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To cite this version:

Claire L. Adida, David D. Laitin, Marie-Anne Valfort. Identifying barriers to Muslim integration in France. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107 (52), pp.384-390. 10.1073/pnas.1015550107 . halshs-00618060

HAL Id: halshs-00618060

https://shs.hal.science/halshs-00618060v1

Submitted on 14 Nov 2011

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Identifying barriers to Muslim integration in France

Claire L. Adida[a], David D. Laitin[b,1], and Marie-Anne Valfort[c]

[a]Department of Political Science, University of California at San Diego, La Jolla, CA 92093-0521; [b]Department of Political Science, Stanford University, Stanford, CA 94305-6044; and [c]Department of Economics, Paris I Panthéon Sorbonne University, 75647 Paris Cédex 13, France

Contributed by David D. Laitin, October 20, 2010 (sent for review May 21, 2010)

This contribution is part of the special series of Inaugural Articles by members of the National Academy of Sciences elected in 2007.

Is there a Muslim disadvantage in economic integration for second-generation immigrants to Europe? Previous research has failed to isolate the effect that religion may have on an immigrant family's labor market opportunities because other factors, such as country of origin or race, confound the result. This paper uses a correspondence test in the French labor market to identify and measure this religious effect. The results confirm that in the French labor market, anti-Muslim discrimination exists: a Muslim candidate is 2.5 times less likely to receive a job interview callback than is his or her Christian counterpart. A high-n survey reveals, consistent with expectations from the correspondence test, that second-generation Muslim households in France have lower income compared with matched Christian households. The paper thereby contributes to both substantive debates on the Muslim experience in Europe and methodological debates on how to measure discrimination. Following the National Academy of Sciences' 2001 recommendations on combining a variety of methodologies and applying them to real-world situations, this research identifies, measures, and infers consequences of discrimination based on religious affiliation, controlling for potentially confounding factors, such as race and country of origin.

Social and political relations between Europe and the Muslim world are fractious (1, 2). Attacks in Madrid (March 2004) and London (July 2005) were perpetrated by Muslim radicals. Political parties in Europe have mobilized opinion against a Muslim threat.[a] Relations between the countries and societies of the European Union and the Muslim world have become politically consequential on a number of dimensions: foreign policy in regard to the Middle East, membership into the European Union, and the vast migration of Muslim populations into European Union states.

Surprisingly, several recent studies have found that there are no special problems for Muslims in Europe. The Pew Global Attitudes Project poll of 2006 established that "while there are some signs of tension between Europe's majority populations and its Muslim minorities, Muslims there do not generally believe that most Europeans are hostile toward people of their faith" (3).[b] Furthermore, "[s]ubstantial majorities of Muslims living in the European countries surveyed say that [in the 2 years after bombings in Spain and London, and the Cartoon Crisis in Denmark (4)],[c] they have not had any personally bad experience attributable to their race, ethnicity, or religion" (3, 5).[d] More recently, the 2009 Open Society Institute multicountry study of Muslim and non-Muslim attitudes toward immigration and social cohesion reveals that Muslim respondents are as likely as non-Muslim respondents to report that people in their neighborhood are willing to help each other; only 10% of Muslim respondents reported discrimination by the police, and a similar proportion of Muslims (29.2%) and non-Muslims (31.1%) reported trust in the government (6).[e]

At the same time, European states are defined by their historic nationalities, all of them in the Christian tradition, and are seen as having a special problem with Islam going back to the fall of Constantinople to the Ottomans and the reconquest of Spain in the 15th century. Thus, throughout the continent, there is a myth of a "Christian Europe" that is maintained despite its virtually complete secularization in the past century. It manifests itself in recent political events as well as in individual attitudes and perceptions of discrimination. Suspicions run high in the debate over the application of Turkey into the European Union (as opposed to Bulgaria) (7).[f] Local issues, such as permits to build minarets in European cities or prohibitions on women wearing the burqa, transmogrify into continental *causes célèbres*. The 2009 Open Society Institute study paints a deteriorating picture of religious and racial discrimination: 55.8% of Muslim respondents and 43% of non-Muslim respondents, representing a plurality, claim that there is more racial prejudice today than there was 5 y ago[g]; 68.7% of Muslim respondents and 55.9% of non-Muslim respondents make that claim with regard to religious prejudice, and more than 90% of both Muslim and non-Muslim respondents agree that Muslims are the ones experiencing this religious prejudice (6).

Thus, conventional wisdom points both to a cosmopolitan Europe open to Muslim immigrants and a closed Europe suspicious of these immigrants. Despite the sound and fury, the question of whether there is a special Muslim problem for Europe in general remains unclear. What is absent is a data-driven answer that can adequately identify and measure Muslims' failure/success in economic integration into Europe.

The National Academies' National Research Council's Committee on National Statistics identified this problem on a broader scale when it convened a panel of scholars in 2001 to provide a comprehensive review of the major methods used to measure racial discrimination, including statistical analysis of observational data, laboratory experiments, and field experiments (8). Although the panel argued that no one method can solve all the troubling inferential problems for this notoriously complex issue, the difficulties of relying on observational data, including omitted

Author contributions: D.D.L. designed research; C.L.A., D.D.L., and M.-A.V. performed research; C.L.A., D.D.L., and M.-A.V. analyzed data; and C.L.A., D.D.L., and M.-A.V. wrote the paper.

