates. These difficulties in finding candidates are not necessarily caused by labor shortages (Nicaise & Vos, 2001). We matched each vacancy in our database one-to-one with an occupation from the list of bottleneck occupations and from the list of occupations with labor shortages issued by the Walloon PES (Forem, 2015). Table 5.1 shows that 25% of the jobs we applied for are bottleneck occupation and 20% are occupations that face labor shortages.

Table 5.1 Descriptive statistics of job vacancies

<table>
<thead>
<tr>
<th>Vacancies</th>
<th>Absolute</th>
<th>Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>100%</td>
</tr>
<tr>
<td><strong>A. Region of the company</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hainaut</td>
<td>139</td>
<td>49%</td>
</tr>
<tr>
<td>Liège</td>
<td>146</td>
<td>51%</td>
</tr>
<tr>
<td><strong>B. Gender of the recruiter and type of contract</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>147</td>
<td>52%</td>
</tr>
<tr>
<td>Man</td>
<td>116</td>
<td>41%</td>
</tr>
<tr>
<td>Unknown gender</td>
<td>22</td>
<td>8%</td>
</tr>
<tr>
<td>Temporary contract</td>
<td>148</td>
<td>52%</td>
</tr>
<tr>
<td>Permanent contract</td>
<td>137</td>
<td>48%</td>
</tr>
<tr>
<td>Part-time</td>
<td>145</td>
<td>51%</td>
</tr>
<tr>
<td>Full-time</td>
<td>140</td>
<td>49%</td>
</tr>
<tr>
<td>Via interim office</td>
<td>77</td>
<td>27%</td>
</tr>
<tr>
<td><strong>C. Characteristics of the job</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With customer contact</td>
<td>186</td>
<td>65%</td>
</tr>
<tr>
<td>Without customer contact</td>
<td>99</td>
<td>35%</td>
</tr>
<tr>
<td>Teamwork</td>
<td>28</td>
<td>10%</td>
</tr>
<tr>
<td>Without teamwork</td>
<td>257</td>
<td>90%</td>
</tr>
<tr>
<td><strong>D. Distance from residence to workplace</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance for both candidates is less than 30 km</td>
<td>190</td>
<td>67%</td>
</tr>
<tr>
<td>Distance for both candidates is not less than 30 km</td>
<td>95</td>
<td>33%</td>
</tr>
<tr>
<td>Distance for both candidates is less than 30 min by car</td>
<td>168</td>
<td>59%</td>
</tr>
<tr>
<td>Distance for both candidates is not less than 30 min by car</td>
<td>117</td>
<td>41%</td>
</tr>
<tr>
<td><strong>E. Language ability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language ability is a component</td>
<td>68</td>
<td>24%</td>
</tr>
<tr>
<td>Language ability is not a component</td>
<td>217</td>
<td>76%</td>
</tr>
<tr>
<td>Very good French is required</td>
<td>57</td>
<td>20%</td>
</tr>
<tr>
<td>Very good French is not required</td>
<td>228</td>
<td>80%</td>
</tr>
<tr>
<td>Dutch is required</td>
<td>33</td>
<td>12%</td>
</tr>
<tr>
<td>Dutch is not required</td>
<td>252</td>
<td>88%</td>
</tr>
<tr>
<td><strong>F. Occupation types</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17 For a complete list of bottleneck occupations in the Walloon labor market during year 2015 see https://www.leforem.be/MungoBlobs/944/957/BR_ME_JUILLET_2016_focus%20.pdf
<table>
<thead>
<tr>
<th>Job</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning</td>
<td>66</td>
<td>23%</td>
</tr>
<tr>
<td>Management &amp; administration</td>
<td>19</td>
<td>7%</td>
</tr>
<tr>
<td>Manual work</td>
<td>45</td>
<td>16%</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>12%</td>
</tr>
<tr>
<td>Sales</td>
<td>94</td>
<td>33%</td>
</tr>
<tr>
<td>Waiter</td>
<td>26</td>
<td>9%</td>
</tr>
</tbody>
</table>

**G. Female dominated jobs**

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female dominated jobs</td>
<td>95</td>
<td>33%</td>
</tr>
<tr>
<td>Non-female dominated jobs</td>
<td>199</td>
<td>70%</td>
</tr>
</tbody>
</table>

**H. Size firm**

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME's</td>
<td>210</td>
<td>74%</td>
</tr>
<tr>
<td>Large companies</td>
<td>75</td>
<td>26%</td>
</tr>
</tbody>
</table>

**I. Labor market tightness**

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation with labor shortage</td>
<td>58</td>
<td>20%</td>
</tr>
<tr>
<td>No heavy labor shortage</td>
<td>227</td>
<td>80%</td>
</tr>
<tr>
<td>Bottleneck occupation</td>
<td>72</td>
<td>25%</td>
</tr>
<tr>
<td>Non-bottleneck occupation</td>
<td>213</td>
<td>75%</td>
</tr>
</tbody>
</table>

(Source: Author’s compilation based on author’s data)

5.2 Descriptive statistics on callback

In the previous section, we got a better understanding on the vacancies we applied for and jump now into the analysis of the employers’ reactions (callback) on candidates’ applications. First, we explain how we define positive callback and equal and unequal treatment and then give results on different types of callback (see 4.6) for each candidate.

5.2.1 Definitions

As in Baert and Verhofstadt (2013a) we distinguish between two definitions of positive callback: positive callback *sensu stricto* (strict sense) and positive callback *sensu lato* (broad sense). Under the definition of positive callback in the *strict sense*, callback was only considered as positive when the applicant received an invitation to a job interview. Under the definition of positive callback in the *broad sense*, callback was positive when the applicant got an invitation to a job interview or any other positive reaction from the employer. The positive callback *sensu stricto* is the most employed definition of positive callback and will be our bench-mark definition.

Before we head to the statistics on callback we define unequal and equal treatment of the candidates. Unequal treatment occurs when one candidate gets positive callback but not the other one. Equal treatment occurs when both candidates get positive callback. Can we consider also negative and no callback for both candidates as equal treatment? We follow Riach and Rich (2002) and ILO\(^\text{18}\) and not consider negative and no callback for both candidates as equal treatment but as a non-observation.

5.2.2 Statistics

To structure our results on candidates’ positive callback in Table 5.2 we follow Riach and Rich (2002) and divide positive callback into four possible outcomes: (i) *positive callback for neither*

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\(^{18}\) ILO=International labor organization
applicant, (ii) positive callback for both applicants, (iii) only positive callback for the Walloon applicant and (iv) only positive callback for the Flemish applicant. These 4 outcomes will be used to calculate discrimination.

Table 4.2 shows that for all 285 vacancies together under sensu stricto there are 5 vacancies for which candidates received both positive callback (ii) while there are 4 extra vacancies for which only the Flemish applicant received positive callback (iv). Under sensu lato there were 18 vacancies for which both candidates received both positive callback (ii) while there are 6 extra vacancies for which the Flemish applicant was the only one to receive positive callback (iv). There was not any vacancy under sensu stricto and lato for which the Walloon was the only one to receive positive callback.

Table 5.2 Overall sensu stricto & lato net discrimination rate and positive call-back ratio

<table>
<thead>
<tr>
<th>Applications</th>
<th>Number of vacancies</th>
<th>Positive callback for neither of both candidates (i)</th>
<th>Positive callback for both candidates (ii)</th>
<th>Positive callback for the Walloon candidate only (iii)</th>
<th>Positive callback for the Flemish candidate only (iv)</th>
<th>Net discrimination rate</th>
<th>$X^2$</th>
<th>Positive callback ratio</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensu Stricto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>276</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>-0.44**</td>
<td>4.00</td>
<td>0.56**</td>
<td>2.01</td>
</tr>
<tr>
<td>Hainaut</td>
<td>139</td>
<td>133</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>-0.5*</td>
<td>3.00</td>
<td>0.5*</td>
<td>1.74</td>
</tr>
<tr>
<td>Liège</td>
<td>146</td>
<td>143</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>-0.33</td>
<td>1.00</td>
<td>0.67</td>
<td>1.00</td>
</tr>
<tr>
<td>Sensu Lato</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>261</td>
<td>18</td>
<td>0</td>
<td>6</td>
<td>-0.25**</td>
<td>6.00</td>
<td>0.75**</td>
<td>2.47</td>
</tr>
<tr>
<td>Hainaut</td>
<td>139</td>
<td>123</td>
<td>12</td>
<td>0</td>
<td>4</td>
<td>-0.25**</td>
<td>4.00</td>
<td>0.75**</td>
<td>2.02</td>
</tr>
<tr>
<td>Liège</td>
<td>146</td>
<td>138</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>-0.25</td>
<td>2.00</td>
<td>0.75</td>
<td>1.42</td>
</tr>
</tbody>
</table>

(Source: Author’s calculations based on author’s data)

In an equivalent field experiment with a Flemish and Walloon candidate conducted in the Flemish labor market (Vandevoorde & Van de Walle, 2015b), authors found that in 50 (86) out of 256 vacancies at least one candidate received sensu stricto (lato) positive callback. Compared to these results, the amount of positive callback from our experiment is very low. Furthermore, their results show that for 6 (11) out of 256 vacancies, the Walloon applicant was the only one to receive sensu stricto (lato) positive callback.

The absence of observations for positive callback for the Walloon candidate only (iii) together with the general low number of positive callbacks for both candidates, are important outcomes that will be discussed later.

