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# Age Discrimination in the UK Labour Market. Does Race Moderate Ageism?

An Experimental Investigation

## Abstract

Governments encourage people to work longer in order that pension promises are sustainable as populations age. This approach presupposes that older workers are welcome in the market. This study undertakes a correspondence test to investigate whether ageism is prevalent in the UK at the initial stage of the hiring process. This study adds to the literature by investigating whether race can moderate the relationship between age and labour market outcomes. The results suggest that older people are penalized in the labour market. They have lower access to vacancies and sorting in lower-paid jobs. A minority racial background exacerbates both penalties. These new results call for anti-ageism and anti-racial policy actions in the workplace.

**Keywords:** Ageism, Race, Access to Occupations, Wages, Discrimination

**JEL Classification:** C93, J14

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Note: The data appendix, codes and original Stata tables have been provided to the Editors. No potential conflict of interest is reported by the authors.

## **I. Introduction**

This study uses a correspondence test to examine whether older people have worse access to vacancies (i.e. invitations to interviews) in the UK labour market than their younger counterparts. This is the first experimental study that investigates whether race can moderate the relationship between age and labour market outcomes. In addition, this study contributes to the literature by examining wage sorting due to age. We examine whether older people are sorted in lower paid vacancies, as well as whether race exacerbates negative wage sorting. Previous field experiments have not collected the wage data to examine this issue. Surveys suggest that efforts to increase participation rates amongst older people may be undermined by age discrimination (Age 2011). If firms have tendencies towards discrimination (Becker 1957) and can distinguish older workers from younger, labour market outcomes may be biased in terms of occupational access constraints and wage discrimination. Furthermore, if there are systematic differences in the productivities of older and younger people, this may create permanent differentials in occupational access and wages (Arrow 1973). Given the increasing importance of population aging and its effects on workforces across the Western world, the results of this study should be of interest to social planners, trade unions and firms. In the following sections, we describe our experiment, present the results and finally discuss the results and offer conclusions.

## **II. The experiment**

We collected data from two simultaneous experiments between 2012 and 2015 in the UK. In Experiment 1, we sent 894 pairs of matched applications to firms with a variety of vacancies in white-collar occupations (office workers), pink-collar occupations (restaurant workers, sales) and blue-collar occupations (factory workers). One application was from a fictitious 28-year-old White British male, the other from a fictitious 50-year-old White British male. Similarly, in Experiment 2, we sent 898 pairs of matched applications from applicants of Black British background. In this study, as in Drydakis's (2009), if a vacancy advertised the job's wage, this was recorded, allowing

us to examine whether age and ethnicity could affect wage sorting. We focused on low-skilled jobs in the private sector. It was crucial to choose vacancies where it was realistic to expect that applications would come from individuals 22 years apart in age, so jobs with a career hierarchy (i.e. managers, directors) were excluded. In the applications we sent, the 28-year-old applicant had 9 years of work experience in the relevant occupation, whilst the 50-year-old applicant had 28 years of experience. In each experiment, firms preferring older applicants might be interpreted as a rational response to older applicants' greater experience rather than bias against younger applicants. However, preferring younger applicants suggests a significant bias against older applicants, who have 19 years more experience (Riach and Rich 2010). The applications contained information about the applicant's age, work experience and ethnicity. They included the applicant's contact information (email), date of birth, gender (male), ethnicity (White British in Experiment 1 or Black British in Experiment 2), marital status (married with one child), previous employment and education (both applicants had completed school to Year 11). Importantly, the postal addresses were in comparable socio-economic districts, approximately 1 mile apart in each region. In any one posting, half the inquiries emanated from the older applicants and half from the younger. We conducted pretests to ensure that the applications forming a pair would not elicit preferences. As in most field experiments, we controlled for the older applicant's mental and physical capacities (Neumark, Burn, and Button 2015b; Riach and Rich 2010) and sought to minimize the effects of older workers being stereotyped as less active, less motivated and less adaptable than younger workers (Ng and Feldman 2012). All applicants were currently in employment and so had current experience in some form of work. Older applicants were engaged in physical activity (cycling, mountain biking), and demonstrated mental flexibility by their interest in learning foreign languages (Spanish) and computers.

### **III. Results and discussion**

Table 1 presents our results on invitations to an interview. Panel I presents the results for White British applicants from Experiment 1. Panel II presents the results for Black British appli-

cants from Experiment 2. In Panel III, we pool the whole sample simultaneously (i.e. Experiments 1 and 2). In all cases, we have employed probit models and report marginal effects. Also, in all panels we have controlled for occupational heterogeneity. In Panel I, we find that older White British applicants face a 21.2 percentage points lower chance of receiving an invitation for interview compared to younger White British applicants. In Panel II, the estimates suggest that older Black British receive a 24 percentage points lower chance of receiving an invitation for interview than younger Black British applicants. In Panel III, the interaction effect between older applicants and Black British applicants (older applicants  $\times$  Black British applicants) reveals that older Black British applicants face a 9.4 percentage points lower chance of receiving an invitation for interview than older White British applicants.

