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Religious Behaviour, Labour Supply, and Social Conformity: Evidence from a Ban on Muslim Religious Veiling

Kevin Devereux (Chinese Univ of Hong Kong)
Blair Long (Memorial University)
Margaret Samahita (University College Dublin)

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Religious Behaviour, Labour Supply, and Social Conformity: Evidence from a Ban on Muslim Religious Veiling *

Kevin Devereux[†] Blair Long[‡] Margaret Samahita[§]

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Abstract

In 2019 Canada's second-largest province introduced a selective ban on religious clothing in the public service as part of a broader effort to promote secularism in the public sphere. Using novel survey data we find evidence of spillovers onto labour force participation and religious expression among those outside the public service. We study the largest legally targeted group: Muslim women. Conducting a difference-in-difference analysis comparing Muslim women in Quebec to those in the rest of Canada, we find a relative reduction in the most liminal religious behaviour – wearing a veil in public – among both Canadian-born Muslim women and immigrants. We also find a relative increase in labour force participation among Canadian-born Muslim women, but not among immigrants. We corroborate the employment results using high quality administrative tax records, and document an anticipation effect: Muslim women sort into the targeted occupations in the year before implementation. The results are consistent with social norm signaling influencing private religious behaviour and labour market outcomes.

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[†]Chinese University of Hong Kong, kevin.devereux@cuhk.edu.hk

[‡]Memorial University Newfoundland

[§]University College Dublin

1 Introduction

Integration of religious and ethnic minorities is a pressing policy challenge for many western nations. Muslims in particular face labour market discrimination (Valfort 2017, Weichselbaumer 2020, Fernández-Reino et al. 2023), cultural stigma (Ghumman and Ryan 2013), and integrate slower than other minorities — even in the second generation (Bisin et al. 2008). Public policy to foster integration could work to the benefit of the minority group, but coercive laws risk alienating them from mainstream society (Bisin et al. 2011, Gould and Klor 2016, Fouka 2020, Abdelgadir and Fouka 2020).

We study the effect of secularist legislation in Canada's second largest province on religious behaviour and labour market outcomes for the largest targeted group: Muslim women. Passed and simultaneously implemented in June 2019, Bill 21 banned conspicuous displays of religion for new hires in public sector 'positions of authority'. Using unique survey data as well as administrative tax records, we find both direct effects of the legislation onto the targeted sectors, and spillovers onto behaviour of Muslim women not explicitly subject to the law. The latter are consistent with social norm signaling, and corroborate previous survey evidence on Bill 21's spillovers into the private sector and public sphere (Elbourne et al. 2022, Hasan et al. 2023, Potvin et al. 2024).

Following the bill's implementation, Muslim women in Quebec reduced public veiling rates by 10 percentage points, from a baseline of 40%. Canadian-born Muslim women in the province saw a 4-10 percentage point increase in employment, while immigrants showed no response. We also find evidence of anticipation effects: Canadian-born Muslim women show a surge in employment in targeted sectors in the year before the bill, suggesting an attempt to take advantage of a grandfather clause excluding incumbent workers from enforcement.

We also asked specifically about veiling in the workplace. Although imprecisely estimated, we find suggestive evidence that workplace veiling rates decreased for Canadian-born Muslim women in Quebec following Bill 21, while they increased for immigrants.

These results have important implications for public policy and the economics of identity and social norms. First, they show that coercive assimilation policies can suppress minority cultural/religious expression rather than provoking retrenchment. The direct effects of the law on religious expression spilled over onto behaviour outside the workplace, and onto women who were not legally targeted, showing evidence of the signaling power of laws (as theorized by Bénabou and Tirole 2026). However, the polarization in workplace veiling between Canadian-born and immigrant populations

suggests a tradeoff between integrating those already closer to society's mainstream and alienating those further away.

Second, the positive employment effect is surprising, and generally contradicts evidence that veiling bans decrease employment and education for Muslim women both in Muslim majority countries (Corekcioglu 2021, Benzer 2025) and Muslim minority western countries (Abdelgadir and Fouka 2020, Montpetit 2025; although Maurin and Navarrete H 2023 finds increased educational attainment among French Muslim girls after the 1994 headscarf ban).