5.3 Measure of discrimination

We use the results on callback presented in Table 5.2 of the previous section to calculate discrimination in the Walloon labor market by hand of two discrimination measures: the net discrimination rate and the positive call-back ratio. Both discrimination measures need to
deliver a better understanding on how the Flemish applicant is treated in the Walloon labor market compared to the Walloon candidate. At the end of this section we present a thorough analysis on the heterogeneity of discrimination by several job characteristics and conclude briefly.

5.3.1 The net discrimination rate
In line with Baert & Verhofstadt (2013b) we follow again Riach and Rich (2002) and build on two measures of discrimination: the *net discrimination rate* and the *positive callback ratio* (see 5.3.2.)

\[
\text{Net Discrimination rate} = \frac{\text{Net discrimination}}{\text{Number of vacancies for which at least one applicant received an invitation}}
\]

\[
\text{Net Discrimination} = \frac{\text{Number of vacancies for which only Walloon candidate got positive callback}}{\text{Number of vacancies for which only Flemish candidate got positive callback}}
\]

The net discrimination rate in this correspondence test measures the recruiter’s discriminatory behaviour towards the Flemish applicant. It is calculated by reducing (iii) *number of applications for which the Walloon was preferred* by the (iv) *number of vacancies for which the Flemish was preferred* and this difference, which is called the net discrimination, is then divided by the number of vacancies for which at least one applicant received an invitation. The *net discrimination* is the difference between the (iii) *positive callback for the Walloon applicant only* and the (iv) *positive callback for the Flemish applicant only*. This difference is taken because there is no reason to believe that discrimination occurs each time when an applicant is treated unequally. A positive sign of the net discrimination rate would mean that the Flemish are discriminated against while a negative sign would mean that Walloons are discriminated against.

The result on the sensu stricto (sensu lato) *net discrimination rate* in Table 5.2 equals \(-0.44\) \((-0.25\). This results means that for 0.44% (0.25%) of the applications for which at least one applicant received positive callback, the Walloon applicant is likely to experience discriminatory behaviour from the recruiter. Based on a \(\chi^2\) test, the hypothesis that both applicants are equally treated is rejected at 5% (5%) significance but not at 1%(1%) significance.
5.3.2 The positive callback ratio

The second discrimination measure is the positive callback ratio and based on our results it shows how many more positive callbacks the Walloon applicant receives relative to the Flemish applicant. The positive callback ratio is calculated by dividing the number of positive callbacks for the Walloon applicant divided by the number of positive callbacks for the Flemish applicant. Another way to calculate the positive callback ratio is to divide the positive callback rate of the Walloon applicant by that one of the Flemish applicant. The positive callback rate is the number of positive callbacks an applicant received divided by the total number of applications the applicant sent. A positive callback ratio bigger than one means that the Walloon applicant receives more positive callback than the Flemish while a positive callback ratio smaller than one means that the Flemish receives more positive callback than the Walloon applicant.

Our result on the sensu stricto (lato) positive callback ratio in Table 4.2 is 0.56 (0.75). This result means that the Walloon gets 44% (25%) less positive callback compared with their Flemish counterparts. Based on a t-test, we reject the null-hypothesis that both applicants received the same amount of positive callback at the 5% (5%) significance level, but not at the more restrictive level of 1%.

Table 4.2 shows that the Walloon’s applications never resulted in positive callback alone, without a positive callback for the Flemish’s application alike. This is the reason the positive callback ratio is just “1 + net discrimination rate”. Consequently, the positive callback ratio and the net discrimination rate have the same economic and statistical significance. We chose therefore to interpret from now on only the positive callback ratio.

5.3.3 Heterogeneity of discrimination

We found in the previous section that for all the vacancies together the Walloon applicant got significantly less positive callback than his Flemish counterpart. To get a better view on the drivers behind the unequal treatment of the Walloon applicant we present in this section the positive callback ratio following several job characteristics: These job characteristics are teamwork, customer contact, distance from residence to workplace and language ability.

The opposing vacancy groups with no statistical significant positive callback ratios at 5% significance level (nor at 10%) are language ability is not a component (0.85), without customer contact (0), teamwork (0.67), distance for both candidates are less than 30 km (0.75)
and distance for both candidates are less than 30 min by car (0.78). These positive callback ratios are not significantly different from 1 at the 5% significance level nor at the more restrictive level of 10%. We can therefore not conclude that the positive callback ratios for these characteristics indicate that the Walloon applicant got significantly less positive callback than his Flemish counterpart.

Table 5.3. shows the sensu lato positive callback ratio follow vacancy groups based on different job characteristics and elements of the distance between workplace and residence. Each characteristic in The opposing vacancy groups with no statistical significant positive callback ratios at 5% significance level (nor at 10%) are language ability is not a component (0.85), without customer contact (0), teamwork (0.67), distance for both candidates are less than 30 km (0.75) and distance for both candidates are less than 30 min by car (0.78). These positive callback ratios are not significantly different from 1 at the 5% significance level nor at the more restrictive level of 10%. We can therefore not conclude that the positive callback ratios for these characteristics indicate that the Walloon applicant got significantly less positive callback than his Flemish counterpart.

Table 5.3 splits the entire group of vacancies in a group with that characteristic and one without that characteristic. For example, the opposite vacancy group of teamwork is without teamwork. Among the vacancy groups with a same characteristic, The opposing vacancy groups with no statistical significant positive callback ratios at 5% significance level (nor at 10%) are language ability is not a component (0.85), without customer contact (0), teamwork (0.67), distance for both candidates are less than 30 km (0.75) and distance for both candidates are less than 30 min by car (0.78). These positive callback ratios are not significantly different from 1 at the 5% significance level nor at the more restrictive level of 10%. We can therefore not conclude that the positive callback ratios for these characteristics indicate that the Walloon applicant got significantly less positive callback than his Flemish counterpart.

Table 5.3 shows that there is always one vacancy group with a statistical significant sensu lato positive callback ratio. The vacancy groups for which the positive callback ratio is significantly different from one at the 5% significant level are language ability is not a component (0.64), with customer contact (0.81), without teamwork (0.76), distance for both candidates are less than 30 km (0.75) and distance for both candidates is not less than 30 min by car (0.73). For those vacancies with these job characteristics, applicant got less positive call-back compared with his Flemish counterpart.

The opposing vacancy groups with no statistical significant positive callback ratios at 5% significance level (nor at 10%) are language ability is not a component (0.85), without customer contact (0), teamwork (0.67), distance for both candidates are less than 30 km (0.75) and distance for both candidates are less than 30 min by car (0.78). These positive callback ratios are not significantly different from 1 at the 5% significance level nor at the more restrictive level of 10%. We can therefore not conclude that the positive callback ratios for these characteristics indicate that the Walloon applicant got significantly less positive callback than his Flemish counterpart.
Table 5.3 Sensu lato positive callback ratio follow the variables language ability, teamwork, customer contact and distance in km and minutes between residence and the work place

<table>
<thead>
<tr>
<th>Applications</th>
<th>Positive callback for neither of both applicants (i)</th>
<th>Positive callback for both applicants (ii)</th>
<th>Positive callback for the Walloon applicant only (iii)</th>
<th>Positive callback for the Flemish applicant only (iv)</th>
<th>Upper &amp; lower bound</th>
<th>95% confidence interval</th>
<th>positive callback ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All vacancies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>261</td>
<td>18</td>
<td>0</td>
<td>6</td>
<td>0.75**</td>
<td>2.47</td>
</tr>
<tr>
<td><strong>Job characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language ability is a component</td>
<td>94</td>
<td>81</td>
<td>11</td>
<td>0</td>
<td>2</td>
<td>0.85</td>
<td>1.42</td>
</tr>
<tr>
<td>Language ability is not a component</td>
<td>191</td>
<td>180</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>0.64**</td>
<td>2.02</td>
</tr>
<tr>
<td>With customer contact</td>
<td>186</td>
<td>165</td>
<td>17</td>
<td>0</td>
<td>4</td>
<td>0.81**</td>
<td>2.02</td>
</tr>
<tr>
<td>Without customer contact</td>
<td>99</td>
<td>96</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1.42</td>
</tr>
<tr>
<td>Teamwork</td>
<td>28</td>
<td>25</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0.67</td>
<td>1.00</td>
</tr>
<tr>
<td>Without teamwork</td>
<td>257</td>
<td>236</td>
<td>16</td>
<td>0</td>
<td>5</td>
<td>0.76**</td>
<td>2.25</td>
</tr>
<tr>
<td><strong>Distance from residence to workplace</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from both candidates is less than 30 km</td>
<td>190</td>
<td>174</td>
<td>12</td>
<td>0</td>
<td>4</td>
<td>0.75**</td>
<td>2.02</td>
</tr>
<tr>
<td>Distance from both candidates is not less than 30 km</td>
<td>95</td>
<td>87</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0.75</td>
<td>1.42</td>
</tr>
<tr>
<td>Distance for both candidates is less than 30 min by car</td>
<td>168</td>
<td>159</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>0.78</td>
<td>1.42</td>
</tr>
<tr>
<td>Distance for both candidates is not less than 30 min by car</td>
<td>117</td>
<td>102</td>
<td>11</td>
<td>0</td>
<td>4</td>
<td>0.73**</td>
<td>2.03</td>
</tr>
</tbody>
</table>

(\textit{Source}: Author’s calculations based on own data)

We note that the positive callback ratios for each vacancy group do not differ much from the positive callback ratio of all the 285 vacancies together (0.75). In that respect, we would expect that all these vacancy groups would show statistical significant positive callback ratios. Why is it not the case? The reason is that most positive callback ratios of vacancy groups that are not statistical significant show virtually samples of observations that are smaller than its opposite vacancy group. A smaller sample of observations leads to smaller standard errors and can therefore lead to insignificant results. Taking in account the similar magnitudes and
high standard errors of the positive callback ratios, it is not surprising that our positive callback ratios for each vacancy group are not all statistical significant nor statistically different from its opposing vacancy group.