The authors declare no conflict of interest.

[1]To whom correspondence should be addressed. E-mail: dlaitin@stanford.edu.

This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10.1073/pnas.1015550107/-/DCSupplemental.

[a]For example, the Front National in France, which runs an anti-European Union, antiglobalization, and anti-immigration platform, placed second in the presidential elections of 2002 and showed renewed strength in the regional elections of 2010.

[b]The Pew Research Center for the People and the Press is a public opinion research organization that studies attitudes toward politics, the press, and public policy issues. This and subsequent quotations can be found at the Pew Global Attitudes Project Web site (3).

[c]Cartoons in a Danish newspaper that depicted the prophet in an unflattering manner set off a wave of protests throughout the Islamic world as well as crystallizing anti-Muslim feelings, to the benefit of a right-wing party (the Danish People's Party) that evokes anti-Muslim sentiments.

[d]Work by Laurence and Vaisse (5) in France reports similar results. Muslim immigrants, they find, are not all that different from the historic nationalities of European states. In general, they find that the degree of anti-Islamism in police-reported incidents in France is much lower than anti-Semitic ones, with a much larger Muslim population in France. Those who are Islamophobic tend also to be anti-Semitic and antiimmigrant in general. They conclude, at least for France, that there seems to be no specific anti-Islamic public feeling.

[e]This study (6) defines a Muslim as any respondent who self-identifies as Muslim, including Muslims who view themselves in a cultural rather than religious context. Similarly, non-Muslims are respondents who do not define themselves as belonging to the Islamic faith.

[f]The *New York Times* reports that the European Union has officially pictured Europe on its Euro currency, including (Christian) Belarus, Moldova, and parts of Russia but not Turkey, which officials admit was stricken from the map (7).

[g]For other non-Muslim responses on racial prejudice: 34.4% claimed that racial prejudice is about the same today as it was 5 y ago, 15% claimed that racial prejudice is less today than it was 5 y ago, and 7.6% do not know.

variable and sample selection bias,[h] received special attention, perhaps because at the time of writing, reliance on observational data was thought to be used most often. Laboratory studies received a number of important critiques as well, ranging from the limits of external validity (the inability to generalize findings beyond the laboratory context) to Hawthorne effects (whereby subjects tend to behave differently under a microscope).

The mirror problems of observational and laboratory studies led the panel to give considerable attention to field experiments, such as audit studies, which were praised as "an important and useful means of measuring discrimination in various domains" (8).[i] These studies have identified racial discrimination in the housing market, in car sale negotiations, and in preapplication behavior by lenders, among other economic transactions; yet they can draw only limited inferences about racial discrimination. Because it is not feasible to randomize a tester as to whether he or she presents himself or herself as white or black, it is not possible to claim confidently that if tester "A," who was black, were white, he or she would have done better.

The panel therefore finds great value in combining features of laboratory and audit studies. It reports on Bertrand and Mullainathan's classic curriculum vitae (CV) experiment, today called a "correspondence test," in which the researchers created two identical resumés stratified by low- and high-skill levels, and assigned a white-sounding name to a random half of the resumés and a black-sounding name to the other random half. The experiment generated striking results. Applicants with white-sounding names received 50% more callbacks than applicants with black-sounding names. Moreover, the return on quality of CV (i.e., reward for high-skill level) was high for whites but nonexistent for blacks. The randomization of race assignment across otherwise identical resumés made it possible to overcome the missing counterfactual and to draw inferences on the effect of race. Because of the relative methodological success of this mixture of experiment and audit, the report calls for greater research investment in the replication of laboratory experiments "in real-world settings with real-world data" (8).

This paper pushes the agenda set by the National Academy of Science panel report by addressing the issue of religious discrimination in Europe. It presents data on the relative success of a matched set of second-generation Muslim and non-Muslim immigrants in France to see if, conditioned on human capital, they face equal opportunities in the labor market, our criterion for economic integration. By doing so, it accomplishes two important goals. First, it contributes to a salient topical debate in a Europe struggling to cope with an era of high religious identification and massive Muslim immigration.[j] Second, it addresses and resolves the special methodological challenges involved in measuring religious discrimination. Indeed, identifying religious discrimination has inferential problems quite different from race, inasmuch as the signal of one's religion can be manipulated in front of an employer or a real-estate agent in ways that are far more difficult, on average, for race. A bigger problem in identifying a religious impact on employment opportunity is that of the confound that exists between religion and country of origin. If people from Turkey are most likely to be of Muslim heritage, how can we tell if labor market discrimination in Germany is attributable to suspicion of Turks or religious prejudice? Similarly, how would we know if labor market discrimination in the United Kingdom is attributable to bias against South Asians (from India, Pakistan, and Bangladesh) or Muslims? In France, how might we differentiate between prejudice against North Africans (Maghrebis) and prejudice against Muslims?

This paper introduces a solution to such previously intractable measurement problems. The resulting measure, if valid, would tell us if for Muslim immigrants and their descendants in country X, economic integration faces higher barriers than if everything about these migrants were the same except for their religion. Using a correspondence test in the French labor market and a matching strategy that compares the relative success of two identical candidates who differ only in their religious affiliation, this paper identifies significant anti-Muslim discrimination, controlling for a factor (i.e., country of origin) that has confounded results in previous work. Its principal finding is that, all other things being equal, a Muslim candidate is 2.5 times less likely to obtain a job interview than is his or her Christian counterpart. A high-n survey of immigrants selected via the same matching strategy (e.g., immigrants from the same ethnic group but divided by religion) provides evidence for a substantial income effect consistent with the expectations derived from the correspondence test.

