Perceptions and Labor Market Outcomes of Immigrants in Australia after 9/11*

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Abstract

I examine whether the terrorist attacks of September 11, 2001 led to changes in perceptions of religious and racial intolerance and discrimination among Muslim immigrants and immigrants who fit the Muslim-Arab stereotype in Australia, and whether these changes are mirrored in their labor market outcomes. I do find that Muslim men and those who look like Muslims increasingly report religious and racial intolerance and discrimination relative to other immigrants. However, I do not find evidence of corresponding changes in their probability of looking for work or of being employed. There is also no evidence of a differential change in hours worked or in wage incomes. This suggests that the Australian labor market did not react to attitudinal changes in society, at least in the immediate aftermath of 9/11.

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I Introduction

The repercussions of the attacks in the United States on September 11, 2001 (9/11) were felt worldwide. In the U.S., the Federal Bureau of Investigation (2001) reports a seventeen-fold increase in the number of anti-Islamic hate crimes in 2001 compared to the previous year. 9/11 provoked a backlash involving a surge of hate crimes against the Arab-American, Muslim, Sikh, South Asian, and other communities perceived to be Middle Eastern (American-Arab Anti-Discrimination Committee, 2003). Allen and Nielsen (2002) note a hardening of hostilities in the aftermath of September 11 toward Muslims in many EU countries, especially toward Muslim women and those who look of Muslim or Arab descent. In Australia, Poynting and Noble (2004) report a sharp increase in racial attacks against people of 'Middle Eastern appearance' immediately following 9/11. According to a 2003 survey, comprising of 186 respondents in Sydney and Melbourne, Muslims were far more likely to report that they had experienced more racism since September 11 compared to non-Muslim respondents (Poynting and Noble, 2004). In 2003, the Human Rights and Equal Opportunity Commission (HREOC) launched a project to investigate whether Arab and Muslim Australians faced increased hostility since September 11, 2001. Participants identifiable as Arab or Muslim by their dress, language, name or appearance told of having been abused, threatened, spat on, assailed with eggs, bottles, cans and rocks, punched, and even bitten. Many said they felt isolated and fearful (HREOC, 2003). Thus, following 9/11, there is anecdotal evidence of a rise in anti-Arab and anti-Muslim sentiment in Australia as well.

In this paper, using a nationally representative survey of recent immigrants to Australia, I examine whether after 9/11 immigrants who are - or appear to be - Muslim undergo a greater change in their perceptions about religious and racial intolerance and discrimination compared to other immigrant groups.[1] If, as suggested above, there was widespread increase in animosity toward Muslims and their stereotypes, then it is conceivable that the targeted groups would report a greater change in such perceptions compared to others. In addition,

[1] Muslims and those who appear Muslim (Muslim-like) are sometimes referred to as targeted groups.

I examine whether after 9/11 there was a differential change in the labor market behavior and outcomes of the targeted groups relative to others.

Australia is one of the traditional settlement countries for international migration. In 2000-01 it attracted an inflow of 107 thousand settlers, and in 2007-08 this number rose to 149 thousand. The share of settlers from the Middle East, North Africa and South Asia rose from 14 percent to 18 percent during this period[2] (Department of Immigration and Citizenship, 2008). Understanding the effects of events like 9/11 on recent immigrants is important, not only for those intending to immigrate to Australia, but also for the Australian government if it is to rely on immigrant flows to address skill shortages in the labor market.[3] Further, if Australia would like to uphold the principles of multiculturalism and respect for all its residents, irrespective of their religion, ethnicity or country of origin, then it is an important first step to study the repercussions of events like 9/11 on its minorities. This paper is the first study to use nationally representative micro-level data to examine the causal effects of 9/11 on the perceptions and labor market outcomes of a cohort of immigrants to Australia.

Earlier studies have looked at the effects of 9/11 on various minority groups for the United States. Davila and Mora (2005) find that the earnings differential between Middle Eastern Arab men and non-Hispanic whites increased sharply between 2000 and 2002. Surprisingly though, they find little change in the wage gap between men from Iran, Pakistan and Afghanistan on the one hand, and non-Hispanic whites on the other. Orrenius and Zavodny (2006) find a negative impact of 9/11 on the earnings and hours worked of recent male Hispanic immigrants compared to natives. Kaushal, Kaestner and Reimers (2006) find that 9/11 did not have a significant effect on the employment and hours worked of first- and second- generation Arab and Muslim immigrant men in the United States, though it

[2]Not all countries in North Africa and South Asia are included in arriving at these figures for settler shares. The included countries are Algeria, Egypt, Libya, Morocco, Tunisia, Afghanistan, Bangladesh, India and Pakistan. These are the same countries used to create the 'Muslim-like' variable defined later in this paper.

[3]The Department of Immigration and Citizenship website of the Australian Government at http://www.immi.gov.au/employers/ provides information to employers to help meet the skills shortage in Australia. Information on this website suggests that Australia does rely on immigrants to address skill shortages in its labor market.

resulted in a 9 to 11 percent decline in their real wage and weekly earnings. Using 9/11 as a source of exogenous variation in attitudes, Aslund and Rooth (2005) investigate whether attitude changes toward certain minority groups in Sweden had an effect on their exit rates out of unemployment. They find that, despite the suggestion of increased hostilities after 9/11 toward immigrants from Middle East and Africa, there is no evidence of reduced unemployment exit rates for these ethnic groups. While their evidence for attitude changes comes from aggregate surveys, in this paper I analyze micro level data from a nationally representative survey of immigrants to provide evidence for a change in attitudes. Given that there are some odd patterns in the findings for the U.S. (namely that of no impact on immigrants from Iran Pakistan and Afghanistan as shown in Davila and Mora, 2005) there is some merit in studying another Anglo-Saxon country besides the United States. It would also be interesting to see whether the impact of 9/11 in Australia differs from that in Sweden.[4]

This paper also relates to the literature that examines the link between peoples' preconceptions and labor market discrimination (Darity and Mason 1998; Bertrand and Mullainathan 2004). I first examine whether groups that are most likely to be targeted after 9/11 reveal greater increases in self reported perceptions about racial and religious intolerance and discrimination compared to others. If these perceptions are grounded in real world experiences of the beleaguered groups, then such a finding can be viewed as evidence of a change in society's attitude toward them. Next, I examine whether a change in attitudes is accompanied by increased discrimination against the targeted groups in the labor market. 9/11 provides a natural experiment to examine whether attitude changes result in increased discrimination in the labor market.