The results on the sensu stricto (not lato) positive callback ratio following job characteristics and distance from residence to workplace (see Annex 13) show similar results with results under sensu lato from The opposing vacancy groups with no statistical significant positive callback ratios at 5% significance level (nor at 10%) are language ability is not a component (0.85), without customer contact (0), teamwork (0.67), distance for both candidates are less than 30 km (0.75) and distance for both candidates are less than 30 min by car (0.78). These positive callback ratios are not significantly different from 1 at the 5% significance level nor at the more restrictive level of 10%. We can therefore not conclude that the positive callback ratios for these characteristics indicate that the Walloon applicant got significantly less positive callback than his Flemish counterpart.

Table 5.3 but under sensu lato the statistical significant positive callback ratios are now only statistically significant at the more restrictive level of 10%.

5.3.4 Conclusion

Our sensu stricto (lato) results on discrimination show that the Walloon applicant got 0.43% (0.25%) less positive callback in comparison with their Flemish counterpart. In the equivalent field experiment conducted in the Flemish labor market (Vandevoorde & Van de Walle, 2015b), the authors found that the Walloon got 21% (24%) less sensu stricto (lato) positive callback compared to his Flemish counterpart. Statistically that ratio is significantly different from 1 at 5% (1%) significance level. Furthermore, the amount of positive callback in their correspondence study was much higher than ours. Their results show that for about 50 (86) out of 256 vacancies at least one candidate received sensu stricto (lato) positive callback while in our correspondence study only for 7 (24) out of 285 vacancies at least one candidate received sensu stricto (lato) positive callback. They got virtually 8 (9) times more positive callback. The big difference in the amount of positive callback between Vandevoorde & Van de Walle (2015) and this correspondence study, is important and calls for investigation. In the following section, we therefore address the general low number of positive callbacks for both candidates and try to find several important causes such as

The overall low amount of positive callback in this correspondence study could not avoid that we found statistical significant results for the unequal treatment of the Walloon applicant in the Walloon labor market. Furthermore, there were no vacancies for which there was only positive callback for the Walloon applicant (see column (iii) in The opposing vacancy groups with no statistical significant positive callback ratios at 5% significance level (nor at 10%) are language ability is not a component (0.85), without customer contact (0), teamwork (0.67), distance for both candidates are less than 30 km (0.75) and distance for both candidates are less than 30 min by car (0.78). These positive callback ratios are not significantly different from 1 at the 5% significance level nor at the more restrictive level of 10%. We can therefore not conclude that the positive callback ratios for these characteristics indicate that the Walloon applicant got significantly less positive callback than his Flemish counterpart.
Table 5.3) but in the equivalent correspondence study conducted in the Flemish labor market (Vandevoorde & Van de Walle, 2015) there were 6 (11) vacancies for which there was only sensu stricto (lato) positive callback for the Walloon applicant. In that respect, the unequal treatment of the Walloon candidate in the Walloon labor market is not an unimportant outcome and will be addressed in the last section of this part.

5.4 Low positive callback: possible causes

A first important outcome of our results is the small amount of positive callback. It is small compared with the amount of positive callback from the equivalent correspondence study in the Flemish labor market (Vandevoorde & Van de Walle, 2015). But this comparison is not optimal since the Flemish and the Walloon labor market are not that similar (see 2.2.). Since our correspondence study was the first to be conducted in the Walloon labor market, it is we explore several possible causes of the low positive callback.

5.4.1 Reasons for negative callback

We analyze the content of callback of the 37 applications for which both candidates received a negative callback with the same message to shed light on possible reasons for negative callback by employers.

Graph 5.1 Content of callback in case both applicants got the same content negative callback

(Source: Author’s compilation based on author’s data)

Graph 5.1. shows that there are 37 out of 285 applications for which both candidates received negative callback. 12 of those 37 negative callbacks stated that the employer replied that he already found another candidate. For another 10 negative callbacks, no explicit reason for both candidates’ refusal was given. Some employers also refused both candidates on grounds of their profile: 6 negative callbacks because their profile did not correspond; 3 negative callbacks because profile did not correspond enough and another 3 negative callbacks because others showed a more corresponding profile. The fact that employers refused because of the candidates’ profile is unexpected because each application was done follow several criteria (cf. supra) and candidates’ profiles fitted enough vacancies requirements. However, we discuss beneath (see 4.3.4. and 4.3.5.) two issues on the link between the candidate’s profile and the occupation for which we applied for.
5.4.2 Duration of the correspondence study
We were forced by circumstance of small numbers of vacancies for low-skill workers to apply longer. Employers could view how many time our fictitious candidates were unemployed because of their date of graduation from secondary school was mentioned in their CV. We believe that because of the longer the unemployment spell, employers would have been less interested to call back positively. This finding is in line with the research of Kroft et al. (2015) that conducted a field experiment in the American labor market and found that the likelihood of receiving callback for an interview significantly decreased with the length of a worker’s unemployment spell, and most of the decrease during the first eight months.

In an equivalent correspondence study conducted in the Flemish labor market by Vandevenorde & Van de Walle (2015), conducted at the same time as this correspondence study, the first application was sent on 30 November 2014 and the last one at 10 April 2015. It is a period of 132 days during which only 101 days (or 14 weeks) were used to apply. During this period, they sent 253 applications, which implies almost 2.53 application per day (or ± 18 per week). In this correspondence study, we only sent 1.40 applications per day which is a difference of approximately 1 application with the Flemish correspondence study. Our correspondence study compared with the Flemish correspondence study, showed that less low-skill jobs were available in the Walloon labor market than in the Flemish labor market during the end of 2014 and the beginning of 2015. We assume that therefore the creation of low skill jobs in 2015 was much lower in the Walloon work places of our correspondence study than in the Flemish workplaces of Vandevenorde & Van de Walle (2015). Another reason could be that low-skill jobs in Wallonia more than in Flanders are rather communicated via other job communication channels than FOREM (see 4.3.6.).

5.4.3 Labor market tightness
Another reason for the low positive callback rate is the high unemployment rate among the young low-educated in Wallonia (32.3%). The high youth unemployment in Wallonia makes the labor supply much higher than the labor demand. Our candidates had a low-skill profile (cf. supra) and therefore the probability of being rejected after a job application was probably high.

But how can we know for how many vacancies in our experiment there were a lot of candidates? We can link the problem of high unemployment among low skilled in Wallonia with information on labor market tightness for occupations in our experiment. Labor market tightness refers to the quantity of candidates available for occupations. There exist two situations: (1) a small number of candidates for a lot vacancies and (2) a big number of candidates for a small number of vacancies. Baert et al. (2013) has shown that employers with difficulties to fill their vacancies, will call back more positively compared to employers not facing difficulties to fill their vacancies. Table 5.2. (cf. supra) shows under labor market tightness that 75% of the low-skill occupations we applied for were non-bottleneck
occupations, occupations for which employers do not face difficulties in finding candidates. Moreover, these low-skill non-bottleneck occupations had probably a lot of applicants given there are many low-skilled unemployment. We believe therefore our low skilled candidates were among a lot of candidates applying for those 213 low-skill non-bottleneck occupations in the Walloon labor market and had for this reason not much chance to get positive callback.

5.4.4 Occupation type
The type of occupation is another explanatory factor for the low number of positive callbacks. CVs were made to match the best with sales jobs and were never adapted to the profile of the job. It is therefore likely that globally lower proportions of positive callback were found for occupations with no direct link to sales. Table 7 (annex) shows the different occupation type groups: sales, cleaning, manual work, other, horeca and management & administration. Not surprisingly, sales accounts for one third of the applications and accounts for most positive callback. Horeca and management & administration show little amounts of positive callback. Horeca majorly contains jobs for waiters and barmen. Follow Hambije & Hertveldt (2011) the Belgian horeca sector is characterized by a high share of part-time and low-educated workers. These two characteristics should not have been an obstacle for both applicants. On the other hand, vacancies for horeca jobs suggested application by personal contact in real or by telephone. We know that for jobs other than white-collar, mostly low-wage jobs, “a mailed-in resume would appear highly out of place” (2007, p. 111). But to avoid any unobservable influence on the employer’s call-back we never applied by telephone or by personal contact (cf. supra) Management and administration is with 19 data units the smallest group among the occupation types. From an in-depth analysis, we know that these occupations consisted majorly out of strong sales oriented management and administration jobs. Other contains different occupations.

Cleaning, manual work and horeca don’t show any positive callback under sensu stricto. Even though applicants fitted these occupations’ requirements (cf. supra), it is very likely employers were not interested because of no direct explicit link between these occupations and their seller profile. Cleaning, manual work and horeca together account for 48% of all sent applications. One could think that recruiters of cleaning jobs would ignore applications when they came from male job seekers. Cleaning contains mainly jobs for cleaners or housekeepers. Research has shown that occupations for which the share is 80% or more, a pro-female bias in callbacks is present (Booth, ...). They explain that if jobs are perceived as more appropriate for women, male applicants may be evaluated less favourably because “they do not fit society’s prescriptions about what is appropriate for men” (Booth & Leigh, 2010). In 2010, the Belgian federal public service of economy released a list with the 20 most female jobs in Belgium and which is presented in Table 8 (see annex). The share of female workers in the occupation of domestic worker in that list is about 98.2% and for classic cleaner it is 85.5%. Table 8 (see annex) shows that approximately one third of the jobs we applied for are female-dominated. Intensive manual executions characterize manual work not requiring high skilled labor and can be categorized as partially blue-collar22 work. One can think that, to be considered by recruiters, applicants for manual work jobs should show some specific initial experience. Both fictitious applicants had only work experience as job student in sales work
and no link to manual work. An in-depth analysis of recruiters’ replies showed that employers often found that applicants had not the exact corresponding profile.