Previous Research on Employment Discrimination in France Among Workers from Immigrant Families

Correspondence testing allows researchers to measure labor market discrimination based on specific characteristics, such as gender, age, race, or religion. A wide range of correspondence testing has been conducted beyond the United States, starting with the experiment of Jowell and Prescott-Clarke (9), which tested whether applicants from Asian backgrounds were discriminated against in the UK labor market. To our knowledge, four of these studies focus on discrimination against immigrants in the French labor market (10–13).[k] These studies compare the response rate received by a CV with a Maghrebi-sounding first and last name with the response rate received by a CV with a French-sounding first and last name, with all other characteristics being equal across these CVs. Applicants from a Maghrebi background were found to be strongly discriminated against in the French labor market compared with those from an "authentic" French background. For instance, Duguet et al. (11) compute that for every 100 positive responses for the authentic French candidate, the Moroccan candidate received only 35, with the difference statistically significant at the 99% confidence level.

Although these studies reveal substantial discrimination against applicants of Maghrebi background, they do not allow us to isolate the source of this discrimination. Two confounding factors are at stake: do employers discriminate against Maghrebis or against Muslims?

The difficulties in identifying a religious effect as demonstrated in the CV experiments performed so far are not easily resolved, and this is all the more so in surveys. Data on Muslims in France are hard to get. A 1978 law set prohibitions on the collection of data on the racial, religious, or ethnic identity of its citizens, creating challenges for demographic research. For instance, in a leading sociological study of the economic success of different immigrant groups, researchers could not distinguish the children of Algerian migrants into France from the children of the *pieds noirs*, those of European ancestry who left after Algerian independence in 1962 (14). Although the law was partially relaxed in 2007, this type of data collection has remained stringently limited (15–17).[l]

Equally important for the problem of statistical analysis, those available mass surveys exempt from state oversight rarely (with the Pew Global Attitudes Project poll being the partial excep-

[h]Omitted variable bias occurs when a correlation observed between two variables is actually driven by each variable's correlation with a third omitted variable. Sample selection bias occurs when the experimenter chooses a nonrandom set of observations (a subset of the data is systematically excluded) for statistical analysis.

[i]Audit studies measure discrimination directly via experimental fieldwork (i.e., by introducing an experiment into a real-world context).

[j]"There are estimated to be 15–20 million Muslims living in the E.U.", nearly all of them from post-World War II waves of migration (6).

[k]Publications by Foroni (12) and Cédiey et al. (13) are products of ISM-CORUM, a nongovernmental organization that provides services to and conducts research on French immigrants. The experiment presented in this paper was administered by ISM-CORUM, under the scientific direction of Eric Cédiey and David Laitin (http://www.ismcorum.org/).

[l]Under Article 8 of the French Data Protection and Liberties Act (*Loi informatique et libertés*) of 1978, the Commission nationale de l'informatique et des libertés (CNIL) was created as an independent administrative state authority to ensure that outside of the national statistics agency [Institut National de la Statistique et des Etudes Economiques (Insee)], "personal data revealing directly or indirectly the racial or ethnic origin of individuals" could not be processed [by government personnel or on government contract] without consent. More information on data constraints in France can be found on the CNIL Web page (15). In 2009, the Minister of Diversity and Equality of Opportunity, Yazid Sabeg, with the full support of the president, adopted a different tack on the collection of data on the ethnic and religious self-designation of French citizens, which may prove to be a major breakthrough in future sociological analysis of the population. A discussion of the vigorous debate that ensued was published (16). The Héran report (17) was commissioned by the Minister.

tion) include enough Muslims to allow for good data analysis. For example, the World Values Survey included in its latest wave for France only 47 reported Muslims out of a sample of 1,001. Given that there are an estimated 6.3% Muslims in France, this survey is hardly representative of the Muslim population (18).[m]

The real killer for identifying a Muslim effect is that most Muslim immigrants to each of the major European states come from a single country or world region. In Germany, nearly all Muslims are from Anatolia; in the United Kingdom, the same is the case with South Asians; and in France, nearly all Muslims are from the Maghreb. In each of these cases, it is nearly impossible to determine conclusively whether any additional problems that these immigrant populations and their descendants have had in economic mobility beyond the problems faced by non-Muslim immigrant families are attributable to the fact that they are Muslim. For example, nearly all immigrants to France from Portugal are Catholic, and nearly all immigrants to France from Algeria are Muslim: once they control for homeland, statistical models cannot distinguish a religion from a country effect on outcomes. To look at the inferential problem another way, any special problems in economic advance faced by children of North African immigrants to France may be attributable to their Muslim religion, the fact that they were a colonized people from a geographic area where the major state fought an insurgency against French imperialism, or some aspects of North African life distinct from Islam (e.g., language, educational systems, history of authoritarian political rule).