I use the Longitudinal Survey of Immigrants to Australia, LSIA, and adopt a difference in differences approach where identification comes from the timing of survey interviews. I

[4]Unlike Aslund and Rooth (2005), I do not look at unemployment exit rates because of small sample size of the unemployed and a relatively long average unemployment duration. I look at other labor market outcomes and make a general comparison between the two countries.

find that after 9/11, Muslim men, and immigrants who look like Muslims, have an increased likelihood of reporting a lot of religious and racial intolerance and discrimination in Australia relative to other immigrants. However, I do not find any evidence of a corresponding differential change in their labor market behavior and outcomes.

Section II explains the empirical strategy. Section III describes the dataset. Section IV presents the results and section V concludes.

II Empirical Framework

i Methodology

The timing of interviews in the dataset is used to identify whether after 9/11 perceived discrimination grew faster among Muslim immigrants than among non-Muslims. The immigrants in the survey are interviewed twice. The first wave of interviews is conducted approximately five months after arrival and the second wave about eighteen months after arrival. Each wave of interviews occurs over a one year period. In the sample the earliest second wave interview is conducted on February 28, 2001 and the last interview on February 28, 2002. Therefore, September 11, 2001 divides the second wave interview period such that 0.53 of the period lies before it and 0.47 after. This helps in identifying the causal effects of 9/11.

I use the following difference in differences approach,

$$y_i = \alpha_0 + \alpha_1 Mus\lim_i + \alpha_2 Post911_i + \alpha_3(Mus\lim_i * Post911_i) + X_i\Gamma + \varepsilon_i \qquad (1)$$

where y_i is a binary dummy that captures individual i's perception of religious/racial intolerance/discrimination at second wave. $Mus\lim_i$ and $Post911_i$ are dummies for whether the individual is a Muslim and whether the second wave interview was conducted after September 11, 2001, respectively. X_i is a set of controls for individual characteristics like

sex, age, education, visa status, country of birth, state of residence etc. ε_i stands for all unobservable factors that affect an individual's perception. Thus, α_3 is a *difference in differences (DD) estimator.* It is identified through variation in average perception between Muslims and non-Muslims before 9/11, and comparison of this difference with variation in average perception between the same two groups after 9/11. The basic assumption of the DD approach is that the change in perceptions over time (conditional on observed individual characteristics) would have been the same among Muslims and non-Muslims in the absence of 9/11. If after September 11 Muslim immigrants perceive a greater increase in intolerance and discrimination compared to non-Muslim immigrants, then the interaction term, $Mus\lim * Post911$, should be positive and statistically significant. On the other hand, if after 9/11 all immigrants, irrespective of being targeted or not, perceive equally higher levels of discrimination in society, then only the $Post911$ variable will be statistically significant. When analyzing perceptions I estimate a Seemingly Unrelated Regression (SUR) system. I use SUR because there are four related variables on perceptions and SUR allows me to carry out *joint* significance tests of the interaction terms.

When studying labor market outcomes I estimate an equation similar to equation (1), where y_i now stands for the relevant labor market outcome. I examine whether, after 9/11, relative to other immigrants, Muslim immigrants have a differential likelihood to search for a new main job[5] and to be employed (conditional on having been employed in first wave). I also examine whether they have a differential change in hours worked and in income from wages and salaries.

In all cases, I also estimate the equations by replacing the Muslim dummy with a Muslim-like dummy. The Muslim-like dummy takes the value 1 for immigrants from the Middle East (except Israel), from Algeria, Egypt, Libya, Morocco and Tunisia in North Africa and from Afghanistan, Pakistan, India and Bangladesh in Central/South Asia. As mentioned in section I, the victims of racial attacks following 9/11 were not confined to Muslims alone, but

[5]Main job is defined as the one in which the immigrant works the maximum number of hours per week.

included many who appeared of Muslim or Arab descent. People who fall in the Muslim-like category may not be Muslims, but they fit the (media enforced) stereotype of an Arab or Middle Eastern Muslim. The Muslim-like variable captures any effects of 9/11 on attitudes and behavior that are expressed on the basis of appearance.

Finally, it should be noted that all immigrants in the sample arrive in Australia before September 11, 2001. Therefore, the interaction coefficient is not biased due to selection at the time of granting entry into the country.

III Data and Descriptive Analysis

I use the second cohort of the Longitudinal Survey of Immigrants to Australia (LSIA), undertaken by the Commonwealth Department of Immigration and Multicultural and Indigenous Affairs. The sampling unit of the LSIA is the Primary Applicant (PA). The PA is the person upon whom the approval to immigrate was based. The LSIA represents all PAs, aged 15 years and over, who arrived in Australia as offshore visaed immigrants between September 1999 and August 2000.[6] The group of persons who immigrate as part of the PA's visa application are known as the Migrating Unit (MU). To increase sample size, I also include MU spouses in the analysis. As mentioned earlier, LSIA has two waves, i.e. immigrants are interviewed twice. The first wave sample consists of 3124 PAs and 1094 MU spouses. Due to sample attrition between waves, the second wave consists of 2649 PAs and 942 MU spouses.[7]

According to the 2001 Census, Christians constitute the largest religious group comprising 68 percent of the total Australian population. Muslims constitute 1.5 percent. Compared to their share in the total Australian population, Muslims constitute a larger share of the LSIA immigrant cohort, 11.8 percent.

Table 1 presents some characteristics of the LSIA immigrants at second wave. These are reported for the full sample, as well as, separately, for the Muslim and Muslim-like samples.

[6] The size of the population that LSIA represents is around 32,500 PAs.

[7] Later, I examine whether differential attrition among the targeted groups is a concern for this study.

12 percent of the LSIA sample is Muslim and 20 percent is Muslim-like. Although September 11, 2001 divides the second wave interview period in almost two halves, only 26 percent of the interviews are carried out after 9/11. Thus, interviews are not uniformly spaced and a larger share is conducted before 9/11.[8] Only 2.3 percent is 'Muslim and interviewed after 9/11'. 4.1 percent is 'Muslim-like and interviewed after 9/11'. Therefore, the weighted number of observations are: 83 'Muslim and interviewed after 9/11', and 143 'Muslim-like and interviewed after 9/11'. Another motivation for having the Muslim-like comparison is to get a larger sample of those potentially affected by 9/11.

Column 1 shows that, on an average, LSIA immigrants have high levels of human capital. 77 percent are proficient English speakers, 43 percent have a Bachelor's or higher degree and 50 percent are on skilled visas. However, the targeted groups, especially the Muslim subsample, differ from the average immigrant in these characteristics. Among the targeted groups, there are significantly higher number of immigrants who cannot speak English very well, who have 'High school or less' education and who are on a Humanitarian visa.