5.4.5 The CV format

CV standards in the Walloon labor market could maybe explain also the low amount of positive callback. CVs sent during the application process were CV-templates found on the website of VDAB23, the Flemish public employment service. CV templates of the VDAB because our methodology was aligned with the methodology from Vandevoorde and Van de Walle (2015). It is therefore probable that our CVs represented rather CV-standards from the Flemish labor market instead from the Walloon labor market.

Are CV-standards different between Walloon and Flemish labor market? To answer that question, we conducted a comparison between CV-templates24 for low-wage workers from VDAB and FOREM. We assume that the way these templates are constructed reflects preferences of the Walloon and Flemish employers in terms of content and presentation.

We found only that the manner of presenting CVs differs on 2 grounds between VDAB and FOREM. First, FOREM’s CV templates (see Annex 14) mention job name while VDAB does not propose to emphasize the job name in the CV. Second, FOREM’s CV templates (annex) propose to highlight explicitly beneath the job title the specific key personal competences necessary for the corresponding job while VDAB proposes job seekers to list and highlight competences acquired through precedent experiences.

Follow a conversation with a FOREM researcher specialized in Belgian interregional labor mobility, there are no substantial differences between CVs of VDAB and FOREM but that VDAB focuses a lot on the accuracy and precision of the CV’s content (Scohier, 2016). This last point joins the fact that VDAB proposes to list precisely the competences acquired through precedent experiences. VDAB is in this respect more precise than FOREM that only proposes a summary of personal competences. In an e-mail to VDAB and FOREM CV advisors, asking for a correction of the field experiment’s CVs (see Annex 14 and Annex 15), they did confirm the CV differences partially with their correction. We note that CVs in this field experiment were standard and never adapted with respect to the job and its specific competences. Because of the use of standard CVs during our correspondence test, a switch from VDAB template to a FOREM CV template would not have increased the positive callback rate.

However, the previous differences between the CV templates from VDAB and FOREM indicate that the Walloon employer would prefer and expect a more explicit match between the CV and the job in terms of presentation compared to the Flemish employers. It is therefore likely that the use of standard CVs without adaptation follow the application, was more detrimental for the positive callback in our correspondence test in Wallonia than for the correspondence test in Flanders.

23 VDAB= “Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding”. Flemish Authority for Labor Market Mediation and Professional Training. It is the Flemish public employment service
5.4.6 Recruitment channel

Vacancies we applied for were retrieved only from FOREM’s digital vacancy platform. However, other vacancy communication channels exist and it is possible that some other channels communicate also vacancies for low-skill jobs. A study realized by Idea consult (2006) shows that in 2006 only 46% of Walloon companies used the FOREM digital vacancy platform to announce their vacancies. But during the next 10 years following 2006, digitalization of vacancies via forem.be has only been growing via, inter alia, the automatic diffusion of vacancies by employers and employment agencies. Employers in Wallonia have the right to announce new job offers where they want (Dalla Valle, 2016). That’s why a part of low-skill jobs is probably communicated via other job communication channels such as job websites, websites of private employment agencies, local newspapers, social media, advertising leaflets and by displaying vacancies in storefronts. We investigated several of those other job communication channels covering the Walloon labor market.

*Job websites* advertising low wage jobs are mainly jobat.be, stepstone.be, vacature.be, references.lesoir.be, jobsregions.be and monster.be. They announce majorly vacancies from private employers, private employment agencies and public employment services like FOREM. Interesting jobs not announced on forem.be were scarce and required mostly a subscription on the website before a job application could be executed. Furthermore, CV and cover letter needed to be uploaded to complete the subscription or form. A subsequent problem was that different CVs could not be uploaded on the same name. Similar problems were experienced on websites of private employment agencies. The *employment search engines* like Indeed.com that aggregate job listings from *job websites* and *employment agencies* were neither effective because they only showed a very little share of labor market’s vacancies.

*Local newspapers* diffused in the experimental zones as Hainaut and Liège, are l’Avenir and Sudpresse. Both issue its newspapers by region in all French-speaking parts of Belgium. L’Avenir’s regional journals we were interested in were “L’Avenir Liège”, “L’Avenir Huy-Waremme” and “L’Avenir Wallonie Picarde”. Supresse’s regional journals are “La Meuse Liège”, “La Meuse Huy-Waremme”, “Nord Eclair Tournai” and “Nord Eclair Mouscron”. Their regional versions include sometimes job announcements. However, these job announcements were scarce and announcements for low-wage jobs required almost always contact by telephone and not by e-mail.

Regional *advertising leaflets*, which is known in Belgian French language as “toutes-boîtes”. are used to announce a lot of local job adds (RTBF, 2014). Another job communication channel is the *display of vacancies in storefronts*. Logistically, there was no possibility to get a view on advertised leaflets and vacancies displayed on storefronts.

5.4.7 Conclusion

Several explanations can figure as cause for the low positive callback from employers. Generally, the Walloon labor market supply of low skilled workers is very high and is possibly a main explanation for the low positive callback. The high labor supply of low skilled workers implies that many unemployed will apply for the same jobs. Most occupations we applied for are not bottleneck occupations which means that employers do not face difficulties to find candidates for these occupations and thus these are the occupations that face the most of
candidates. Since there are a lot of Walloon unemployed, our applicants were possibly among a lot of candidates for most occupations (75%) we applied for.

The chance of getting positive callback was thus low because of too many candidates for low-skill jobs in the Walloon labor market and got worse for our candidates for at least two reasons. First, the scarce number of sales jobs in the Walloon labor market made us apply also for low-skill occupations with no explicit link to our candidates’ sales profile. Even if the candidates’ profile always fitted the vacancies’ requirements, their inexplicit link with some occupations would make their applications less interesting among other numerous candidates in the Walloon labor market. Second, differences between CV-templates and CV recommendations from VDAB and FOREM indicate that the Walloon employer compared to the Flemish employer would rather prefer and expect a more explicit match between the candidate’s CV and the job in terms of the presentation of competences. Since CVS were standard, we think therefore that the Walloon employer would have been less interested in a standard CV than a Flemish employer. This analysis show that Walloon employers expect rather a clear explicit link between the candidate’s profile and the job.

Other possible causes of low positive callback are the fact that we applied longer to get more vacancies. Applying longer means that our candidates stayed longer unemployed and decreases their chance of getting positive callback. Another reason for the low positive callback is that employers of low-skill jobs communicate rather their vacancies by other channels instead of the FOREM online vacancy platform. However, this seems not really the case since we investigated other vacancy communications channels as job websites, websites of private employment agencies, local newspapers and social media and found that there was almost no interesting vacancy for low-skill workers that was not published on FOREM. Vacancies announced via advertising leaflets and by displaying vacancies in storefronts are two channels through which vacancies for low-skill jobs are announced but were impossible to be investigated and exploited.

5.5 Unequal treatment of Walloons: possible reasons
A second important outcome of our result is that the discrimination measure is statistically significant. Under the strict (broad) sense of positive callback, a Walloon gets 44% (25%) less positive call back than his Flemish counterpart. This rate is statistically significant at the 5% (5%) significance level but not at 1% (1%) significance level. Given our research hypothesis (see 2.3.) this result was not completely unexpected. Our research hypothesis predicted a small statistically insignificant unequal treatment of the Walloon applicant. Our results show a much bigger unequal treatment which is statistically significant. Furthermore, the Walloon applicant had any application for which he was the only one invited (see table 5.2.). The statistical significant unequal treatment of the Walloon and the fact that the Walloon applicant got no positive callback for him alone make about other possible causes of the unequal treatment of the Walloon beyond our understandings from our literature review (see 2.3.). Beneath we show that culture is possibly not the only explanatory factor which is driving our results and present some other possible explanatory factors. We first investigate the different employers’ reasons used to discard the Walloon applicant.
5.5.1 Reasons given by employers for refusing a Walloon candidate (1/2 page)

It is important to know the employers’ reasons for refusal of the Walloon applicant in case the Flemish candidate got positive stricto (lato) positive callback to better understand the Walloons unequal treatment. Refusal of the Walloon applicant is the same as negative callback of the Walloon applicant and can therefore have two meanings: a strict (sensu stricto) meaning and a large (sensu lato) meaning (see 4.2.1). We look especially to reasons containing language and distance because we do want them to drive the unequal treatment of the Walloon candidate. However, employers’ reasons for refusal need to be treated with care since employers are free to write what they want.

Table 4.2. shows the different reasons for the refusal of the Walloon candidate in case the Flemish candidate got positive stricto or lato positive callback. Under sensu lato, we see that for 3 out of these 6 vacancies, the Walloon received no callback at all and thus we do not know any reason for refusal. The employer refused also twice the Walloon candidate because follow them the Walloons’ profile did not correspond. Last, he refused also once the Walloon candidate but did not mention the reason of refusal. We know thus that under sensu lato, language and distance do not drive the refusal of the Walloon candidates. Under sensu stricto, there are 4 vacancies for which the Flemish applicant was invited to a job interview while the Walloon applicant was refused. For one of these vacancies, the Walloon received no callback and thus no explicit refusal. The employer also called once the Walloon back to refuse but without mentioning a reason. Last, the employer refused twice the Walloon applicant because of language.