To illustrate one aspect of the inferential problem, we draw from a large-n survey of 12,010 randomly selected households with an immigrant then (2002–2003) living in France, one of the few large-n surveys in France in which a self-reported question on religion was posed (19).[n] The survey also contains key information on the age, gender, education, region, country of origin, and income of immigrant respondents. These data were collected to study the retirement decisions of immigrants, but they allow us to illustrate the problem of trying to infer the effects of religion on income when there is a high correlation between homeland and religion.

Consider Fig. 1, which analyzes these data, where models 1, 2, and 3 illustrate the problem (the three statistical models are described in the legend for Fig. 1). Model 1 estimates the respondent's income as a function of his or her religion, controlling for gender, age, education, and length of stay in France. With dummies for all religions (and Christianity the omitted category, thereby serving as the point of comparison), we find that Muslim immigrants are significantly poorer than Christian immigrants. In model 2, we add home country fixed effects, a statistical technique that allows us to control for the immigrant's homeland. In model 3, we do the same for region of origin. The Muslim effect previously identified in model 1 loses statistical significance in models 2 and 3. Once we control for country or region of origin, we are unable to identify a Muslim effect, suggesting that the religious effect we measured in model 1 may actually be driven by some other cause related to a respondent's home country or region of origin rather than his or her religion. If the goal is to identify an independent Muslim effect on an immigrant's economic integration, this study (as with the previously reviewed CV studies) yields inconclusive results. A different strategy is needed to address our questions.

Our Matching Strategy

Our approach is to use a matching strategy, targeting immigrant groups that are divided religiously, with one portion of them being Muslim and another portion, quite similar to the first culturally, economically, and in education, being Christian. [A literature review on matching strategies can be found in the article by Sekhon (20)]. Comparing the Muslims and Christians in each group allows one to measure the "Muslim effect" without other confounding factors, such as region or country of origin.

Proper matching requires that the two subsets of religiously divided immigrant groups arrive at the host country with relatively equal resources, or else the comparison would be biased. Suppose the target population was the Lebanese population in North America and the comparison were between Maronite Christians and Sunni Muslims. Because the Maronites start off earlier and with rich international networks of banking families, a finding that Maronites achieve higher rates of economic success would tell us little about comparative social and economic barriers in the West attributable to religion (21).[o] Furthermore, insufficient overlap on initial income on arrival and on length of residence in the United States would lead us to estimate, in a statistical analysis, coefficients that are model-dependent, and would therefore limit our ability to make confident inferences about the religious effect on immigrant integration.

Careful examination of selected small immigrant groups in France, however, invites opportunities to get a reasonable approximation of an unbiased comparison. In our case, we identified an estimated 10,000 immigrants in France with family backgrounds as Joolas and Serers, two distinct ethnolinguistic communities from Senegal (22).[p] These two groups, unlike all other communities in Senegal, have a sufficiently large Christian population to allow for intragroup comparisons (23, 24).[q] Moreover, contrary to what we observe for Lebanese Maronite Christians and Sunni Muslims, Senegalese Christians did not benefit from the earlier settlement of a Senegalese Christian diaspora in France. To confirm this, we rely on a survey administered by David Laitin with the French firm Conseils-Sondages-Analyses (CSA), in which 511 Serers and Joolas, both Christians and Muslims, were polled on a variety of issues concerning their integration in France. Data from that survey indicate that the time elapsed since the settlement of the first migrant is 39 y for Senegalese Christian families and 39.3 y for Senegalese Muslim families. This difference is not statistically significant.[r] Furthermore, there is no statistically significant difference in the distribution of years of arrival in France between the two groups.

A rather common impression among the French population (and especially among the French population of Maghrebi origin) is that African Muslims are not "real" Muslims because they know little to no Arabic and interact indiscriminately with African Muslims and African non-Muslims (25). Our choice of a target

[m]The World Values Survey (18) is a global network of social scientists who have surveyed the basic values and beliefs of the publics of more than 80 societies on all six inhabited continents. Note that only 497 respondents reported their religion; thus, Muslims represented 9.9% of those who reported their religion. Still, the sample size of 47 limits the degrees of freedom necessary for careful statistical controls.

[n]The Passage à la Retraite des Immigrés (PRI) project (19) was carried out under the direction of Claudine Attias-Donfut, in collaboration with Rémi Gallou and Alain Rozenkier, with funding from the Agence nationale pour la Cohésion Sociale et l'Egalité des chances (ACSE), Agricarrco, Mutualité Sociale Agricole (MSA), and Caisse des Mines. This PRI project, completed in 2003 by the Caisse Nationale d'Assurance Vieillesse and the Insee, examines the factors and mechanisms that characterize immigrants' transition into retirement. Respondents were randomly selected from the Insee Census of 1999, from the baseline population of households with at least one immigrant member between the ages of 45 and 70 y at the time of the survey administration. The resulting sample comprises 6,211 respondents, 46.4% of whom are women, with a mean of 55.8 y of age and a median of 55 y of age. It is representative of the immigrant population residing in metropolitan France in 2003, that is, of all foreign-born immigrants in the selected age range. Although the data remain private, the authors kindly provided the data permitting our analysis in Fig. 1 and Table S1.

[o]According to the "Detroit Arab American Study" (21), Christian Lebanese immigrants arrived in the United States, on average, 10 y earlier than Muslim Lebanese immigrants. Furthermore, 58% of Christians of Lebanese origin were born in the United States compared with a mere 18% of Muslims of Lebanese origin.