While 59 percent of all immigrants are employed at second wave, only 32 percent and 42 percent of the Muslim and Muslim-like immigrants are employed, respectively. The modal weekly wage for the targeted groups is less than half of that for an average immigrant.

Thus, the targeted groups differ in their characteristics and labor market outcomes from an average recent immigrant.

Panel A of table 2 presents the questions, as worded in the LSIA questionnaire, on perceptions regarding religious and racial tolerance and discrimination in Australia. Responses to these questions are used to create the four dependent variables concerning perceptions. These are described in panel B of table 2. A striking observation when comparing answers on perceptions of tolerance versus discrimination is that more people choose to give a categorical response when asked about tolerance, and a larger share of these responses is extreme. There were 186 more responses for the question on religious tolerance compared to the one

[8] In estimations, I control for months spent in the host country which may vary quite a bit across the sample.

on religious discrimination, and, conditional on a response, while 9 percent felt that there was little religious tolerance in Australia, only 3 percent felt there was a lot of religious discrimination.

IV Results

i Perceptions

Table 3 presents the SUR results for the four responses on religious and racial perceptions. I use SUR to estimate a linear probability model where the sample includes only immigrants who gave all four responses.[9] Panel A shows the Muslim non-Muslim comparison, and panel B shows the Muslim-like non-Muslim-like comparison.

In both panels the coefficient on Post 9/11 is positive and significant[10] in all cases except religious intolerance. In the latter case it is negative, but not statistically significant. Further the interaction terms are always positive in both panels. This suggests that after 9/11 all immigrant groups were more likely to report that there was little racial tolerance and a lot of religious and racial discrimination compared to their perception before 9/11. For example, after 9/11, the probability of reporting high levels of racial intolerance in society increased by 8.3 percentage points among non-Muslims, and it increased by 10.2 (8.3+1.9) percentage points among Muslims (panel A, column 3).

In panel B, the interaction term between Muslim-like and Post 9/11 is statistically significant at the 1 percent level for religious intolerance and religious discrimination. However, as there are four dependent variables, this is a multiple inference scenario. The four null hypotheses are that each of the interaction coefficients is equal to zero. The alternative hypothesis in each case is that the interaction coefficient is positive. In the absence of a multiple test procedure, a particular null hypothesis may be rejected purely by chance. This

[9] The Bruesch and Pagan test of independence is rejected. Further, I test for non-response bias later in the analysis.

[10] It is positive, but not significant, for religious discrimination in the Muslim-like case.

then increases the probability of Type I error (rejecting the null when it is in fact true). Therefore, I apply the Holm's Sequentially Rejective Bonferroni (HSB) test to ensure that Type I error is always kept at (or below) a small predetermined level (Holm, 1979).[11] On applying the HSB test I find that the null hypotheses of insignificance are rejected at the 1 percent level for religious intolerance and religious discrimination, although the remaining two null hypotheses cannot be rejected. An alternative to the HSB is to test the *joint* significance of the four interaction terms. The single null hypothesis is that each of the four interaction coefficients is equal to zero. This chi2 test is against the alternative hypothesis that at least one of the coefficients is not equal to zero. The more relevant alternative is that at least one of the coefficients is greater than zero; therefore, this test is more conservative in rejecting the null. I reject the null for the Muslim-like case at the 1 percent level.[12] Thus, panel B of table 3 provides evidence to show that, after 9/11, there was greater increase in the perceptions of religious and racial intolerance and discrimination among immigrants who fit the Muslim-Arab stereotype compared to other immigrant groups. For example, before 9/11, a Muslim-like immigrant is 7.1 percentage points less likely to report a high level of religious intolerance compared to a non-Muslim-like immigrant. However, after 9/11, he is 7 (-7.1+14.1) percentage points more likely to do so.

On applying the HSB test for the Muslim comparison (table 3, panel A), the hypotheses of insignificant interaction terms cannot be rejected. The chi2 joint test also concludes that the four interaction terms are statistically insignificant.[13]

Robustness checks

The analysis above suggests that 9/11 had a greater impact on perceptions of Muslim-like immigrants relative to those who do not fit the Muslim-Arab stereotype. One potential cause for concern is that other incidents that happened around September 11 and that had different effects on targeted and non-targeted groups could be driving the results. To see if

[11] The Sequential Holm's Bonferroni test does not require that component tests be independent.
[12] The chi2(4) test statistic is 25.33 and the p value is 0.0000 (table 3, panel B).
[13] The chi2(4) test statistic is 5.8 and the p value is 0.2147 (table 3, panel A).

this is the case, I first look at the history of major events in Australia between March 2001 and February 2002, the period when the second wave of interviews was conducted.

Timeline of events

Poynting (2002) notes that throughout 2000 and up to August 2001, the media presented news about large numbers of asylum seekers from the Middle-East arriving off the coast of Western Australia. Stani (2000) states that many of the media reports were couched in a manner that generated very little public sympathy toward the asylum seekers, and terms like 'illegal immigrants', 'queue jumpers', 'human cargo' and 'invaders' were frequently used to describe them. On 26th August 2001, a Norwegian freighter, the Tampa, rescued around 450 asylum seekers, most of them Afghans, from a sinking ferry in Australian waters. The Australian government refused to grant entry to these so called 'boat people'. Although this incident happened close to 9/11, and most of the asylum seekers were probably Muslims, Australia had been following a tough stance toward all those who arrived illegally to its shores for many years. Australia's policy of mandatory detention, whereby anyone arriving without visas or passports and claiming refugee status is automatically locked away while their application is being investigated, has been in place since 1992. Since Australia consistently held a strict position on illegal immigrants long before September 11, the 'Tampa boat people' incident is unlikely to bias my results.

According to the police, between August 2000 and August 2001, there were eight serious group sexual assaults in the Bankstown area of south-west Sydney (Bankstown-Canterbury Torch, 2001). Various commentators described the crimes to have been ethnically motivated, as many of the perpetrators were identified as Lebanese Australian (Poynting, 2002). This may have contributed to racial vilification of the Muslim community.