How can we explain that language was not a driver under sensu lato but was under sensu stricto? When looking to the content of these 2 callbacks through which the Walloon was refused because of language, we know that the employer was interested however before proceeding the Walloon candidate needed to prove his language ability in Dutch. The Walloon was thus not invited to a job interview and “refused” under the strict sense of positive callback while under the broad sense of positive callback, the fact that the employer was interested counts as positive callback and thus not as a refusal. Consequently, the 2 refusal of candidate on basis of language under strict sense of positive callback in table 4.2. cannot be a reason for refusal under sensu lato positive callback

Table 4.2. Reasons for the sensu stricto and lato refusal (negative callback) of the Walloon applicant when Flemish applicant was accepted (positive callback).

<table>
<thead>
<tr>
<th>Reason refusal of the Walloon candidate</th>
<th>Sensu lato</th>
<th>Sensu stricto</th>
</tr>
</thead>
<tbody>
<tr>
<td>No callback</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Callback but no reason</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Language</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Profile does not correspond</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

(Source : Author’s compilation based on author’s data)

It is unusual that under the sensu stricto positive callback two equal candidates, with equal language competences in their CV, are not equally treated because of their language
competences. Why did employers doubt about the language competences of the Walloon candidate but not of the Fleming? Both candidates had equal language competences in Dutch and French mentioned in their CV. Therefore the only doubt employers could have about the candidate’s language competence was about the language which was not his mother tongue. Dutch is the mother tongue of the Fleming while French is the mother tongue of the Walloon. Since applications were written in French the Flemish candidate could partially signal his competences in French while the Walloon did not have the possibility to signal his competences in Dutch. However, we don’t think that the cover letter and CV could signal good language competences in French because the cover letters are very simple and could easily been written by another person with an average knowledge of French. Furthermore, stereotypes exist about Flemings’ and Walloons’ average language competences in French and Dutch. The Fleming is positively stereotyped when it comes to his competences in French while the Walloon is negatively stereotyped when it comes to his competences in Dutch. Both explanations are possible but we need to be careful since employers can say whatever they want to refuse a candidate. Language reasons for refusal could have been used as a pretext to discard the Walloon applicant.

Under the broad sense of positive callback, language and distance were not used as reason by the employer to discard the Walloon applicant. For results on positive callback under the strict sense, language is not independent from the unequal treatment of the Walloon candidate.

5.5.2 Order of sent applications
Even though we have a random sample (see 4.3.1), one could still think that, for those vacancies for which the Walloon is unequally treated, the Walloon candidate could have applied many times after the Flemish applicant. The data (see Annex 19 and Annex 20) shows us the opposite, for those vacancies for which the Walloon is unequally treated, the Walloon applicant applied always a day before the Flemish applicant. The order in which applications were sent can therefore not drive the unequal treatment of the Walloon.

5.5.3 Discrimination on basis of the place of residence
Walloon applicants came from northern Hainaut and northern Liège and Flemish applicants from Southern East-and West-Flanders and Limburg. Some parts of Liège and Hainaut are negatively stereotyped because of a low socio-economic level, i.e. high unemployment rates, more school drop outs. The Walloon candidates could therefore have been disadvantaged because employer could have associated them with these negative stereotypes from these regions. In a paper estimating the effect of coming from a disadvantaged neighborhood Paris on discrimination (Petit, Duguet, L'Horty, du Parquet, & Sari, 2013) the authors found that women living in disadvantaged neighborhoods compared to women not living in disadvantaged neighborhoods have a smaller probability of getting hired. We follow Petit et al. (2013) to determine the unemployment rate as an indicator for disadvantaged neighborhoods.

Since our candidates are young school leavers, we present in table 4.4. the administrative youth unemployment rates for people between 15 to 24 years old. For the different living places of the Walloon candidate, the overall youth unemployment rate (column 4) for all concerned living places together is 39.47% and twice as high as that one for the different living places of the Flemish candidate which is at 17.6%. We calculated also the average
unemployment rate\textsuperscript{25} for the Flemish living places is 16.69\% and 33.72\% for the Walloon living places. The average unemployment rate (column 5) for both groups of living places do not explain much but their standard errors (column 6) do\textsuperscript{26}. They show that the unemployment rates vary more among Walloon living places (5.90\%), than among Flemish living places (3.63\%). These standard errors are not big enough to conclude on big geographical disparities in terms of unemployment rates.

**Table 12: Information on administrative youth unemployment rates (15 – 24 years old) for all field experiment’s living places in Wallonia and Flanders**

<table>
<thead>
<tr>
<th>Livingplace</th>
<th>Active population</th>
<th># Unemployed</th>
<th>Unemployment rate</th>
<th>Average unemployment rate</th>
<th>Standard error unemployment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wallonia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All livingplaces</td>
<td>24574</td>
<td>9699</td>
<td>39,47%</td>
<td>33,72%</td>
<td>5,90%</td>
</tr>
<tr>
<td>All livingplaces</td>
<td>16643</td>
<td>6091</td>
<td>36,60%</td>
<td>33,21%</td>
<td>5,50%</td>
</tr>
<tr>
<td>Without Liège(city)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flanders</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All livingplaces</td>
<td>6325</td>
<td>1116</td>
<td>17,64%</td>
<td>16,69%</td>
<td>3,63%</td>
</tr>
</tbody>
</table>

Note: Table contains information on youth unemployment rates for all the applicant’s living places in the field experiment. More precise: the active population, the number of unemployed, the unemployment rate, the average unemployment rate and the standard error of the youth unemployment rates. Wallonia’s living places part of the field experiment are Beloeil, Saint-Ghislain, Ath, Frasnes-Lez-Anvaing, Bruxheand, Tournai, Jurjso, Grâce-Hollogne, Liège, Oupeye, Wasseiges, Wanne, Modave, Huy, Amay, Verlaine, Esneux, Seraing, Sprimont, Chaudfontaine, Beyne-Heusay, Braives, Geer and Rémicourt. Flanders’s living places are Avelgem, Brakel, Geraardsbergen, Kluisbergen, Zwevegem, Maarkedal, Tongeren, Riemst, Gingelom and Heers.

(Source: Author’s calculations based on data on administrative unemployment rates per municipality from 2014 retrieved from Steunpunt Werk databank)

We conclude from Table 12 that there are reasons to believe that Walloon employers would have associated negative stereotypes on work attitudes to the Walloon applicant since the different Walloon’s living places have very high youth unemployment rates which are generally 2 to 3 times higher compared to the unemployment rates of the Flemish candidate’s living places. For this reason, we think that the discrimination of the Walloon candidate in the Flemish labor market in Vandevoorde and Van de Walle (2015) was also influenced by negative stereotypes linked to certain specific Walloon regions.

Future research can investigate how Walloon vs. Flemish candidates are treated in the Walloon and Flemish labor market but including fictitious Walloon candidates coming from regions with lower unemployment rates such as Walloon Brabant. These studies could shed more light on the influence of the socio-economic background of the Walloon candidate on the hiring decision in Walloon and Flemish companies.

From the “origin of hiring discrimination” in the literature review (see 3.2.2 and 3.2.3), we know that stereotypes are very complex and a lot of factors influence and develop

\textsuperscript{25}Average unemployment rate municipalities = \frac{\text{Sum unemployment rates of the different places}}{\text{Number of municipalities}}

\textsuperscript{26}The average unemployment rate is unable to account for the proportion of unemployed people for each municipality.
stereotypes. The relative low economic performance indicators such as high unemployment rates nourish negative stereotypical thoughts on work attitudes of Walloons. If unemployment influences stereotypical thoughts about the “lazy Walloon” we would find greater discrimination against Walloons coming from high unemployment regions relative to low unemployment regions.

5.5.4 The educational performance gap between Flanders and Wallonia

The education of the Flemish and Walloon candidate in their CVs was equal. They followed both the same studies in similar schools (see 3.3.1.). But one can still think that even if a Flemish candidate and a Walloon candidate had equal profiles, it can be that the overall level of education is different between Flanders and Wallonia? Follow PISA-studies, the French speaking Community has weaker results than the Flemish Community in terms of level for all three fields of educational performance: science, math and reading (Cockx, 2013). Could these differences have influenced the hiring decisions of the Walloon employer in this correspondence study? This question raises another question: in what extent Walloon employers are aware of this education gap between Flanders and Wallonia?

When it comes to hiring candidates for low-skill jobs, we think that employers would care more about candidates’ work attitudes than their educational performances. Therefore, the differences in terms of PISA scores seem not that important. However Vandeberghe (2011) clarifies: educational performances can be understood from 2 sides, the supply side which contains schools, teachers and public authorities and the demand side which contains pupils and their families. From the supply side of education, the educational gap between Flanders and Wallonia would exist because of differences in educational institutions. From the demand side of education, educational performances depend on the students and their families to employ efforts. Students’ and families’ efforts can depend on many factors such as the socio-economic environment and culture. Follow Perelman, Pesteau, and Santin (2011), it is probably that the unexplained educational performance gap between Flanders and Wallonia can be explained by several factors like rate of unemployment, cultural life, the growth rate, the values and the expectations, the political leanings. They say also that the Flemish seem to be more dynamic and optimistic, more conservative and trusting the market than the Walloon. As Levin (1997)says, low performing students are often a product of a poor socio-economic environment. Wallonia is less prosperous than Flanders and this economic difference can be an explanatory factor for the low PISA results of Walloon region. Furthermore, it not surprising that Hainaut and Liège show low educational performances since these regions were affected by a strong deindustrialization. Follow Vandenberghue (2011) poor economic performances in some parts of Wallonia influence the low educational performances of Wallonia. He says for example that the school dropout rates in Hainaut (25%) and for Liège (23%) are very high while other provinces have much lower percentages: Walloon Brabant (13.9%), Luxemburg (14.4%) and Namur (19.6%).