Observing simultaneous increases in veiling and labour force participation among urban/educated women in Muslim majority countries, Carvalho (2013) proposes a model wherein veiling insulates women against stigma due to perceived irreligiousness when engaged in integrative activities such as market work. Preferences for workplace veiling are a combination of own preference for irreligiousness and the net stigma against veiling from religious and non-religious types in the community. As veiling and working are complements (to the extent that veiling and not working are substitute ways to evade stigma), working women are more likely to veil than non-working. Shofia (2022) finds empirical evidence for this in Indonesia, showing that trade shocks that increased female labour demand led to higher veiling rates.

Into this framework Jacquet and Montpetit (2025) introduces a wage penalty for workplace veiling, informed by a large body of evidence from western countries on labour market discrimination against Muslim women and veilers in particular (Valfort 2017, Koopmans et al. 2019, Weichselbaumer 2020, Fernández-Reino et al. 2023). Since veiling reduces returns to work, the authors can rationalize the negative correlation between working and veiling they document in France.

In Carvalho (2013)'s model, a workplace veiling ban can reduce employment if the net benefit to employment is not sufficiently high. When women are unable to evade stigma by veiling, they evade it by retreating from market work. A ceiling (or floor) on veiling binding at a level other than the unregulated optimal decreases the return to work, thereby inducing lower labour supply. However, with a high enough net benefit to employment, women may continue to integrate.[1]

We contribute to the literature by providing the first evidence on labour market integration of a veiling ban applied to the workplace, and the first evidence of the 'first-stage' effect of a veiling ban on actual veiling behaviour. Our unique retrospective

[1]This is in the context of a Muslim majority country where a higher risk of perceived irreligiousity in the workplace leads to higher optimal veiling levels in the workplace relative to the community. Jacquet and Montpetit (2025) argues that this may not be the case in a Muslim minority setting, where a wage penalty for veiling may induce lower optimal veiling rates in the workplace. Moreover, a large reduction in net stigma to unveiling at work – for example, via an increase in stigma associated with veiling at work – can induce higher labour supply. Beyond its direct legislative impacts, Bill 21 has had such an effect on social norms (Elbourne et al. 2022, Hasan et al. 2023, Potvin et al. 2024).

panel data on veiling also yields novel descriptive evidence on veil adoption (and abandonment) over the life cycle. The implications for public policy extend beyond Canada, to a number of western countries struggling to accommodate growing Muslim populations.

The rest of the paper is organized as follows. First we describe the institutional background in section 2 and the survey data in section 3. We present event study and difference-in-difference results for the survey in section 4, and for administrative tax data in section 5. Section 6 concludes.

2 Institutional Background

Quebec is the second largest province in Canada by population and the only majority francophone province. The Catholic church dominated its social institutions until the Quiet Revolution of 1970s, after which an ideology of secularism became predominant.

Various Quebec provincial governments have pursued legislation promoting secularism in the public sphere. In 2013 the Parti Québécois (PQ) tabled Bill 60, which would have banned religious symbols for many public sector employees and required recipients of public services to uncover their face. The government fell the following year for unrelated reasons, and the bill never passed.

In 2015 the new Parti Libéral de Québec (PLQ) government tabled the more limited Bill 62. Eventually passed in 2017, this required facial uncovering for the giving and receiving of public services, but did not explicitly target religious behaviour (although like Bill 60, it affirmed state religious neutrality). Courts soon suspended its implementation, citing a violation of Canada's Charter of Rights and Freedoms (hereafter, the Charter).

The newly-formed Coalition de l'Avenir de Québec (CAQ) government tabled and quickly passed Bill 21 in June 2019. This banned new entrants to public service occupations in 'positions of coercive authority' from wearing religious symbols or clothing, as well as requiring facial uncovering in public service provision (as in Bill 62). The CAQ government preemptively invoked the notwithstanding clause to avoid Charter scrutiny.

Bill 21 applies to public school teachers and principals, as well as certain administrators, judges, crown prosecutors, police officers, prison guards, peace officers, and senior civil servants with the power to compel compliance (including labour standards and safety inspectors, audit and immigration officers, and investigators). Incumbent workers who held their jobs before March 2019 are exempted, but they are unable to move to a different targeted occupation or the same targeted occupation in a different institution.