The conservative Prime Minister, John Howard, won a third term in November 2001. Some attribute this largely due to several strict new measures against the 'boat people' and illegal immigrants. In fact, some of these measures against illegal arrivals were adopted because of increased security concerns felt after 9/11. If this is the case, then the interaction

coefficient would be rightly picking up this effect.[14]

The 'boat people' entries and the sexual assaults in Sydney may have contributed to a backdrop of anti-Islamic sentiment in Australia. However, Poynting (2002) notes that there was a dramatic upsurge of hostility toward people who appeared to be Muslim after 9/11.[15] Given the unprecedented nature of the 9/11 terrorist attacks, and the following media coverage which included a detailed profiling of the perpetrators, it is reasonable to hypothesize that 9/11 had a distinct effect on people who fit the Muslim Arab stereotype. I conduct robustness checks to verify this claim and show that the interaction terms are only picking up the 9/11 effects. The results are shown in table 4.[16]

Narrowing window around 9/11

I restrict the sample to a narrow window around 9/11. If 9/11 is driving the results, the coefficients on the interaction terms should be similar in magnitude to those in table 3, although standard errors may be larger due to reduced sample size. Panel A of table 4 shows the results where only immigrants interviewed in the three months before and after September 11 are included in the estimation. The magnitudes of the interaction coefficients are similar to, and in some cases larger than, corresponding coefficients in table 3, except for the racial discrimination, where the magnitude is much smaller. However, the interaction term for the racial discrimination variable is not statistically significant in both tables. Just like for the full sample, on applying the HSB test I find that the null hypotheses of insignificance are rejected at the 1 percent level for religious intolerance and religious discrimination, although the remaining two null hypotheses cannot be rejected. For the chi2 test, the null hypothesis of joint insignificance is rejected at the 1 percent level.[17] I conclude that 9/11 had a distinctive effect on the perceptions of Muslim-like immigrants and the result is robust

[14] The night-club bombing in Bali, Indonesia, which some refer to as Australia's September 11, happened in October 2002. The second wave of interviews was completed in February 2002 and therefore the Bali bombing does not influence this study.

[15] For example, the Melbourne office of the Australian Arabic Council reported a rapid twenty fold increase in the rate of incidence of anti-Arab racial vilification immediately after 9/11 (Poynting, 2002).

[16] Robustness checks are only shown for the Muslim-like case as there is no evidence of a differential change in the perceptions of Muslims.

[17] The chi2(4) test statistic is 22.7 and the p value is 0.0002 (table 4, panel A).

to this test.

June 5 cutoff

I use only those interviews conducted before September 11, 2001, and split this second wave sample in half by choosing June 5 as the midpoint. I re-estimate the SUR specification in table 3 using a Post June 5 dummy instead of a Post 9/11 dummy. If the events of 9/11 are solely driving the results, the interaction coefficients should not be significant in this specification. Panel B of table 4 presents the results. On applying the HSB test, the four hypotheses that each of the interaction variables is insignificant cannot be rejected.[18] The chi2 joint test that the interaction coefficients are equal to zero is rejected at the 5 percent level, but not at 1 percent.[19] While the HSB test allows for one sided alternative hypotheses, the chi2 test is two tailed which would incorrectly give weight to the negative coefficient in column 3. Therefore, I rely more on the HSB results, and conclude that the interaction terms for the Muslim-like case in table 3 are indeed picking up the causal effects of 9/11.[20]

Non-response bias

In all the estimations above an observation is included in the sample only when the individual gives a categorical response to the question being asked. If the immigrant chooses to answer 'No opinion', the observation is dropped. If individuals from targeted groups fear to state their opinions, and instead, choose not to say anything at all, this can bias the results. Table 5 examines whether non-response bias is a concern for the results in table 3. I once again estimate a SUR using the same specification as table 3. Conditional on being interviewed, the dependent variables take the value 1 when the immigrant chooses 'No opinion' and 0 otherwise.

Panel A tests for non-response among Muslims, and panel B does so for the Muslim-

[18] A cursory glance at the results in panel B of table 4 suggests that the interaction term for the racial discrimination variable is significant. However, as explained earlier, in the case of multiple testing, this could occur purely by chance and therefore, it is important to apply the HSB correction.

[19] The chi2 statistic is 12.34 and the p value is 0.015 (table 4, panel B).

[20] I repeat this robustness check using a discrimination index, which is a linear combination of the four perception variables discussed so far. As discussed later, the index is unambiguously robust to this test.

like. For the Muslim case, when I apply the HSB test, I cannot reject any of the four null hypotheses that the interaction terms are insignificant. The chi2 test also concludes that the interaction terms are jointly insignificant.[21] The HSB test for the Muslim-like case shows that there is significantly greater non-response after 9/11 in the religious and racial intolerance variables among the Muslim-like immigrants relative to others. The chi2 test of joint insignificance of the interaction terms is rejected at the 5 percent level of significance.[22]

Looking at the covariates (not shown in table 5), women and those who are not fluent in English are also more likely to not give a response, relative to men and those who can speak English well, respectively.

In sum, relative to other groups, there is evidence of significantly higher non-response after 9/11 among those who look like Muslims or Arabs in reporting their perceptions. LSIA data are collected using in-depth personal interviews and it is not surprising that the targeted group chooses not to respond to sensitive questions.[23] I expect that non-response among the targeted group biases the results downwards.

Differences by gender

Muslim women, especially those wearing the hijab (head covering traditionally worn by Muslim women), may be more conspicuous compared to Muslim men because of their dress. They are therefore more likely to become targets of anti-Muslim attitudes, and may therefore feel more threatened after 9/11. To examine if there are differences in perceptions by gender, I re-estimate table 3, separately for males and females. Table 6 presents the results.

For males, both Muslim and Muslim-like, on applying the HSB test I find that after 9/11 they report significantly higher levels of religious intolerance compared to other men. The

[21] The chi2 statistic is 3.71 and the p value is 0.4468 (table 5, panel A).

[22] The chi2 statistic is 12.24 and the p value is 0.0156 (table 5, panel B).

[23] Other reports have also noted non-response among the targeted groups. In 2003, the Human Rights and Equal Opportunity Commission conducted a survey to investigate the experience and reporting by Arab and Muslim Australians of discrimination, abuse and violence since 9/11. Of the 1,475 reply-paid, self-complete questionnaires sent out, only 186 were completed and received back by the Commission. Pyonting and Noble (2004) note that under-reporting of racism, due to wariness of the state and lack of trust in its authorities, could have contributed to lower response rates for the survey.

chi2 test of joint insignificance of the interaction terms is rejected at the 5 percent level.[24]

For Muslim women, I do not find evidence of significantly different change in perceptions. For the Muslim-like women, in some cases the coefficients are larger than those for men. On applying the HSB correction, I find that women who appear Muslim show a significantly higher increase in their perceptions of religious discrimination. The chi2 test that the interaction terms are jointly insignificant is rejected at the 5 percent level.[25] As mentioned above, the results for women may suffer from non-response bias.

Thus, in addition to the significantly different change in perceptions for Muslim-like immigrants seen in panel B of table 3, there is also evidence of a greater increase after 9/11 in perceptions of intolerance and discrimination for Muslim-men.