Our Walloon fictitious candidates come from Hainaut and Liège, the low-performing Walloon provinces in terms of education and thus show a significant education performance gap with the Flemish candidates.
5.5.5 Discussion and conclusion

We found several possible reasons that could explain the unequal treatment of the Walloon candidate. An analysis of employers’ reactions (sensu lato positive callback) have shown that language and distance were not used as a reason to discard the Walloon. Employers’ reactions on candidates’ applications did not give extra insight on the causes of the unequal treatment of the Walloon candidate. In that respect, our results would thus be due to the candidate’s belonging to a particular group: Flanders or Wallonia.

Generally, we found that the socio-economic environment of the living places of both candidates could have played a role behind the unequal treatment of the Walloon candidate. The Walloon candidate in comparison with the Flemish candidate came from provinces that show higher unemployment rates and lower educational performance. Furthermore, those regions of the Walloon candidate show also higher unemployment rates and smaller educational performances compared with the rest of Wallonia. In general, the regions (their several living places) of the Walloon candidate would thus be generally qualified as more disadvantaged region in comparison with the rest of Wallonia and that for at least two important factors: unemployment and educational performance. In that respect, our Walloon candidates suffered from a negative stereotype on productivity linked with their region and its economic performance. Furthermore, the fact that Walloons perceive in general the Flemish as more hardworking has certainly played an important role in the discrimination of the Walloon applicant. We think thus that the unequal treatment of the Walloon candidate seems to point rather in the direction of discrimination on the place of residence, social background, and work attitudes (perception). These types of discrimination would fall under statistical discrimination (see 3.2.2).

So, what can be said about the role of culture behind our results? The fact that the measurement of correlation between preferences and beliefs and cultural groups faces problems of reverse causality and omitted variables (see 3.1.2) makes it difficult to study the relationship between the Walloon and Flemish culture and its impact on discrimination. Therefore, it would be interesting for further research to conduct a similar correspondence test with candidates coming from regions that can control for socio-economic factors. We think especially to the provinces of Walloon and Flemish Brabant that have similar socio-economic characteristics and are located each next to each other along the language border.

Our study faced several limitations. First, our results cannot be generalized to the entire Walloon labor market nor to all kind of job seekers. The vacancies we applied for came only from companies spread over 32 municipalities close to the language border in northern Hainaut and Liège. Furthermore, our results can only be generalized to the profile of our fictitious candidates: low-educated male school leavers. Next, we only focused on jobs retrieved from the website of the Walloon public employment service FOREM. It is possible that a part of the jobs we were interested in, were communicated by other job communication channels. A second limitation is that discrimination was only studied in the first stage of the hiring process. However, discrimination in the first stage is a good predictor for discrimination in the next stage of the hiring process (Bovenkerk, 1992). A next limitation is that we have a small number of observations and consequently we could not analyze heterogeneity of discrimination by several job characteristics. This could be an idea for further research. A last limitation is that our correspondence study could not distinguish between implicit and explicit
discrimination (see 3.2.3). Therefore, future research could combine a correspondence study with an IAT-test.
6 General conclusion

We conducted a correspondence test in the Walloon labor market to test if a Flemish job candidate compared to his Walloon counterpart is discriminated because of his belonging to Flanders. Our results show that the Flemish candidate is not discriminated compared to the Walloon candidate. This first finding is in line with our hypothesis. Furthermore, our results even show that the Flemish candidate is preferred upon the Walloon candidate. This second finding was not expected and points in the direction of discrimination on place of residence and social background.

Our study was unable to show that the candidates’ culture is an explanatory factor of our results on discrimination. Therefore, further research is necessary to shed light on the role of culture. On that matter, we especially recommend that another correspondence study includes homogeneous regions in Wallonia and Flanders, which would allow to control for regional socio-economic factors of the candidates. Furthermore, an IAT test could clarify the type of discrimination and help find policies that would contribute to the fight against discrimination in the Walloon labor market.

Correspondence tests have well known limitations. Our study was restricted to the study of discrimination in the first stage of the hiring process. Furthermore, our results can only be generalized to low-educated school leavers and to a restricted zone of the Walloon labour market. For these reasons our results need to be treated with care.
7 Bibliography


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8 Annexes

Annex 1 How “FRIENDLY” Flemings, Walloons, Moroccans, Turkish, Italians, and Zairians are perceived in Brussels, Flanders and Wallonia

(Source: Retrieved from “Onbekend of onbemond, een sociologisch onderzoek naar de houding van de belgen tegenover migranten” (Billiet et al., 1990))

Annex 2 How “GENTLE” Flemings, Walloons, Moroccans, Turkish, Italians, and Zairians are perceived in Brussels, Flanders and Wallonia.

(Source: Retrieved from “Onbekend of onbemond, een sociologisch onderzoek naar de houding van de belgen tegenover migranten” (Billiet et al., 1990))
Annex 3 Commuting routes from Flemish and Walloon residences to the matched Walloon workplace in the Province of Liège, Belgium.

(Source: Author’s compilation and based on data and map from Openstreetmap. made in Quantumgis)

Note: the table in figure x illustrates the nine different workplaces matched with a residence in Flanders and Wallonia. The lines on the map illustrate the different commuter routes. For example, for a job offered in Lincent, the Flemish applicant comes from Gingelom and the Walloon applicant from Wasseiges.
Annex 4 List of all residences and matched workplaces

<table>
<thead>
<tr>
<th>Workplace</th>
<th>Residence Walloon</th>
<th>Residence Flemish applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hainaut</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tournai</td>
<td>Beloeil</td>
<td>Avelgem</td>
</tr>
<tr>
<td>Ath</td>
<td>Saint-Ghislain</td>
<td>Brakel</td>
</tr>
<tr>
<td>Lessines</td>
<td>Ath</td>
<td>Geraardsbergen</td>
</tr>
<tr>
<td>Mont-de-l’Enclus</td>
<td>Frasnes-lez-Anvaing</td>
<td>Kluisbergen</td>
</tr>
<tr>
<td>Frasnes-lez-Anvaing</td>
<td>Beloeil</td>
<td>Kluisbergen</td>
</tr>
<tr>
<td>Pecq</td>
<td>Brunehaut</td>
<td>Zwevegem</td>
</tr>
<tr>
<td>Celles</td>
<td>Tournai</td>
<td>Avelgem</td>
</tr>
<tr>
<td>Elzezelles</td>
<td>Frasnes-lez-Anvaing</td>
<td>Maarkedal</td>
</tr>
<tr>
<td>Silly</td>
<td>Jurbise</td>
<td>Geraardsbergen</td>
</tr>
<tr>
<td>Elzezelles</td>
<td>Frasnes-lez-Anvaing</td>
<td>Maarkedal</td>
</tr>
<tr>
<td><strong>Liège</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awans</td>
<td>Grâce-Hollogne</td>
<td>Tongeren</td>
</tr>
<tr>
<td>Juprelle</td>
<td>Liège</td>
<td>Tongeren</td>
</tr>
<tr>
<td>Bassenge</td>
<td>Oupeye</td>
<td>Riemst</td>
</tr>
<tr>
<td>Lincent</td>
<td>Wasseiges</td>
<td>Gingelom</td>
</tr>
<tr>
<td>Wasseiges</td>
<td>Wanze</td>
<td>Gingelom</td>
</tr>
<tr>
<td>Burdinne</td>
<td>Modave</td>
<td>Gingelom</td>
</tr>
<tr>
<td>Braives</td>
<td>Huy</td>
<td>Gingelom</td>
</tr>
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<td>Faimes</td>
<td>Wanze</td>
<td>Gingelom</td>
</tr>
<tr>
<td>Donceel</td>
<td>Amay</td>
<td>Heers</td>
</tr>
<tr>
<td>Remicourt</td>
<td>Verlaine</td>
<td>Heers</td>
</tr>
<tr>
<td>Crisnne</td>
<td>Grace-Hollogne</td>
<td>Tongeren</td>
</tr>
<tr>
<td>Fexhe-Slins</td>
<td>Seraing</td>
<td>Tongeren</td>
</tr>
<tr>
<td>Grace-Hollogne</td>
<td>Esneux</td>
<td>Tongeren</td>
</tr>
<tr>
<td>Ans</td>
<td>Seraing</td>
<td>Tongeren</td>
</tr>
<tr>
<td>Liège</td>
<td>Sprimont</td>
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</tr>
<tr>
<td>Herstal</td>
<td>Chaudfontaine</td>
<td>Riemst</td>
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<td>Oupeye</td>
<td>Beyne-Heusay</td>
<td>Riemst</td>
</tr>
<tr>
<td>Visé</td>
<td>Beyne-Heusay</td>
<td>Riemst</td>
</tr>
<tr>
<td>Hannut</td>
<td>Braives</td>
<td>Gingelom</td>
</tr>
<tr>
<td>Geer</td>
<td>Braives</td>
<td>Gingelom</td>
</tr>
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<td>Berloz</td>
<td>Geer</td>
<td>Gingelom</td>
</tr>
<tr>
<td>Waremme</td>
<td>Faimes</td>
<td>Heers</td>
</tr>
<tr>
<td>Oreye</td>
<td>Rémicourt</td>
<td>Heers</td>
</tr>
</tbody>
</table>

(Source: Author’s compilation based on own data)
Annex 5 Example of FOREM vacancy