3 Survey Data and Descriptive Results

3.1 Survey Design

We surveyed Canadian Muslims aged 18 and above during October and November of 2025.[2] Abacus Data conducted the survey online in the respondent's choice of English or French, with attention and logic checks and standard quality controls. The survey yielded 599 responses with no logical inconsistencies, and another 117 with minimal inconsistencies in reported timing of events and/or income figures. Our baseline results use the total sample of 716 respondents, with illogical responses treated as missing.[3] We also consider throwing out all problematic observations entirely, and show the main results to be robust (see appendix A).

3.2 Summary Statistics

Table 1 shows summary statistics, with comparisons to population level statistics from the 2021 census (restricted to self-identifying Muslims over-18 and weighted so as to be nationally representative).[4] The survey is imperfectly representative of the Canadian Muslim population, with statistically significant discrepancies over nearly every statistic (with the exception of the indicator for having ever worked, which indeed has both the same mean and standard deviation to three decimal places in both datasets). The largest discrepancy is in the share born in Canada: slightly over half of our respondents are Canadian-born, compared to only 12% of the census respondents. Foreign-born Canadian Muslims may be less inclined to fill out surveys, or may have faced linguistic obstacles to completion.

Other discrepancies are minor. Survey respondents are on average three years younger than the national average, a little less likely to be women, and are less likely to have children. Compared to census respondents they are more likely to be working but less likely to be self-employed, and are more likely to hold a university degree. Among the two major ethnicities of Canadian Muslims, the Arab ethnicity is slightly overrepresented in our survey, with the South Asian ethnicity slightly underrepresented.[5] Magnitudes are moderate, and overall do not cast major doubt on the representativeness of our survey, apart from immigrant status.

Table 2 compares veiling and marital choices between our survey and the 2016 Survey of Muslims in Canada (Environics Institute 2016). We ask a wider range of

[2] See appendix B for the full questionnaire.

[3] For example, we throw out all working data for respondents who report beginning work before their date of birth, but retain their veiling responses so long as they are logical.

[4] For more detailed analysis of Canada's Muslim population, see Shah (2022), Shah (2024), and Institute of Islamic Studies, University of Toronto (2025).

[5] Respondents self-identify ethnicity in both datasets.

Table 1: Summary Statistics: Survey vs 2021 Census

	(1)	(2)	(3)
Variable	2021 Census	Survey	Difference
Woman	0.486	0.439	-0.047**
	(0.500)	(0.497)	(0.019)
Age	41.493	38.335	-3.158***
	(15.519)	(13.331)	(0.585)
Born in Canada	0.124	0.518	0.394***
	(0.330)	(0.500)	(0.013)
Years in Canada	16.469	14.733	-1.736***
	(11.347)	(12.469)	(0.616)
Arab	0.272	0.356	0.084***
	(0.445)	(0.479)	(0.017)
South Asian	0.346	0.292	-0.054***
	(0.476)	(0.455)	(0.018)
Married/Cohab.	0.636	0.672	0.035*
	(0.481)	(0.470)	(0.018)
Has Children	0.842	0.647	-0.196***
	(0.364)	(0.478)	(0.014)
Ever Worked	0.849	0.849	0.000
	(0.358)	(0.358)	(0.014)
Work Now	0.602	0.714	0.112***
	(0.490)	(0.452)	(0.018)
Full Time	0.729	0.821	0.092***
	(0.445)	(0.384)	(0.021)
Part Time	0.271	0.179	-0.092***
	(0.445)	(0.384)	(0.021)
Hours Worked		34.687	0.000
	()	(10.174)	(0.000)
Income (2025 CAD)	45,519.258	47,738.906	2,219.649
	(61,112.688)	(48,345.563)	(2,546.942)
Household Income		72,969.445	0.000
	()	(49,993.688)	(0.000)
Work From Home		0.200	0.000
	()	(0.401)	(0.000)
Public Sector	0.242	0.333	0.091***
	(0.428)	(0.472)	(0.020)
Self-Employed	0.183	0.085	-0.097***
	(0.386)	(0.280)	(0.018)
University Degree	0.471	0.587	0.116***
	(0.499)	(0.493)	(0.019)
Observations	31,013	716	31,729