These results show that older applicants, whether White or Black, face reduced access to interviews relative to their younger counterparts. This is consistent with the findings of field experiments into ageism in the hiring process in other countries, such as in the US (Lahey 2008) and in Sweden (Ahmed, Anderssona, and Hammarstedt 2012). However, our study also finds that older Black British applicants are worse off, in terms of vacancy access, than older White British applicants. That is, we found that applicants of minority race face higher levels of ageism than those from the majority race. The effects of age on labour market outcomes are not neutral to applicants' other characteristics such as race or gender (Neumark et al. 2015a). Table 2 presents estimates of the logged gross annual wages for vacancies where applicants received an invitation to interview. In Panel I, it is observed that older White British applicants are invited for interviews for vacancies that offer 9.9 percentage points lower wages compared to younger White British applicants. Panel II suggests that older Black British applicants are invited for interviews for vacancies that offer 15.7 percentage points lower wages compared to younger Black British applicants. In Panel III, the interaction effect between older applicants and Black British applicants shows that older Black British applicants are invited for interviews from firms that offer 5.8 percentage points lower wages than to older White British applicants. These results suggest that, irrespective of race, older applicants have

worse access to higher paid vacancies than younger applicants. Furthermore, relative to older White British applicants, older Black British applicants are invited to interview less often for higher paid vacancies. Our results suggest that older people are sorted into lower-paid vacancies and that a minority racial background compounds this negative wage sorting.

#### **IV. Conclusions**

Our results suggest that ageism plays a significant role in the UK labour market. We find that older people must apply to more vacancies than the young to obtain an interview. Furthermore, older workers are invited to interview for lower paid jobs than the young, potentially affecting their standard of living. Our data were collected after the Equality Act 2010 was enacted, which legislated against most forms of age discrimination in the workplace. That we still find compelling evidence of ageism suggests that legislation has not been sufficient to eliminate age discrimination. In this study, because we have controlled for the older applicants' mental and physical capacities, simple prejudice against people aged over 50 is more likely to be the reason for ageism (Becker, 1957) than stereotypes regarding older people's productivity (Arrow 1973). Age-friendly environments and institutional procedures are needed to minimize ageism and bias against older workers in the labour market (Age 2011). Our results also suggest a need for further anti-racial discrimination policies. Since the presence of a minority racial background can exacerbate ageism, establishment of equal opportunities in the labour market remains an important task for policy makers. Whilst we present evidence of ageism in the UK labour market, further work is needed to fully understand its nature. Especially, how applicant characteristics other than race might moderate ageism. Whether ageism is less severe for better-educated people and for vacancies/occupations where human capital is needed may be discerned through additional research. Determining whether the existence of equal opportunity and human resources policies, trade unions and anti-ageism campaigns are effective in reducing ageism in the labour market should offer important indicators for appropriate policy responses.

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**Table 1. Probit Estimates (Marginal Effects); Access to Vacancies**

	Panel I White-British applicants	Panel II Black-British Applicants	Panel III White-British and Black-British applicants
Older applicants <sup>a</sup>	-0.212 (0.019)***	-0.240 (0.016)***	-0.182 (0.017)***
White-collar jobs <sup>b</sup>	0.179 (0.036)***	0.053 (0.027)**	0.114 (0.023)***
Pink-collar jobs <sup>b</sup>	0.093 (0.029)***	0.066 (0.023)***	0.079 (0.018)***
Black-British applicants <sup>c</sup>	-	-	-0.044 (0.006)***
Older applicants x Black-British applicants	-	-	-0.094 (0.022)***
Log likelihood	-931.253	-715.520	-1651.031
LR chi <sup>2</sup>	137.34	208.66	369.65
Prob> chi <sup>2</sup>	0.000	0.000	0.000
Pseudo R <sup>2</sup>	0.068	0.127	0.100
Observations	1,788	1,796	3,584

Notes: <sup>(a)</sup> The reference category is younger applicants. <sup>(b)</sup> The reference category is blue-collar jobs. <sup>(c)</sup> The reference category is White-British applicants. Standard errors are in parenthesis. (\*\*\*) Statistically significant at the 1% level. (\*\*) Statistically significant at the 5% level.



**Table 2. OLS Wage (ln) Estimates**

	Panel I White-British applicants	Panel II Black-British Applicants	Panel III White-British and Black-British applicants
Older applicants <sup>a</sup>	-0.099 (0.011)***	-0.157 (0.014)***	-0.100 (0.010)***
White-collar jobs <sup>b</sup>	0.210 (0.018)***	0.244 (0.015)***	0.222 (0.012)***
Pink-collar jobs <sup>b</sup>	0.103 (0.017)***	0.079 (0.013)***	0.092 (0.011)***
Black-British applicants <sup>c</sup>	-	-	-0.060 (0.008)***
Older applicants x Black-British applicants	-	-	-0.058 (0.020)***
Root MSE	0.097	0.070	0.088
F	73.98	166.99	128.90
Prob> F	0.000	0.000	0.000
R <sup>2</sup>	0.398	0.689	0.533
Adj R <sup>2</sup>	0.393	0.685	0.529
Observations	339	230	569

Notes: See Table 1.