(Source: Website FOREM, Public employment service of the Walloon region, Belgium. Date webpage visit: 31 March 2015)

Note: the vacancy’s reference number is indicated in small letters at the top of the vacancy.
### Annex 6 Analysis of the studies of commerce in technical and vocational secondary education in the French-speaking and Flemish Community

<table>
<thead>
<tr>
<th>Community</th>
<th>Level of study</th>
<th>Name of Study or specialization (3th degree)</th>
<th>2nd language</th>
<th>3th language</th>
<th>Law</th>
<th>Economics</th>
<th>Accounting</th>
<th>IT</th>
<th>management and sales and marketing</th>
<th>Secretary</th>
<th>Display and product</th>
<th>What is supposed to next?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>French-Speaking community</strong> (Wallonia and Brussels)</td>
<td>Technique de transition (Technical Secondary education)</td>
<td>Sciences Economiques Appliquées (Applied)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Technique de qualification (Technical Secondary education)</td>
<td>Management : specialization in trade</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Technique de qualification (Technical Secondary education)</td>
<td>Management : specialization in accounting</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Professionnel de qualification (Vocational education)</td>
<td>Vente (Sales)</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Work</td>
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<tr>
<td><strong>Flemish community</strong> (Flanders)</td>
<td>Technisch Secundair Onderwijs (Technical Secondary Education)</td>
<td>Handel (Commerce)</td>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Beroeps Secundair Onderwijs (Vocational education)</td>
<td>Verkoop (Sales)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes/No</td>
<td>Work</td>
</tr>
</tbody>
</table>

(Source: Authors’ compilation of data from [www.onderwijskiezer.be](https://www.onderwijskiezer.be/v2/secundair/index.php) and [www.enseignement.be](http://enseignement.be/index.php?page=25255&navi=298))

Annex 7 CV Template A Flemish applicant – Applications send to companies in Tournai

Pieter Lombaerts

Nationalité: belge
Adresse: Neerstraat 27, 8580 Avelgem
Numéro de téléphone: 0465/50.87.11
Date de naissance: 2/02/1996
Lieu de naissance: Oudenaarde
Permis de conduire B
Adresse e-mail: pieterlombaerts@outlook.com

Expérience professionnelle
Caissier / étalagiste
Delhaize (Oudenaarde)
Juillet 2012 et 2013

Diplôme
Enseignement Professionnel de Qualification, vendeur (troisième degré)
Bernardusscholen 4 (Oudenaarde)
Diplômé en 2014

Connaissances informatiques
Applications bureautiques : Microsoft Word, Office et Powerpoint

Connaissances linguistiques
Néerlandais
Français

Centres d’intérêt
Football (en club)

Note: Adresse, birthplace, place of the student job and school were modified follow the workplace for which was applied. In this case the workplace is Tournai
Annex 8 CV Template A Thomas Boussart, the Walloon fictitious applicant

Thomas Boussart

Nationalité: belge
Adresse: Rue de Mons 44, 7970 Belsei
Numéro du téléphone: (0486) 340 611
Date de naissance: 17/03/1996
Lieu de naissance: Tournai
Permis de conduire B
Adresse e-mail: thomasboussart@hotmail.com

Expérience professionnelle
Caisse / étagiste
Delhaize (Tournai)
Juillet 2012 et 2013

Diplôme
Enseignement Professionnel de Qualification, vendeur (troisième degré)
Institut des Ursulines (Tournai)
Diplômé en 2014

Connaissances informatiques
Applications bureautiques : Microsoft Word, Office et Powerpoint

Connaissances linguistiques
Français
Néerlandais

Centres d'intérêt
Football (en club)

Note: Adress, birthplace, place of the student job and school were modified follow the workplace for which was applied. In this case the workplace is Tournai
Annex 9: CV Template B of Pieter Lombaerts, the Flemish fictitious applicant

CV Pieter Lombaerts

DONNEES PERSONELLES

Neerstraat 27
8580 Avelgem
0465/50.87.71
pieterlombaerts@outlook.com

Né à Oudenaarde le 19 mars 1996
Belge
Permis de conduire B

DIPLOME

Enseignement professionnel de qualification (1er degré), vendeur
Bernardusscholen à Oudenaarde

2008 - 2014

EXPERIENCE PROFESSIONNELLE

Job d’étudiant

- Vendeur à la boulangerie Vandamme à Oudenaarde

08/2012

08/2013

COMPETENCES

Langues

- Néerlandais
- Français

Connaissances Informatiques

- Très bonne connaissance de Microsoft Office

HOBBY

Sport en général et basketball en particulier

Note: Adresse, lieu de naissance, lieu de l’étudiant et de l’école ont été modifiés en fonction de l’employeur pour lequel il a postulé. Dans ce cas, l’employeur est Tournai.
Annex 10: CV template B of Thomas Boussart, the fictitious Walloon applicant

CV Thomas Boussart

DONNEES PERSONELLES
Rue de Mons 44
7770 Beleœil
(0486) 340 611
thomasboussart@hotmail.com

Né à Tournai le 21 février 1996
Belge
Permis de conduire B

Diplôme
Enseignement professionnel de qualification (3e degré), vendeur
Institut des Ursulines Tournai
2008 - 2014

EXPERIENCE PROFESSIONNELLE
Job d'étudiant

- Vendeur à la boulangerie “Le Croissant” à Tournai
08/2012
08/2015

COMPETENCES

Langues
- Français
- Néerlandais

Connaissances informatiques
- Très bonne connaissance de Microsoft Office

HOBBY
Sport en général et basketball en particulier

Note: Address, birthplace, place of the student job and school were modified follow the workplace for which was applied. In this case the workplace is Tournai
Annex 11 Cover letter of template B

Chère Madame/ Cher Monsieur


Si vous avez des questions concernant ma candidature, j’y répandrai volontiers lors d’un entretien.

Dans l’attente, je vous prie d’agréer, Madame, Monsieur, mes sincères salutations.

Bien à vous,

[First Name + Name]

(Note: First Name + Name= Pieter Lombaerts or Thomas Boussart)
Chère Madame, Cher Monsieur,

Je suis très intéressé par la fonction de [jobname ] que vous annoncez sur le site web du Forem.

Je viens de finir des études de vendeur (enseignement professionnel de qualification). Mon expérience professionnelle se limite à des jobs de vacances, mais je suis très motivé pour occuper la fonction que vous proposez.

J'attends de vos nouvelles et j'espère que vous m'inviterez à un entretien.

Avec mes sincères salutations,

[First Name + Name]

(Note: First Name + Name= Pieter Lombaerts or Thomas Boussart)
Annex 13 Sensu stricto positive callback ratio follow several job characteristics: language ability, teamwork, customer contact and distance between residence and workplace

<table>
<thead>
<tr>
<th>Applications</th>
<th>Number of vacancies</th>
<th>Positive callback for neither of both applicants (i)</th>
<th>Positive callback for both applicants (ii)</th>
<th>Positive callback for the Walloon applicant only (iii)</th>
<th>Positive callback for the Flemish applicant only (iv)</th>
<th>Positive callback ratio</th>
<th>t</th>
<th>Upper &amp; lower bound 95% confidence interval positive callback ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>87</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0,57**</td>
<td>2,011</td>
<td>[0,36 ; 0,78]</td>
</tr>
<tr>
<td><strong>Job characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language ability is a component</td>
<td>94</td>
<td>87</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0,57*</td>
<td>1,75</td>
<td>[0,33 ; 0,81]</td>
</tr>
<tr>
<td>Language ability is not a component</td>
<td>191</td>
<td>189</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0,5</td>
<td>1,00</td>
<td>[-0,19 ; 1,19]</td>
</tr>
<tr>
<td>With customer contact</td>
<td>186</td>
<td>178</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>0,63*</td>
<td>1,74</td>
<td>[0,38 ; 0,98]</td>
</tr>
<tr>
<td>Without customer contact</td>
<td>99</td>
<td>98</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1,00</td>
<td>nd</td>
</tr>
<tr>
<td>Teamwork</td>
<td>28</td>
<td>26</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0,5</td>
<td>1,00</td>
<td>[-0,19 ; 1,19]</td>
</tr>
<tr>
<td>Without teamwork</td>
<td>257</td>
<td>250</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0,57*</td>
<td>1,74</td>
<td>[0,33 ; 0,81]</td>
</tr>
<tr>
<td>Distance from both candidates is less than 30 km</td>
<td>190</td>
<td>183</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0,57*</td>
<td>1,74</td>
<td>[0,32 ; 0,81]</td>
</tr>
<tr>
<td>Distance from both candidates is not less than 30 km</td>
<td>95</td>
<td>93</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0,5</td>
<td>1,00</td>
<td>[0,19 ; 1,19]</td>
</tr>
<tr>
<td>Distance for both candidates is less than 30 min by car</td>
<td>168</td>
<td>165</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0,67</td>
<td>1,00</td>
<td>[-0,09 ; 1,42]</td>
</tr>
<tr>
<td>Distance for both candidates is not less than 30 min by car</td>
<td>117</td>
<td>111</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0,5*</td>
<td>1,75</td>
<td>[0,27 ; 0,73]</td>
</tr>
</tbody>
</table>

(Source: Author’s calculations based on own data)
Annex 14 Personalized CV correction by employment advisor FOREM (Own first and last name)

David VANRAES
Rue Catrice, 12
1300 Wavre
0485/340 611
vanraesdavid@gmail.com

Plan d’aide à l’embauche?
Véhicule personnel?
Permis B
Né le 21 février 1996
Belge

FONCTION POUR LAQUELLE ON POSTULE?
EXEMPLE: VENDEUR
PETITS MOTS ACCROCHEURS! : flexible, ponctuel, ... (vous pouvez vous rendre rapidement au travail)

COMPÉTENCES faire un résumé des compétences que l’on possède, pour le poste action à l’infini

- stocker et ranger des marchandises en réserve et arranger les produits
- rencontrer le client, évaluer ses besoins et le conseiller sur les services et les produits
- contrôler la conservation, l’état des produits périssables, enlever les produits impropre
- surveiller l’état des stocks, évaluer les besoins en approvisionnement, passer les commandes
- entretenir le magasin, le matériel et le plan de travail
- encaisser les commandes
- livrer les commandes aux clients
- recevoir les marchandises, les produits et veiller à la conformité de la livraison
- contrôler le fonds de caisse et procéder au comptage à la fermeture de la caisse

EXPÉRIENCES PROFESSIONNELLES

- Vendeur à la boulangerie “Le Croissant” à Louvain-La-Neuve 08/2013
- Vendeur à la boulangerie “Le Croissant” à Louvain-La-Neuve 08/2012

FORMATION

Diplôme ou certificat?
- Enseignement professionnel de qualification (3e degré), vendeur
  Institut de la Providence Wavre 2008 - 2014

Connaissances informatiques

- Très bonnes connaissances de Microsoft Office à détailler: Programmes et niveau

Connaissances linguistiques

- Français langue maternelle?
- Néerlandais niveau?