[p]We include Manjaks, a closely related linguistic group, with the Joolas (22).

[q]From the 2002 Senegalese census (23), 25% of the Joolas and 11% of the Serers are Christian, whereas only 5% of the Senegalese population as a whole is Christian (24). It is worth noting that these Christian population shares are rather low. This raises a possible concern that the French assume all members of these communities are Muslim. Experimental evidence revealing that French hosts tend to misattribute Islam to all black Africans will be presented in future work. This misattribution would mean that the effects we identify via our matching strategy are actually biased downward. If anything, the real size of anti-Muslim discrimination is even greater than what we measure here.

[r]This survey was conducted in 2009 under contract by CSA France, in a project in which David Laitin, Yann Algan, and Vincent Tiberj were the principal investigators. There were 511 respondents from Serer or Joola backgrounds (with 509 giving a clear indication as to whether their household is Muslim or Christian). The survey had 29% Christian respondents and 71% Muslim respondents. Descriptive statistics of the survey are provided in Table S2. Hereafter, this survey will be referred to as the Laitin/CSA survey.

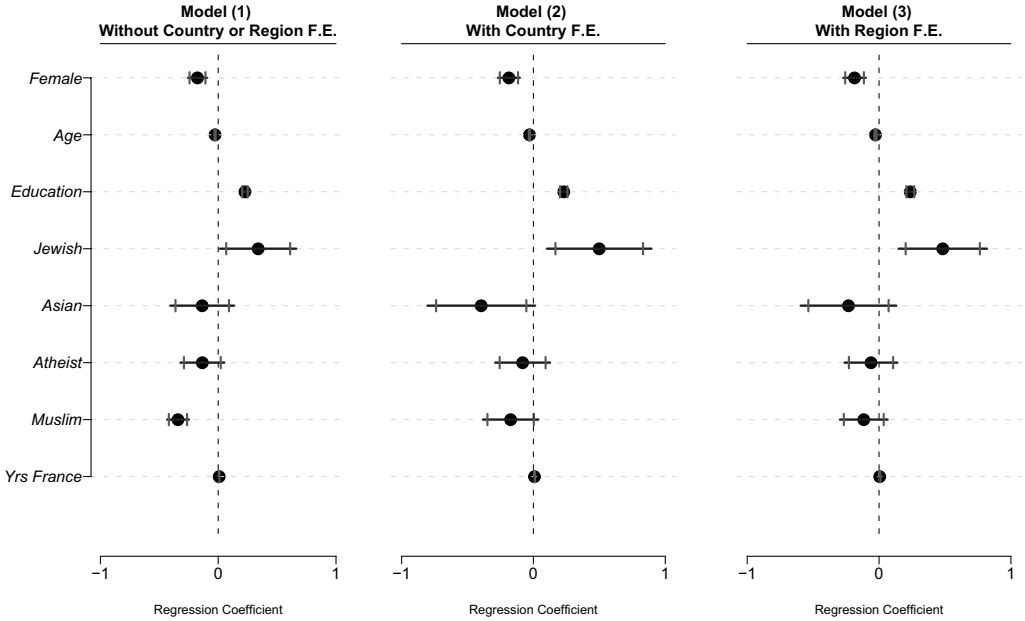

Fig. 1. Impact of religion and geographic origin on a household's yearly income. This figure is based on results in Table S1. The dependent variable is an ordinal variable ranging from the value "0" if the yearly household income is null to "14" if the yearly household income is greater than 68,000 Euros. The independent variable is whether the respondent is "Muslim," a binary variable, which takes the value "1" if the head of household is Muslim and "0" otherwise. In model 1, Muslim is significant at the $P < 0.01$ significance level on a two-tailed test. It is not significant by conventional standards in model 2 and in model 3. As for controls, "Female" is a binary variable, which takes the value "1" if the head of household is female and "0" if the head of household is male. "Age" is a continuous variable equal to the actual age of the head of household. "Education" is an ordinal variable ranging from the value "1" for no schooling to "6" for postsecondary education. "Jewish" is a binary variable, which takes the value "1" if the head of household is Jewish and "0" otherwise. "Asian" is a binary variable, which takes the value "1" if the head of household is Buddhist, Hindu, Shintoist, or Confucianist and "0" otherwise. "Atheist" is a binary variable, which takes the value "1" if the head of household is an atheist and "0" otherwise. The reference group is "Christian," a binary variable, which takes the value "1" if the head of household is Christian and "0" otherwise. "Yrs France" is a continuous variable equal to the number of years that the head of household has lived in France. SEs in the original probit model are robust. In the figure, the dot represents the regression coefficient, the horizontal line marks the 95% confidence level, and the two vertical lines mark the 90% confidence level. F.E. refers to fixed effects.

population less spontaneously associated with Islam in the French collective imagination, however, would lead to an underestimation of anti-Muslim discrimination. Our results should thus be interpreted as a lower bound on the magnitude of anti-Muslim discrimination: levels of discrimination among Maghrebis, the real Muslims who are at the center of public debates about the role of Islam in France, would almost certainly be even higher than those we find for Senegalese Muslims.