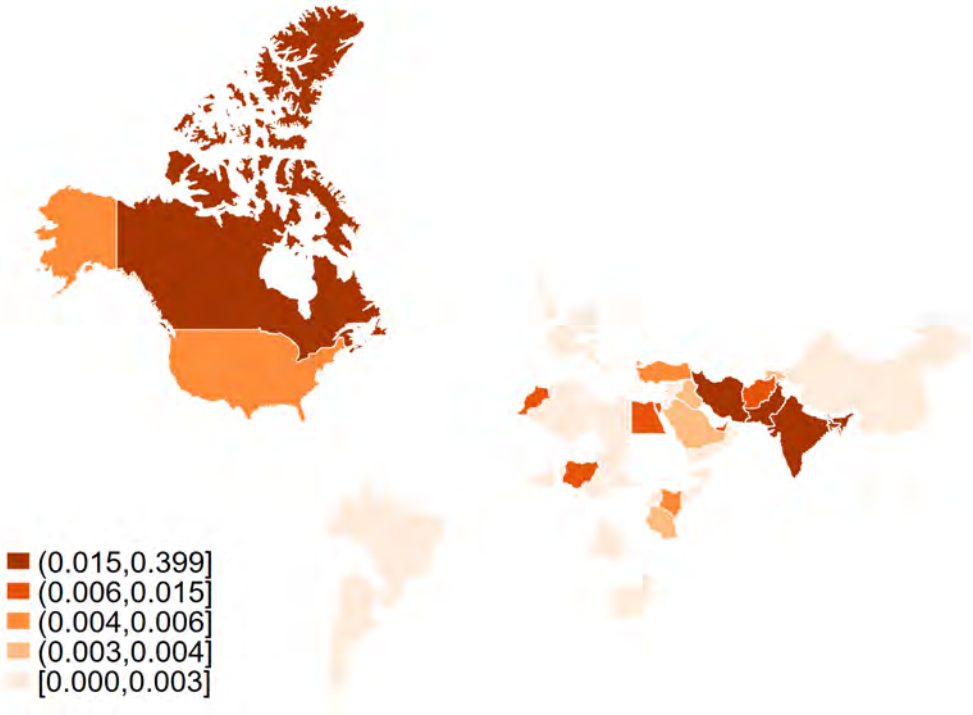
Table 2: Summary Statistics: Survey vs 2016 Survey of Muslims in Canada

	(1)	(2)	(3)
Variable	2016 SMiC	Our Survey	Difference
Ever Worn Veil in Public		0.605	0.000
	()	(0.490)	(0.000)
Wears Veil in Public Now	0.519	0.503	-0.016
	(0.501)	(0.501)	(0.041)
Ever Worn Veil at Work		0.811	0.000
	()	(0.393)	(0.000)
Wears Veil at Work Now		0.679	0.000
	()	(0.468)	(0.000)
Daughter Wears Veil		0.384	0.000
	()	(0.487)	(0.000)
Daughter Wears Veil (Excl. Young)		0.489	0.000
	()	(0.501)	(0.000)
Spouse Muslim	0.976	0.933	-0.043***
	(0.154)	(0.251)	(0.014)
Observations	600	716	1,316

Table 3: Summary Statistics: Social and Religious Beliefs

	(1)	(2)	(3)
Variable	Men	Women	Difference
Men More Right to Job	0.299	0.156	-0.142***
	(0.458)	(0.363)	(0.032)
Women Should Veil	0.687	0.608	-0.078**
	(0.464)	(0.489)	(0.036)
Women Should Veil (2nd Order)	0.644	0.591	-0.054**
	(0.298)	(0.310)	(0.023)
Should Stop Veiling	0.249	0.141	-0.108***
	(0.433)	(0.349)	(0.031)
Should Stop Veiling (2nd Order)	0.233	0.144	-0.089***
	(0.423)	(0.351)	(0.030)
Should Stop Working	0.152	0.241	0.090***
	(0.359)	(0.429)	(0.031)
Should Stop Working (2nd Order)	0.161	0.224	0.063**
	(0.368)	(0.418)	(0.030)
Should Comply	0.401	0.383	-0.018
	(0.491)	(0.487)	(0.038)
Should Comply (2nd Order)	0.378	0.350	-0.028
	(0.486)	(0.478)	(0.036)
Observations	402	314	716