HOBBY
Annex 15 Email with personalized CV Correction by employment advisor VDAB (fictive first and last name)

Dag Patrick,

Momenteel zou ik graag mijn cv willen laten controleren. Ik heb twee mogelijk cv's in bijlage gezet. Ik zou willen solliciteren voor verkoper.

Zou het mogelijk zijn mijn sv's te controleren zodat ik zo best mogelijk kan solliciteren.

Met vriendelijke groeten

2 Attachments

Dag Vito

Anja hier. Mijn collega Patrick is even afwezig, maar zal volgende week weer present zijn en kan dan jouw cv’s verder beoordelen. In afwachting van zijn terugkeer heb ik al volgende tips voor je:

- Ik stel voor dat we eerst de inhoud en structuur van je cv op punt zetten. Daarna zullen we ons buigen over de lay-out, is dit ook voor jou?
- Wat maat je gedaan sinds je afgestudeerd bent? Nu heb je een gat van bijna twee jaar in je cv. Dat komt niet zo goed over. Graag dus een woordje uteig hierover.
- Noteer je in je cv nog je vaardigheden en competenties als verkoper? Ben je iemand die commerciëel is, die graag en goed met klanten overweg kan? Die informatie mag niet ontbreken. Meer hierover kan je opzoeken via onze beroepsrichtlijn (trefwoord: verkoop) daarna kan je kiezen uit een subcategorie).
- Verkoop is een ruim beeld. Kan je wat preciezer zeggen? Heb je interesse in het verkopen van voeding, kleding, telecom, gereedschap... Je mag altijd een vacature meesturen waarin je interesse hebt. Samen met je sollicitatiebrief of -mail. Dan kunnen we je gerichter advies geven.

Kan je hier voorlopig verder mee?

Vragen, opmerkingen en een aangepaste versie van je cv zijn altijd welkom!

Met vriendelijke groeten

Anja

online sollicitatiecoach
Annex 16 Overview of applications and callback rates by periods of 6 months under sensu stricto and sensu lato

<table>
<thead>
<tr>
<th>Period</th>
<th># vacancies per period</th>
<th>Invitation for neither of both candidates (i)</th>
<th>Invitation for both candidates (ii)</th>
<th>Invitation for the Walloon candidate only (iii)</th>
<th>Invitation for the Flemish candidate only (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensu Stricto</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period 1</td>
<td>230</td>
<td>190</td>
<td>5</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>(December 2014 till May 2015)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period 2</td>
<td>55</td>
<td>55</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(June 2015 till November 2015)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sensu Lato</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period 1</td>
<td>230</td>
<td>211</td>
<td>15</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>(December 2014 till May 2015)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period 2</td>
<td>55</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>(June 2015 till November 2015)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Sensu stricto and lato positive callback designates the strict and broad sense of positive callback respectively. Column (i) shows the number of applications for which both applicants didn’t receive positive callback. Column (ii) shows the number of applications for which both applicants received positive callback. Column (iii) and (iv) show respectively the number of applications for which only the Walloon or Flemish received positive callback. The positive callback rate equals the amount of positive callbacks for an applicant divided by the total number of applications.
### Annex 17 Sensu stricto & lato positive callback by occupation types

<table>
<thead>
<tr>
<th></th>
<th>Number of vacancies</th>
<th>Positive callbacks for neither of both candidates</th>
<th>Positive callbacks for both candidates invitation</th>
<th>Positive callbacks for the Walloon candidate only</th>
<th>Positive callbacks for the Flemish candidate only</th>
<th>Callback rate Flemish applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensu Stricto</strong></td>
<td></td>
<td>(i)</td>
<td>(ii)</td>
<td>(iii)</td>
<td>(iv)</td>
<td></td>
</tr>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>280</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>3,16%</td>
</tr>
<tr>
<td>Cleaning</td>
<td>66</td>
<td>66</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0,00%</td>
</tr>
<tr>
<td>Management &amp; administration</td>
<td>19</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5,26%</td>
</tr>
<tr>
<td>Manual work</td>
<td>45</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0,00%</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>34</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5,71%</td>
</tr>
<tr>
<td>Sales</td>
<td>94</td>
<td>90</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>6,38%</td>
</tr>
<tr>
<td>Horeca</td>
<td>26</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0,00%</td>
</tr>
<tr>
<td><strong>Sensu Lato</strong></td>
<td></td>
<td>(i)</td>
<td>(ii)</td>
<td>(iii)</td>
<td>(iv)</td>
<td></td>
</tr>
<tr>
<td>All vacancies</td>
<td>285</td>
<td>267</td>
<td>18</td>
<td>0</td>
<td>6</td>
<td>8,42%</td>
</tr>
<tr>
<td>Cleaning</td>
<td>66</td>
<td>65</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1,52%</td>
</tr>
<tr>
<td>Management &amp; administration</td>
<td>19</td>
<td>18</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5,26%</td>
</tr>
<tr>
<td>Manual work</td>
<td>45</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4,44%</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>33</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>8,57%</td>
</tr>
<tr>
<td>Sales</td>
<td>94</td>
<td>81</td>
<td>13</td>
<td>0</td>
<td>3</td>
<td>17,02%</td>
</tr>
<tr>
<td>Horeca</td>
<td>26</td>
<td>25</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3,85%</td>
</tr>
</tbody>
</table>
### Annex 18 Sensu stricto and lato callback rate for female dominated jobs

<table>
<thead>
<tr>
<th>Vacancies</th>
<th>Number of vacancies</th>
<th>Invitation for neither of both candidates (i)</th>
<th>Invitation for both candidates (ii)</th>
<th>Invitation for the Walloon candidate only (iii)</th>
<th>Invitation for the Flemish candidate only (iv)</th>
<th>Callback rate Flemish applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro-female jobs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensu stricto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female dominated jobs</td>
<td>95</td>
<td>94</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1,05%</td>
</tr>
<tr>
<td></td>
<td>199</td>
<td>182</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>4,02%</td>
</tr>
<tr>
<td>Not female dominated jobs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensu lato</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female dominated jobs</td>
<td>95</td>
<td>92</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3,16%</td>
</tr>
<tr>
<td></td>
<td>199</td>
<td>169</td>
<td>16</td>
<td>0</td>
<td>5</td>
<td>10,55%</td>
</tr>
<tr>
<td>No female dominated jobs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Author’s calculations)
Annex 19 Application dates of vacancies for which only the Flemish applicant received sensu lato positive callback

<table>
<thead>
<tr>
<th>Number of vacancy in database</th>
<th>Province</th>
<th>Application date Flemish applicant</th>
<th>Application date Walloon applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>Liège</td>
<td>2/04/2015</td>
<td>1/04/2015</td>
</tr>
<tr>
<td>113</td>
<td></td>
<td>30/04/2015</td>
<td>29/04/2015</td>
</tr>
<tr>
<td>166</td>
<td>Hainaut</td>
<td>9/02/15</td>
<td>8/02/2015</td>
</tr>
<tr>
<td>195</td>
<td></td>
<td>14/03/2015</td>
<td>13/03/15</td>
</tr>
<tr>
<td>247</td>
<td></td>
<td>9/07/15</td>
<td>8/07/15</td>
</tr>
<tr>
<td>281</td>
<td></td>
<td>18/11/15</td>
<td>18/11/15</td>
</tr>
</tbody>
</table>

(Source: Author’s compilation based on author’s data)

Annex 20 Application dates of vacancies for which only the Flemish applicant received sensu stricto positive callback

<table>
<thead>
<tr>
<th>Number of vacancy in database</th>
<th>Province</th>
<th>Application date Flemish applicant</th>
<th>Application date Walloon applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>127</td>
<td>Liège</td>
<td>14/03/2015</td>
<td>13/03/15</td>
</tr>
<tr>
<td>166</td>
<td>Hainaut</td>
<td>9/02/15</td>
<td>8/02/2015</td>
</tr>
<tr>
<td>195</td>
<td></td>
<td>14/03/2015</td>
<td>13/03/15</td>
</tr>
<tr>
<td>200</td>
<td></td>
<td>19/03/2015</td>
<td>20/03/2015</td>
</tr>
</tbody>
</table>

(Source: Author’s compilation based on author’s data)