Principal Component Analysis: Discrimination index

I proxy an individual's underlying perception of discrimination in Australia by constructing a discrimination index which is a linear combination of the four perception variables used so far. I use principal components analysis to derive the weights, using the scoring factors generated by the first principal component to create the index.[26] The crucial assumption in using the principal components method is that an individual's perception of overall discrimination in Australian society explains the maximum variance-covariance in the four perception variables.

I re-estimate equation (1) using this perception index as the dependent variable. The results are summarized in table 7 where only the interaction coefficients are shown. Table 7 provides additional support to the results seen so far. After 9/11 Muslim-like immigrants (both males and females) and Muslim men are more likely to report a lot of discrimination in Australia compared to other immigrants. Further, both the robustness checks described

[24]For Muslim men, the chi2 statistic is 12.72 and the p value is 0.0127. For Muslim-like men, the chi2 statistic is 23.4 and the p value is 0.0001 (table 6).

[25]For Muslim women, the chi2 statistic is 2.37 and the p value is 0.6672. For Muslim-like women, the chi2 statistic is 10.7 and the p value is 0.0302 (table 6).

[26]Scoring factor is the weight assigned to each of the four variables (normalized by its mean and standard deviation) to construct the index. The scoring factors for religious intolerance, religious discrimination, racial intolerance and racial discrimination are 0.51, 0.42, 0.61 and 0.44, respectively. The percentage of covariance explained by the first principal component is 39%. The first eigenvalue is 1.55; the second eigenvalue is 1.08.

earlier confirm that it is the events around 9/11 that are driving the results. More importantly, the pseudo June 5 cutoff test unambiguously shows that the results are unlikely to be driven by events before 9/11. The interaction coefficient is negative and insignificant.

ii Labor Market Behavior and Outcomes

The analysis above presents evidence that after 9/11, Muslim men and Muslim-like immigrants show a greater increase in their perceptions concerning religious and racial intolerance and discrimination relative to other immigrants. Given this finding, I next examine whether this differential change in perceptions is concurrent with a corresponding change in the labor market.

Search for a Change in Main Job

Among the recent immigrants, 23 percent of those having a job at second wave were searching for a new main job. Table 8 shows the results for whether Muslims or Muslim-like immigrants show an increased likelihood of looking for a new main job after 9/11 compared to other immigrants. This may be the case, if after 9/11, the targeted groups are more likely to be dissatisfied with their work environment. On the other hand, targeted groups may show a decreased tendency for job search, if they feel that because of attitudinal changes their job prospects have been more adversely affected.

Conditional on being employed at second wave interview, the dependent variable takes the value 1 if the immigrant reports that he is searching for a new main job and 0 otherwise. The table reports linear probability model coefficients. Surprisingly, the interaction terms for the Muslim and Muslim-like cases have opposite signs. Panel A shows that the interaction between Muslim and Post 9/11 is positive and insignificant in all specifications. However, the magnitude of the coefficients are not trivial. Looking at column 3, before 9/11, Muslims are 9.3 percentage points less likely to be looking for a change in main job compared to non-Muslims, whereas after 9/11, they are 3.5 (-9.3+12.8) percentage points more likely to do so. The lack of significance could be the result of large standard errors due to small sample of

'Muslims*Post 9/11' (about 80 weighted observations). Panel B shows that the interaction between Muslim-like and Post 9/11 is negative, and is significant only at the ten percent level. Before 9/11, Muslim-like immigrants are 9.3 percentage points less likely to be looking for a change in main job compared to non-Muslim-like immigrants (this is not statistically significant), while after 9/11 they are 26.5 (9.3+17.2) percentage points less likely to do so.

Thus, for both targeted groups there is no compelling evidence of differential job search behavior.

Employment Status

59 percent of the recent immigrant cohort is employed at second wave. Table 9 shows whether, after 9/11, there is a differential change in the likelihood of being employed for Muslims and Muslim-like immigrants, compared to other immigrant groups. If after 9/11, targeted groups face higher rates of being fired, then one would expect a greater decrease in their employment rates.

Conditional on being employed at first wave, the dependent variable takes the value 1 if the immigrant is employed at second wave interview and 0 otherwise. The table reports linear probability model coefficients. Contrary to expectations, the interaction between 'Muslim and Post 9/11' and that between 'Muslim-like and Post 9/11' are both positive and of non-trivial magnitude, but never statistically significant. Once again, the higher standard errors on the 'Muslim and Post 9/11' estimate could be attributed to small sample of Muslims in the Post 9/11 period.

In sum, there is no evidence of differential employment rates after 9/11 for the targeted groups.

Hours Worked per Week in Main Job

On an average, recent immigrants work 38 hours per week in their main jobs. I examine whether after 9/11 there is a differential change in this variable for Muslims or Muslim-like immigrants compared to others. Table 10 presents the results for an OLS where the dependent variable is hours worked per week in the main job, conditional on having a job

at second wave. In columns 2 and 4, I additionally control for occupation. Column 2 shows that, before 9/11, Muslims work 5.7 hours less per week compared to non-Muslims, but after 9/11, this differential increases to 1.7 (-5.7+7.4) hours, although the interaction term is not statistically significant. Column 4 shows that, before 9/11, Muslim-like immigrants work 2.4 hours more per week compared to other immigrants (this is not statistically significant), but after 9/11, this differential increases to 5.8 (2.4+3.4) hours. Again, the interaction between Muslim-like and Post 9/11 is not statistically significant.[27]

Thus, there is no evidence of a differential change in hours worked for the targeted groups.

Income from Wages

LSIA captures income per week from wages and salaries, but the information is interval coded. The modal weekly income from wages and salaries is 1230.5 Australian dollars. In table 11 I present the results of an ordered probit regression where the latent variable is logarithm of wages. In columns 2 and 4, I additionally control for occupation. Column 2 shows that, before 9/11, Muslim immigrants earn 21 percent lower wages than non-Muslim immigrants, while after 9/11 they earn 23 (-21-2) percent lower wages. Similarly, column 4 shows that before 9/11 Muslim-like immigrants earn 27 percent higher wages compared to non-Muslim like immigrants, while after 9/11, they earn 38 (27+11) percent higher wages. The interaction term for both Muslim and Muslim-like are never statistically significant.

Thus, there is no evidence of differential change in wage income for these groups.