Living in the Rest of Canada



Living in Quebec

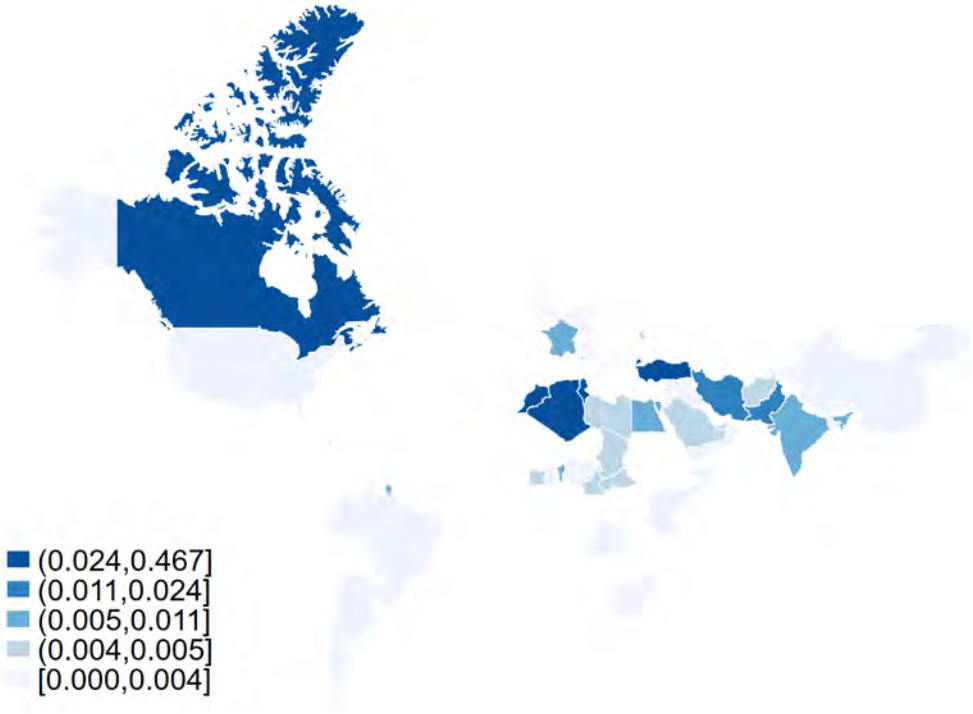


Figure 1: Birth Country Share of Survey Respondents

questions regarding past and present veil use, as well as use at work. The one statistic in common – currently wearing a veil in public – is remarkably close, at just over half in both datasets. We find that 60% of women report having ever worn a veil in public. Of those, over 80% report having ever veiled at work, with 68% still doing so now. Just under 40% of respondents with daughters report that their daughter veils, with the figure rising to nearly half when excluding girls who are too young to have started wearing one (as determined by the parent). Across both surveys, the vast majority of respondents report their spouse to be Muslim; both figures are over 90%, though ours is a few percentage points lower.

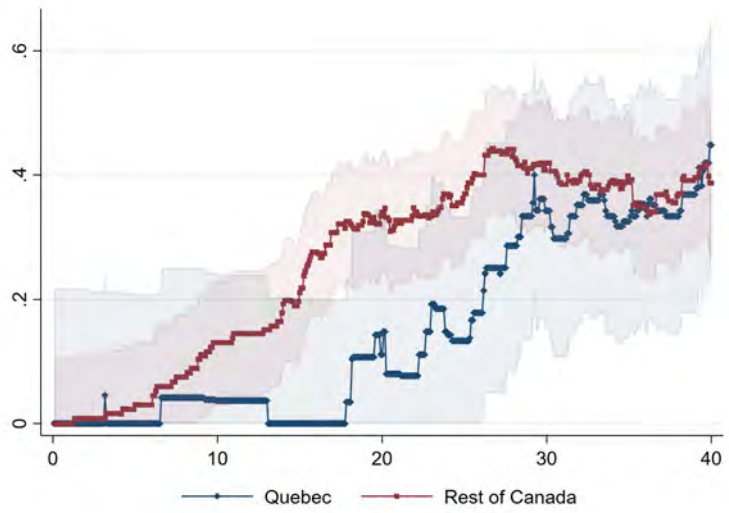
Table 3 compares social and religious beliefs of men and women in our survey. Nearly 30% of men agree (or strongly agree) with the statement: "When jobs are scarce, men should have more right to a job than women" – a common indicator of conservative gender attitudes. The share of women who agree is around half that. Nearly 70% of Muslim men believe that Muslim women should veil in public, with only 60% of Muslim women believing the same. When asked what other Muslims of the same gender believe, both genders hold second-order beliefs that other Muslims of their same gender are more lenient regarding veiling than themselves, with men and women believing themselves to be stricter regarding veiling beliefs at 4.3 and 1.7 percentage points respectively.[6]