Keeping with the matching strategy outlined above to separate out region of origin and religion, our experimental design demanded three comparable CVs, two of them from women with an obvious Senegalese surname (Diouf) but one with a well-known Muslim first name (Khadija) and the other with a well-known Catholic first name (Marie). The third CV was from a woman with a typical French republican name, with no religious connotation (Aurélie Ménard). In addition to differences in the first names, we introduced two signals of religious identity related to the work and volunteer experiences of our fictitious candidates. One of Khadija's past positions was with Secours Islamique and one of Marie's was with Secours Catholique, whereas Aurélie worked solely in secular firms. Also, Khadija did voluntary work for the Scouts Musulmans de France, whereas Marie did the same for the comparable Catholic organization, Scouts et Guides de France.[s]

The remaining qualifications and backgrounds were identical for all three applicants: all were single French citizens, 24 y of age, and had 2 y of postsecondary education and 3 y of experience on the job market in either secretarial or accounting sectors. We deliberately chose occupations that entailed interaction with clients or company partners, such that recruiters would be paying greater attention to the expected reactions of these potential clients to their employees.

The non-governmental organization, Inter Service Migrants - Centre d'Observation et de Recherche sur l'Urbain et ses Mutations (ISM-CORUM), collected job announcements nation-wide for both types of occupations published on the Pôle Emploi Web site (the French national employment agency) during the spring of 2009. For each pair of job announcements matched by region, sector, company size, and position, ISM-CORUM administrators sent the Aurélie/Khadija candidate pair to one and the Aurélie/Marie candidate pair to the other. Aurélie Ménard was used principally as the "reference" candidate: her CV allowed us to avoid sending Marie and Khadija's applications for the same position. Because these applications were identical in both form and content (except for the religious identity signals), sending both CVs would have inevitably awakened suspicion among recruiters.[t]

Fig. 2 summarizes our results. We first observe that the reference candidate, Aurélie Ménard, received the same positive response rate from employers who received Marie's CV and from employers who received Khadija's CV (27% and 25% respectively, with no statistically significant difference between the two). This indicates that the companies receiving Marie's CV were, on average, similar to those receiving Khadija's CV, thus lending greater confidence to our comparison of Marie and Khadija's positive response rates.

[s]The first two organizations are both independent nongovernmental organizations in France with extensive international networks dedicated to the eradication of poverty. Neither has an obvious religious agenda. Their Web sites are http://www.secours-catholique.org/ and http://www.secours-islamique.org/. As for the volunteer work, the two organizations are listed as religiously affiliated branches of an international scouting federation (http://www.sgdf.fr/ and http://scoutsmusulmans.fr/).

[t]Exemplars of the three CVs are available in "Les Français musulmans sont-ils discriminés dans leur propre pays?" (http://frenchamerican.org/cms/webfm_send/164).

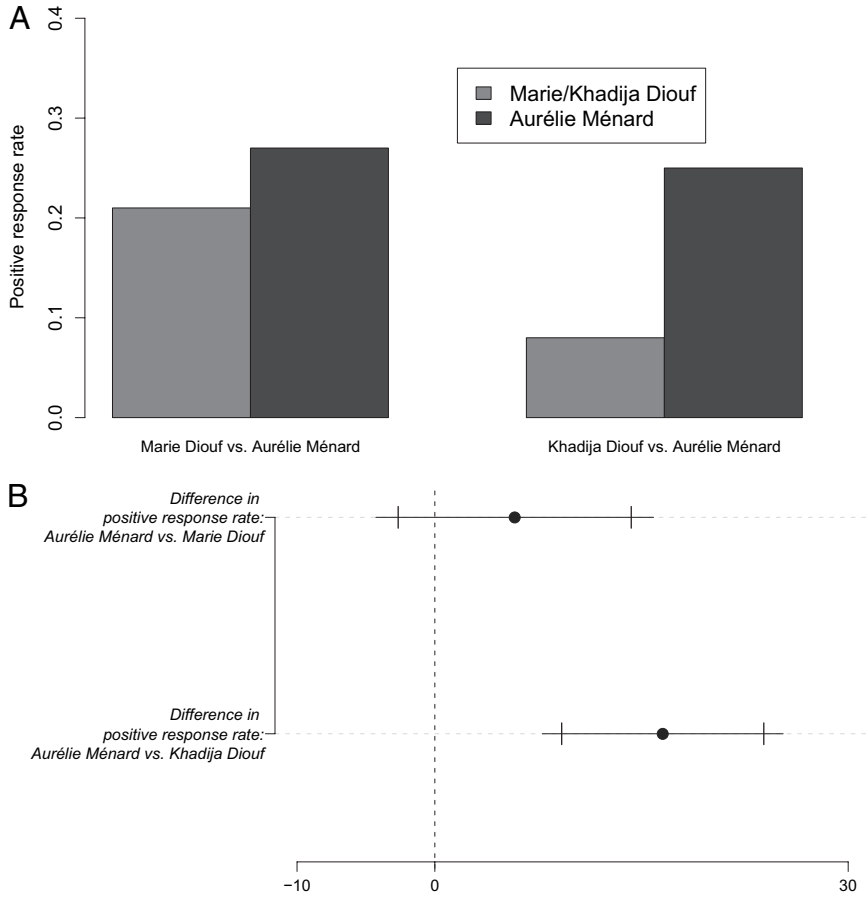

Fig. 2. (*A*) Substantive effect of Khadija Diouf vs. Marie Diouf. (*B*) Statistical significance of the Khadija Diouf effect. This figure is based on results in Table S3 from Dataset S1. In *B*, the dot represents the difference in response rates, the horizontal line marks the 95% confidence level, and the two vertical lines mark the 90% confidence level.