In conclusion, tables 8 through 11 show that 9/11 did not have a different effect on the labor market behavior and outcomes of the targeted groups relative to others. This conforms with the finding in Aslund and Rooth (2005) for Sweden. They find that following 9/11, in spite of an attitudinal change toward certain immigrant groups, there is no evidence of

[27] In columns 2 and 4, where I additionally control for occupation, there an increase of 1.4 hours and a decrease of 0.8 hours, respectively, in the magnitudes of the interaction coefficients from previous column values. This suggests that after 9/11, Muslims show a greater tendency to be in occupations that entail smaller work hours, while Muslim-like immigrants show a greater tendency to be in occupations that have longer work hours.

increased labor market discrimination against them.

iii Attrition bias

If after September 11 there was higher attrition among the targeted groups, then this may bias the results seen so far. I investigate this possibility. 86 percent of the PAs interviewed in the first wave were also interviewed in the second wave. For the Muslims and Muslim-like group this figure is 86 percent and 100 percent, respectively. Thus, there is no evidence of higher attrition rates between waves among the targeted groups. In fact, there is zero attrition among the Muslim-like immigrants.

I also examine whether there is differential attrition after 9/11 among the targeted groups. To investigate this, the left hand side of table 12 shows the sample fractions for a cross tabulation between religious identity and whether the second wave interview was conducted in the pre- or post- September 11, 2001 interview period. The right hand side shows the same information for the first wave sample, using August 16, 2000 as the cut off, because it divides the first wave interview period in exactly the same proportion as September 11 divides the second wave period.[28] The top panel shows that there is a one percentage point drop in the share of Muslim immigrants in the post-9/11 interview period compared to their share in the corresponding first wave period (from 3 percent in first wave to 2 percent in second wave). The lower panel shows that the share of Muslim-like immigrants interviewed after 9/11 remained the same as their share in the corresponding first wave period (4 percent in both cases). Thus, for the Muslim population there is some evidence of attrition bias after 9/11. The cross tabulations also show that attrition bias is not a problem for the Muslim-like population.

In all estimations above, I have used second wave weights, designed by the LSIA, to correct for attrition. To the extent that these weights take account of attrition and that a key variable in calculating these weights is country of origin, which is correlated with being

[28] September 11, 2001 divides the second wave interview period such that 0.53 of the period lies before it and 0.47 after. August 16, 2000 divides the first wave interview period in exactly this proportion.

Muslim, my estimates should not suffer from attrition bias.

V Conclusion

I first examine whether after the September 11, 2001 bombings in the United States there is a change in the perceptions regarding discrimination of Muslim immigrants to Australia, relative to non-Muslim immigrants. I also study whether this is the case for immigrants who may not be Muslims, but who appear to be of Muslim or Arab descent, and fit the media enforced stereotype of a 9/11 terrorist. Next, I examine whether there is a corresponding change in the labor market behavior and outcomes of the targeted groups. I use a nationally representative survey of immigrants to Australia and adopt a difference in differences approach where identification comes from the timing of survey interviews around 9/11.

I find that, after 9/11, Muslim men and those who fit the Muslim Arab stereotype, perceive a greater increase in religious and racial intolerance and discrimination relative to other immigrants. There is evidence of non-response bias for the Muslim-like comparison, but the result of a differential change in perceptions would only be strengthened in the absence of the bias. If perceptions are based on real life experiences of the respondents, then this finding suggests that, relative to other immigrants, Muslim men and those who look like Muslims experienced greater discrimination in the months immediately following 9/11. This shows that the social fabric in Australia was affected by the events surrounding 9/11, even if it is a country which is geographically far away from the United States where the terror attacks took place.

I find no evidence of a differential change after 9/11, in the propensity to search for a new main job, in the likelihood of being employed, in hours worked or in wages earned for the Muslim-like immigrants compared to others. There is also no evidence of a differential change for Muslims. However, I would exercise caution in interpreting the results for Muslims as the estimates are imprecisely measured due to the small sample size of 'Muslims after 9/11'.

The immigrants in this paper are all legal immigrants and are likely to be employed in the law and contracts bound formal economy. Therefore, even if employers experience increased hostility toward the targeted groups, they may not be able to discriminate against then at the workplace. An implication of the self reported perception changes could be that the LSIA immigrants belonging to the targeted groups might have changed their views on how Muslims in general are treated in Australia, but not necessarily on how they themselves are treated. This could also help explain the absence of any effect in the labor market. The absence of an effect in the labor market is also in line with a 2003 survey of respondents in Sydney and Melbourne. Poynting and Noble (2004) report that in ranking the most common site of racial abuse or violence following 9/11, the survey ranks the workplace after the street, the media, shopping malls, public transport and educational institutions.

This paper finds that 9/11 resulted in an increased perception of discrimination among immigrants who fit the Muslim-Arab stereotype. Together with anecdotal evidence documented in other reports (Poynting and Noble, 2004; Human Rights and Equal Opportunity Commission, 2004) it is reasonable to believe that these perceptions were shaped by experiences of being victimized on the basis of perceived religion, race or ethnicity. If Australia wants to eliminate prejudice and hostility toward its minority groups, the recommendations spelt out in the Human Rights and Equal Opportunity Commission, 2004, should be given serious consideration and steps must be taken toward implementing them. These recommendations include improving legal protection; ensuring community safety through law enforcement; addressing stereotypes and misinformation in public debate; empowering communities and fostering public support and solidarity with Arab and Muslim Australians (Human Rights and Equal Opportunity Commission, 2004).

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Table 1: Characteristics of LSIA sample at second wave

	Full Sample		Muslim Sample		Muslim-like Sample	
	Fraction or Average (std. dev.)	Sample size	Fraction or Average (std. dev.)	Sample size	Fraction or Average (std. dev.)	Sample size
	(1)	(2)	(3)	(4)	(5)	(6)
Muslim	0.12	3598				
Muslim-like[1]	0.20	3598				
Interviews after 9/11, Post911	0.26	3591				
Muslim*Post911	0.02	3591				
Muslim-like*Post911	0.04	3591				
Female	0.54	3591	0.48	431	0.49	585
Age in years	36.0 (10.5)	3591	33.7 (9.7)	431	33.7 (9.2)	585
Speak English well	0.77	3538	0.62	430	0.73	577
Principal Applicant	0.76	3598	0.78	432	0.74	585
MU spouse present in household	0.48	3598	0.43	432	0.51	585
Children of PA in household	0.9 (1.1)	3598	1.2 (1.2)	432	1.1 (1.1)	585
Months in Australia	17.5(1.5)	3591	17.5 (1.2)	431	17.4 (1.3)	585
Bachelor's and above	0.43	3528	0.27	428	0.45	571
Professional Certificate/ Trade	0.27	3528	0.17	428	0.19	571
High School or less	0.30	3528	0.56	428	0.36	571
Family Visa	0.41	3598	0.49	432	0.39	585
Skilled Visa	0.50	3598	0.28	432	0.48	585
Humanitarian Visa	0.09	3598	0.23	432	0.14	585
Employed	0.59	3538	0.32	430	0.42	577
Unemployed	0.06	3538	0.13	430	0.13	577
Not in labor force	0.35	3538	0.56	430	0.45	577
Looking for a change in main job	0.23	1849	0.29	111	0.31	195
Hours worked per week in main job	37.6 (13.3)	1831	32.3 (14.3)	111	36.7 (11.4)	194
Modal value of weekly wage income[2]	1230.5	1737	529.5	117	529.5	205

Used weights that correct for between wave attrition.