In response to Bill 21, roughly the same fraction of men and women believe that women should comply with the restriction one way or the other. Strikingly, the preferred method of compliance differs between genders: a quarter of men, but only 14% of women believe that the proper response to Bill 21 is to stop veiling and continue working. These figures are reversed for the belief that women should comply by stopping working: only 15% of men, but 24% of women, believe so. Second-order beliefs regarding compliance are remarkably accurate for all categories, for both genders, with a maximum discrepancy of 1.7 percentage points.

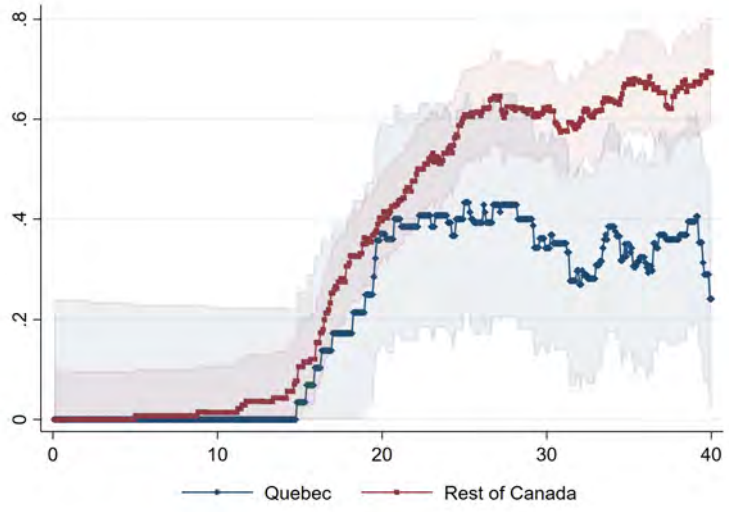
Figure 1 shows the share of survey respondents by birth country in the rest of Canada (RoC) and Quebec respectively. Canada is by far the most common for both. However, the shares show stark differences for immigrants: while Muslim immigrants to the RoC come mostly from South and West Asia, those to Quebec are more likely to come from North Africa (although the share from South and West Asia is still high).

[6] We did not incentivize accuracy.

Wearing Veil in Public



Working (Women)



Working (Men)