The difference between Marie and Khadija's positive response rates is striking. Although Marie Diouf received a positive response rate of 21%, Khadija Diouf received a positive response rate of only 8% (Fig. 2*A*). This 13-percentage point difference is statistically significant at the 99% confidence level and indicates that for every 100 positive responses received by Marie Diouf, Khadija Diouf received only 38 positive responses, or 2.5 times less.[u] Furthermore, these results hold in a multivariate regression controlling for regional differences, employment sector, company size, occupation, contract type, and whether or not the CV included a photograph.[v] Notably, the first 214 applications we sent had no pictures of the candidates. The next 61 included the same picture for the two Dioufs as a signal that they were not North Africans. Furthermore, there were no religious symbols in the photographs, indicating to recruiters that Khadija Diouf is not an orthodox Muslim. The results with and without the photographs were not statistically different from each other. This experiment thus provides a clear indication that in at least one sector of the French labor market and controlling for the candidate's ethnicity among other characteristics, there is significant religious discrimination.

Consequences of Religious Discrimination

Does the discrimination experienced by Muslim candidates in the French labor market correspond to an economic disadvantage on the part of Muslim immigrants relative to their Christian counterparts? To answer this question, we rely on the Laitin/CSA survey of 511 Senegalese Christians and Senegalese Muslims living in France in 2009. We previously established that these two groups immigrated into France in a single wave during the 1970s. To ensure a fair comparison, we must also ask whether the first immigrants of respondent families to France started out on equal footing. The only critical difference on the arrival in France of Senegalese Muslims and Senegalese Christians relates to education. Senegalese Christians were slightly more educated than Muslims: whereas the probability of having a secondary or a post-secondary education is 36% among Senegalese Christians, it is 27% among Senegalese Muslims (a difference that is significant at the 95% confidence level).[w] These results are consistent with ethnographic accounts of Senegalese Christians' access to better

[u]We code a response as positive when the candidate receives a call or an e-mail back from the employer inviting her for an interview, and we code a response as negative when a candidate receives no response from the employer or when the employer calls her back to turn her down. Our focus on callbacks as the outcome of interest may lead us to underestimate the extent of anti-Muslim discrimination in this context, if we believe that French companies face pressure to demonstrate that they are not discriminating against minorities: Muslims may receive callbacks so that the firm appears not to discriminate against them. This bias, if true, would work against finding an anti-Muslim effect, thus reinforcing our confidence that our result represents a lower bound on the extent of anti-Muslim discrimination.

[v]The ordered probit estimation is not shown but is available from the authors.

[w]Data from the 2002 Senegalese census (23), which will be reported on in a future paper, reveal precisely the same degree of educational difference between the subset of Muslim and Christian Joolas and Serers who have a relative living in Europe. A total of 57% of Muslim respondents who had a relative in Europe had only a primary or middle school education, whereas 42% had higher levels of education. For Christians, the figures are 53% for only primary or middle school education and 47% for more advanced levels of education. These differences are significant at the 99% level but are not radically different substantively. These data add confidence that the Laitin/CSA survey was representative of the two ethnolinguistic migrant groups in France.

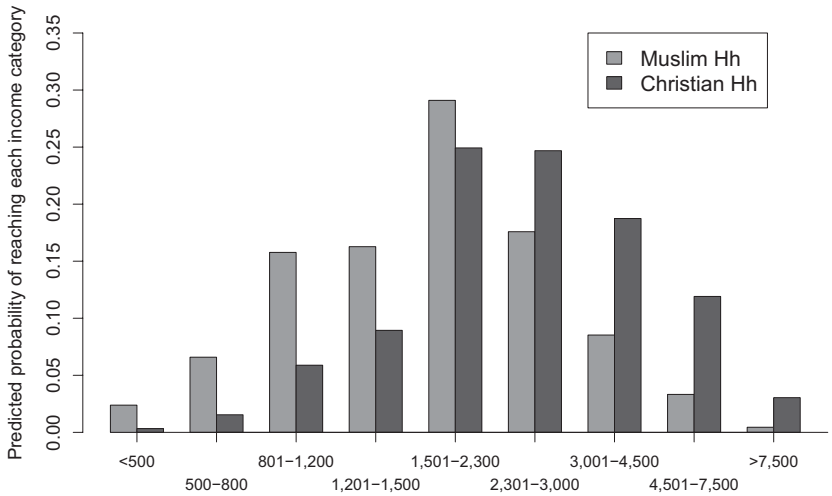

Fig. 3. Total income effect of Christian vs. Muslim household (Hh). This figure is based on results in Table S4 from Dataset S2 and its codebook (Dataset S3). Predicted probabilities of reaching each income category are calculated for each household. They are then averaged out for Christian households and for Muslim households for cases in which all other independent variables in the model are at their Christian/Muslim household mode. This captures the total effect on household income of being a Christian household vs. a Muslim household. Similar graphs were produced (*i*) holding all other variables at the sample mode, (*ii*) holding all other variables at their Christian/Muslim household mean ± 1 SD, and (*iii*) holding all other variables at the sample mean ± 1 SD. All present the same pattern as that illustrated here.

quality education through their religious network (i.e., Catholic schools). A proper matching strategy between Senegalese Christians and Senegalese Muslims thus requires that we control for the first migrant's level of education, which, given their high overlap in educational achievement, is statistically feasible.