1. Muslim-like includes immigrants from the Middle East (except Israel), Algeria, Egypt, Libya, Morocco, Tunisia, Afghanistan, Bangladesh, India and Pakistan.

2. Midpoint of modal income interval, in Australian dollars.

Table 2: Perceptions about living in Australia, at second wave

Panel A: Questions on perceptions in the LSIA[1]

a. Do people in Australia display a lot of tolerance towards people of other religions, some or only a little?
b. Is there a lot of religious discrimination in Australia, some or only a little?
c. Do people in Australia display a lot of tolerance towards people of other races, cultures and countries, some or only a little?
d. Is there a lot of racial discrimination in Australia, some or only a little?

Panel B: Binary dependent variable (conditional on an opinion)

Variable	Response Description	Fraction	Sample size
Religious intolerance	1=Little tolerance, 0=Some or Lot	0.09	3311
Religious discrimination	1=Lot, 0=Some or Little	0.03	3125
Racial intolerance	1=Little tolerance, 0=Some or Lot	0.09	3382
Racial discrimination	1=Lot, 0=Some or Little	0.04	3286

Used weights that correct for between wave attrition.
1. For each of these questions, the respondent had the option to choose 'No opinion'.

Table 3: Perceptions

	Religious intolerance (1)	Religious discrimination (2)	Racial intolerance (3)	Racial discrimination (4)
Panel A: Muslims, SUR				
Muslim	0.016	-0.007	-0.018	-0.008
	[0.021]	[0.011]	[0.020]	[0.014]
Post 911	-0.009	0.033**	0.083***	0.066***
	[0.028]	[0.015]	[0.028]	[0.019]
Muslim*Post911	0.074	0.025	0.019	0.055*
	[0.046]	[0.025]	[0.046]	[0.031]
Observations	2916	2916	2916	2916
Panel B: Muslim-like, SUR				
Muslim-like	-0.071*	0.013	-0.081**	0.001
	[0.038]	[0.020]	[0.037]	[0.025]
Post 911	-0.029	0.025	0.079***	0.066***
	[0.028]	[0.015]	[0.028]	[0.019]
Muslim-like*Post911	0.141***	0.069***	0.039	0.035
	[0.038]	[0.021]	[0.038]	[0.025]
Observations	2916	2916	2916	2916

Used weights that correct for between wave attrition. Standard errors in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
Significance shown does not correct for multiple tests using Bonferroni correction.
Controls include gender, age, English proficiency, PA status, presence of MU spouse in the household, number of children in household, months in Australia, education, visa class, labor force status, quarter of arrival, country of birth group, interview state, Ramadan and Muslim interacted with Ramadan.

Table 4: Robustness checks for Perceptions

	Religious intolerance (1)	Religious discrimination (2)	Racial intolerance (3)	Racial discrimination (4)
Panel A: Narrowing window around 9/11, SUR				
Muslim-like	-0.175***	0.017	-0.226***	0.004
	[0.050]	[0.026]	[0.046]	[0.031]
Post 911	-0.016	-0.003	0.080**	0.019
	[0.035]	[0.018]	[0.032]	[0.021]
Muslim-like*Post911	0.146***	0.080***	0.077*	0.015
	[0.045]	[0.023]	[0.042]	[0.028]
Observations	1766	1766	1766	1766
Panel B: June 5 cutoff, SUR				
Muslim-like	-0.124***	0.033	-0.109**	-0.032
	[0.046]	[0.026]	[0.048]	[0.032]
Post June 5	0.046	-0.083***	-0.053	0.053**
	[0.034]	[0.019]	[0.035]	[0.023]
Muslim-like*Post June 5	0.002	-0.025	-0.056*	0.042**
	[0.029]	[0.017]	[0.030]	[0.020]
Observations	1967	1967	1967	1967

Used weights that correct for between wave attrition. Standard errors in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
Significance shown does not correct for multiple tests using Bonferroni correction.
Controls include those used in table 3.

Table 5: Testing Non-response

	Religious intolerance (1)	Religious discrimination (2)	Racial intolerance (3)	Racial discrimination (4)
Panel A: Muslims, SUR				
Muslim	-0.002	-0.026	0.022*	0.018
	[0.015]	[0.020]	[0.012]	[0.014]
Post 911	-0.011	-0.049*	0.060***	0.030
	[0.020]	[0.027]	[0.016]	[0.019]
Muslim*Post911	0.051	0.023	0.038	0.029
	[0.033]	[0.044]	[0.026]	[0.030]
Observations	3528	3528	3528	3528
Panel B: Muslim-like, SUR				
Muslim like	-0.016	-0.005	-0.039*	-0.030
	[0.028]	[0.037]	[0.022]	[0.025]
Post 911	-0.018	-0.053*	0.053***	0.024
	[0.020]	[0.027]	[0.017]	[0.019]
Muslim like*Post911	0.077***	0.067*	0.061***	0.044*
	[0.027]	[0.037]	[0.022]	[0.025]
Observations	3528	3528	3528	3528

Used weights that correct for between wave attrition. Standard errors in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
Significance shown does not correct for multiple tests using Bonferroni correction.
Controls include those used in table 3.

Table 6: Perceptions by Gender

	Religious intolerance (1)	Religious discrimination (2)	Racial intolerance (3)	Racial discrimination (4)
		Males, SUR		
Muslim	-0.007	-0.017	-0.031	-0.007
	[0.029]	[0.012]	[0.028]	[0.019]
Post 911	-0.054	0.011	-0.060	0.099***
	[0.040]	[0.017]	[0.039]	[0.026]
Muslim*Post911	0.182***	0.008	0.028	0.086**
	[0.064]	[0.026]	[0.061]	[0.041]
Observations	1398	1398	1398	1398
		Females, SUR		
Muslim	0.041	-0.002	-0.010	-0.009
	[0.029]	[0.019]	[0.030]	[0.020]
Post 911	0.017	0.057**	0.205***	0.026
	[0.038]	[0.024]	[0.039]	[0.026]
Muslim*Post911	-0.048	0.055	-0.006	0.021
	[0.066]	[0.042]	[0.066]	[0.045]
Observations	1518	1518	1518	1518
		Males, SUR		
Muslim like	-0.171***	0.007	-0.169***	0.014
	[0.057]	[0.024]	[0.055]	[0.037]
Post 911	-0.075*	0.007	-0.053	0.097***
	[0.041]	[0.017]	[0.039]	[0.026]
Muslim like*Post911	0.223***	0.043*	0.011	0.055
	[0.053]	[0.022]	[0.051]	[0.035]
Observations	1398	1398	1398	1398
		Females, SUR		
Muslim like	-0.000	0.006	0.002	-0.008
	[0.049]	[0.032]	[0.050]	[0.034]
Post 911	0.004	0.044*	0.198***	0.028
	[0.039]	[0.025]	[0.039]	[0.027]
Muslim like*Post911	0.051	0.106***	0.048	0.012
	[0.054]	[0.034]	[0.054]	[0.037]
Observations	1518	1518	1518	1518

Used weights that correct for between wave attrition. Standard errors in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
Significance shown does not correct for multiple tests using Bonferroni correction.
Controls include those used in table 3.

Table 7: Principal Components Analysis

Dependent variable: Discrimination index[1]; OLS				
Variable	Coefficient	Std. Error	p value	Observations
Perceptions				
Muslim*Post911	0.371	0.203	0.068	2916
Muslim like*Post911	0.605	0.168	0.000	2916
Perceptions by gender				
Males: Muslim*Post911	0.610	0.262	0.020	1398
Females: Muslim*Post911	0.097	0.309	0.755	1518
Males: Muslim like*Post911	0.666	0.219	0.002	1398
Females: Muslim like*Post911	0.507	0.251	0.044	1518
Robustness Check: Narrowing window around 9/11				
Muslim like*Post911	0.678	0.187	0.000	1766
Robustness Check: June 5 cutoff				
Muslim like*Post911	-0.086	0.132	0.517	1967

Used weights to correct for between wave attrition.

* significant at 10%; ** significant at 5%; *** significant at 1%.

1. Mean value of index is 0 with a std. dev.. of 1.24
   Mean value of index for Muslims is 0.002 with a std. dev.. of 1.20
   Mean value of index for Muslim-like is -0.027 with a std. dev.. of 1.18

Table 8: Searching for new Main Job, conditional on working at second wave

Dep. Var.: 1=Looking for new Main Job, 0=otherwise; Linear Probability Model			
	(1)	(2)	(3)
	Panel A: Muslims		
Muslim	-0.090	-0.091	-0.093
	[0.069]	[0.070]	[0.069]
Post 911	-0.062	-0.070	-0.073
	[0.068]	[0.070]	[0.069]
Muslim*Post911	0.128	0.128	0.128
	[0.186]	[0.188]	[0.188]
Network Job[1]	No	Yes	Yes
Occupation	No	No	Yes
Observations	1848	1782	1769
R-squared	0.09	0.09	0.11
	Panel B: Muslim-like		
Muslim like	-0.088	-0.093	-0.093
	[0.105]	[0.103]	[0.101]
Post 911	-0.045	-0.051	-0.053
	[0.068]	[0.071]	[0.070]
Muslim like*Post911	-0.164*	-0.168*	-0.172*
	[0.094]	[0.096]	[0.097]
Network Job[1]	No	Yes	Yes
Occupation	No	No	Yes
Observations	1848	1782	1769
R-squared	0.08	0.08	0.10

Used weights that correct for between wave attrition. Robust standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. Controls include those used in table 3, whether used qualification in main job, and as shown above.
1. Refers to whether the current job was obtained through social contact.

Table 9: Employment at second wave, conditional on being employed at first wave

Dep. Var.: 1=Employed, 0=Not Employed			
	(1)		(2)
Muslim	0.122	Muslim like	-0.072
	[0.087]		[0.093]
Post 911	-0.008	Post 911	-0.022
	[0.050]		[0.051]
Muslim*Post911	0.128	Muslim like*Post911	0.133
	[0.205]		[0.116]
Observations	1418	Observations	1418
R-squared	0.10	R-squared	0.09

Used weights that correct for between wave attrition. Robust standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. Controls include those used in table 3.

Table 10: Hours worked per week in main job

Dep. Var.: Hours worked per week in main job					
	(1)	(2)		(3)	(4)
Muslim	-5.942***	-5.722***	Muslim like	2.987	2.426
	[2.111]	[2.001]		[3.365]	[2.954]
Post 911	-5.667**	-4.916**	Post 911	-5.471**	-4.657**
	[2.526]	[2.227]		[2.470]	[2.180]
Muslim*Post911	6.124	7.498	Muslim like*Post911	4.102	3.392
	[5.228]	[4.945]		[2.772]	[2.906]
Occupation	No	Yes	Occupation	No	Yes
Observations	1830	1830	Observations	1830	1830
R-squared	0.20	0.24	R-squared	0.19	0.23

Used weights that correct for between wave attrition. Robust standard errors in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
Controls include those used in table 3.

Table 11: Wage Income per week in Main Job

Dep. Var.: Interval Coded Income from wages; Ordered Probit MLE					
	(1)	(2)		(3)	(4)
Muslim	-0.237*	-0.208	Muslim like	0.284	0.269
	[0.137]	[0.132]		[0.183]	[0.166]
Post 911	-0.213*	-0.159*	Post 911	-0.212**	-0.158*
	[0.111]	[0.096]		[0.105]	[0.091]
Muslim*Post911	-0.071	-0.021	Muslim like*Post911	0.134	0.107
	[0.315]	[0.336]		[0.157]	[0.152]
Occupation	No	Yes	Occupation	No	Yes
Observations	1736	1660	Observations	1736	1660
Log Pseudolikelihood	-55536	-51640	Log Pseudolikelihood	-55540	-51630

Used weights that correct for between wave attrition. Robust standard errors in brackets.
* significant at 10%; ** significant at 5%; *** significant at 1%.
Controls include those used in table 3.

Table 12: Religious identity by survey period (PA only)[1]

	Second wave			First wave	
	Pre 9/11	Post 9/11		Pre Aug/16	Post Aug/16
Non-Muslim	0.65	0.23	Non-Muslim	0.62	0.26
Muslim	0.09	0.02	Muslim	0.09	0.03

	Second wave			First wave	
	Pre 9/11	Post 9/11		Pre Aug/16	Post Aug/16
Non-Muslim-like	0.59	0.21	Non-Muslim-like	0.58	0.25
Muslim-like	0.16	0.04	Muslim-like	0.13	0.04

1 Used weights that do not correct for attrition.