We can now ask, controlling notably for the educational level of the first migrant, whether Senegalese Christians have been more successful in breaking through social and economic glass ceilings in France than have Senegalese Muslims. With this procedure, we are confident that any differences found between the two groups are the result of some aspect of their religious upbringing or practice, because geographic origin does not vary and initial human capital is controlled for.[x]

We estimate the determinants of immigrant income in France today via an ordered probit regression with robust SEs, with the current monthly household income as the dependent variable. The explanatory variables are the religious tradition of the household, the head of household's gender and educational level, and the educational level of the head of household's ancestor who was the first to come to France. (Recall that there is no need for a second model with country fixed effects because all respondents are from Senegal. This is the key to our matching strategy.) As illustrated in Table S4, we find that households with a Christian religious tradition are significantly richer than households with a Muslim religious tradition (significant at the 99% level).[y] More precisely, when we estimate marginal effects and hold all other explanatory variables in the model at their predicted sample mean, the results indicate that Muslim households make, on average, 400 Euros less than Christian households each month, the equivalent of 15% of the average monthly income or 17% of the median monthly income for France in 2007 (26).[z] Fig. 3 further illustrates the effect of household religion for each income category: it indicates that Muslim households are more likely to fall into lower income categories, whereas Christian households are more likely to fall into higher income categories. In sum, even controlling for the educational level of the first migrant to France, there is a significant negative Muslim effect on present day household income. We can therefore infer that the job discrimination revealed in the section on our matching strategy has broad implications for differences in today's household income for Muslims.

Summary and Extensions

In this paper, we have shown that both public debate and previous research on the implications of religious difference for integration into Europe, and France in particular, have yielded ambiguous results. Relying on a matching strategy and replicating well-understood CV experiments, we have been able to identify a statistically and substantively strong level of religious discrimination in at least one sector of the French labor market. Relying on that same matching strategy but now through a large-n survey of the descendants of Senegalese migrants into France, we are able to show one potential implication of job discrimination, namely, that over two generations Muslims have done less well economically than comparable Christians.

Some big questions remain unanswered, however. We still have not identified the mechanisms by which Muslims face relative economic failure. Consider the results on job discrimination. They may reflect a "taste" that *français de souche* (rooted French), those with four grandparents born within the French hexagon, have for fellow Christians. They may reflect instead an ability of Senegalese Christians to communicate trust and desire to succeed better than Senegalese Muslims, who lack comparable civic connections (e.g., through the Church) with French people. Alternatively, they may reflect cultural practices of Muslims that signal to French employers a lower commitment to the job.

To address these core questions on mechanisms and relying on the same matching strategy, we have conducted a range of ethnographic interviews and experimental game-theory interventions focusing on the behavior of Senegalese Christians and Senegalese Muslims toward the French and vice versa. Our

[x]We assume here that an individual's education captures human capital. This may not always be the case, for example, if a virtuous cycle exists between an individual's human capital and his or her community's human capital. In this case, the gap in income that we identify may be attributable to differences in the communities' levels of human capital. However, without a measure of community level of human capital, we cannot control for this here.

[y]In Table S4, the variables "Gender of head of household" and "Educational level of head of household" introduce a number of missing observations. When we run the regression with only "Christian household" and "Educational level of first migrant" on the right-hand side, our observations increase to 372 and the effect of Christian household continues to be positive and statistically significant. When we look at the respondents who are excluded from the analysis because of missing data, we find that 23% of them are Muslims (compared with 16.5% Christian) and that they are poorer than the average respondent. Hence, the bias introduced by missing data is likely to result in an underestimation of the negative Muslim effect on household income.

[z]The average annual household income in 2007 was 33,100 Euros (or an average monthly income of 2,758 Euros); the median annual household income in 2007 was 27,630 Euros (or a median monthly income of 2,302 Euros) (26).

subsequent papers for this project will assess the explanatory power of these different mechanisms. Future research ought also to compare matched populations in other European states to see if state policies (e.g., multiculturalism vs. republicanism) differ in their success in fostering the integration of Muslim populations.

In this paper, relying on models that combine the controlled conditions of an experiment with a large-N survey, we have established a clear, albeit uncomfortable, finding. All other things being equal, Muslims have faced barriers to economic integration in France that are higher than they would have been if everything about them were the same save for their religion.

ACKNOWLEDGMENTS. We thank Amaney Jamal for her technical help and assistance in interpreting data from the Detroit Arab American Study. We thank Chris Beauchemin for giving us access to the 2002 Senegalese Census data, Susan Holmes for technical assistance with these data, and Jessica Gottlieb for research assistance. We owe our interpretations of Senegalese culture and society to our field collaborator, Etienne Smith, who has conducted extensive field research in Senegal. We thank Claudine Attias-Donfut, Rémi Gallou, and Alain Rozenkier for sharing their Passage à la Retraite des Immigrés (PRI) data. This research was funded by the National Science Foundation, Muslim Integration into European Union Societies: Comparative Perspectives," Grant SES-0819635 (to D.D.L.).

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