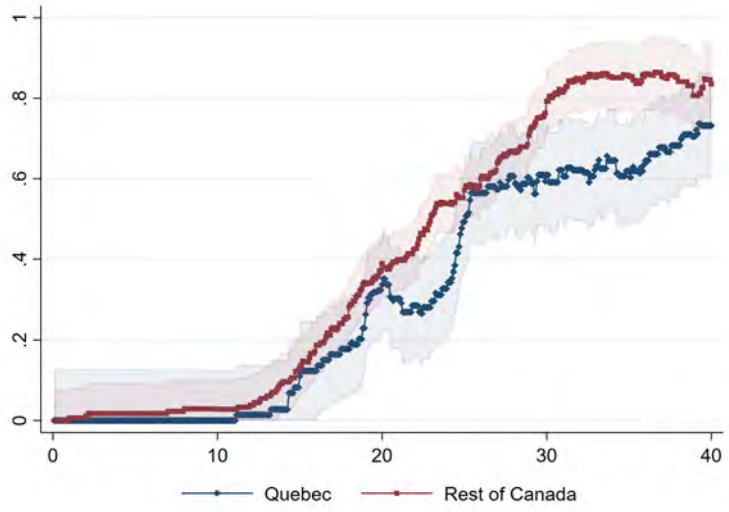


Figure 2: Age Profile of Veiling and Working

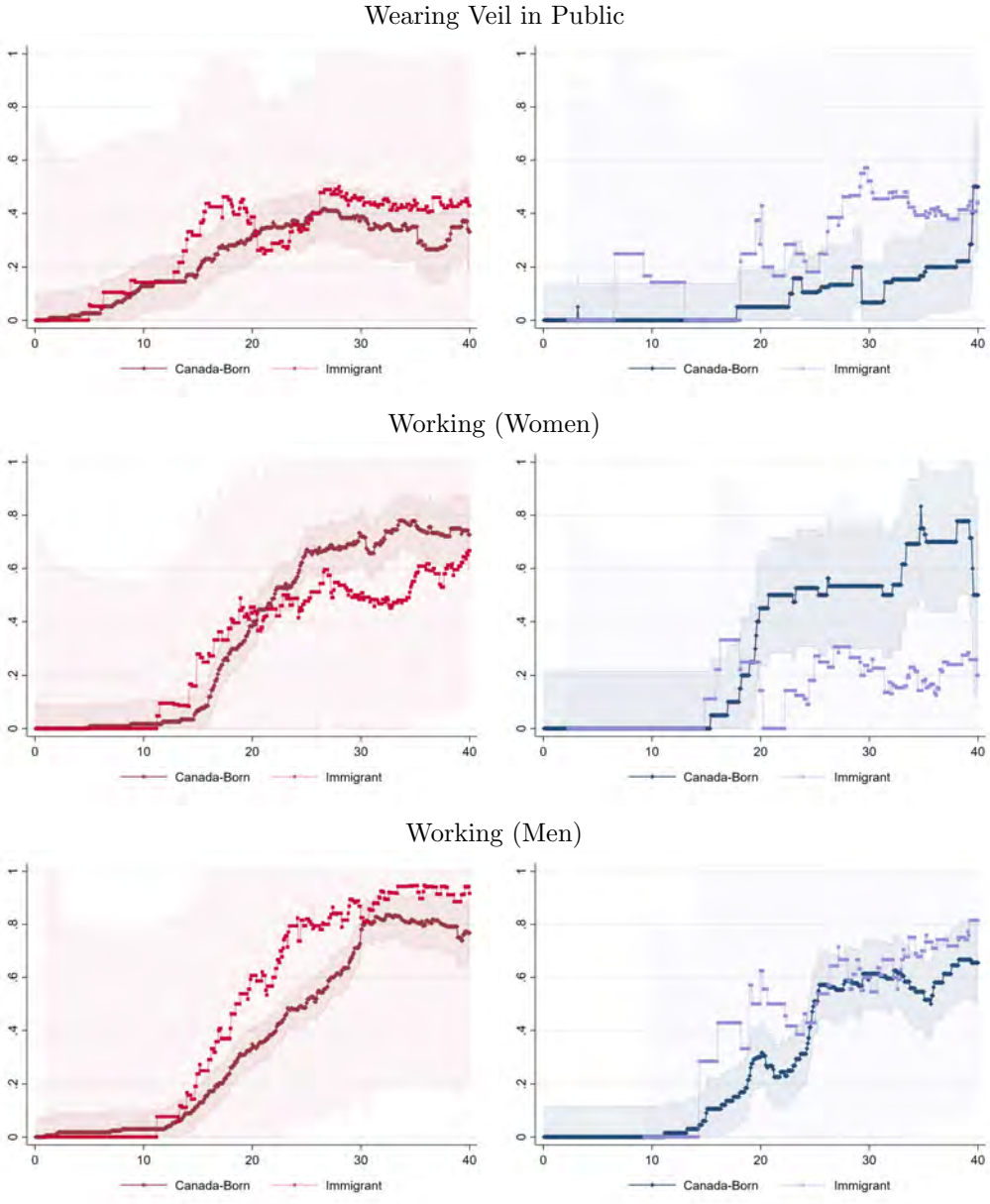


Figure 3: Age Profile of Veiling and Working by Immigrant Status

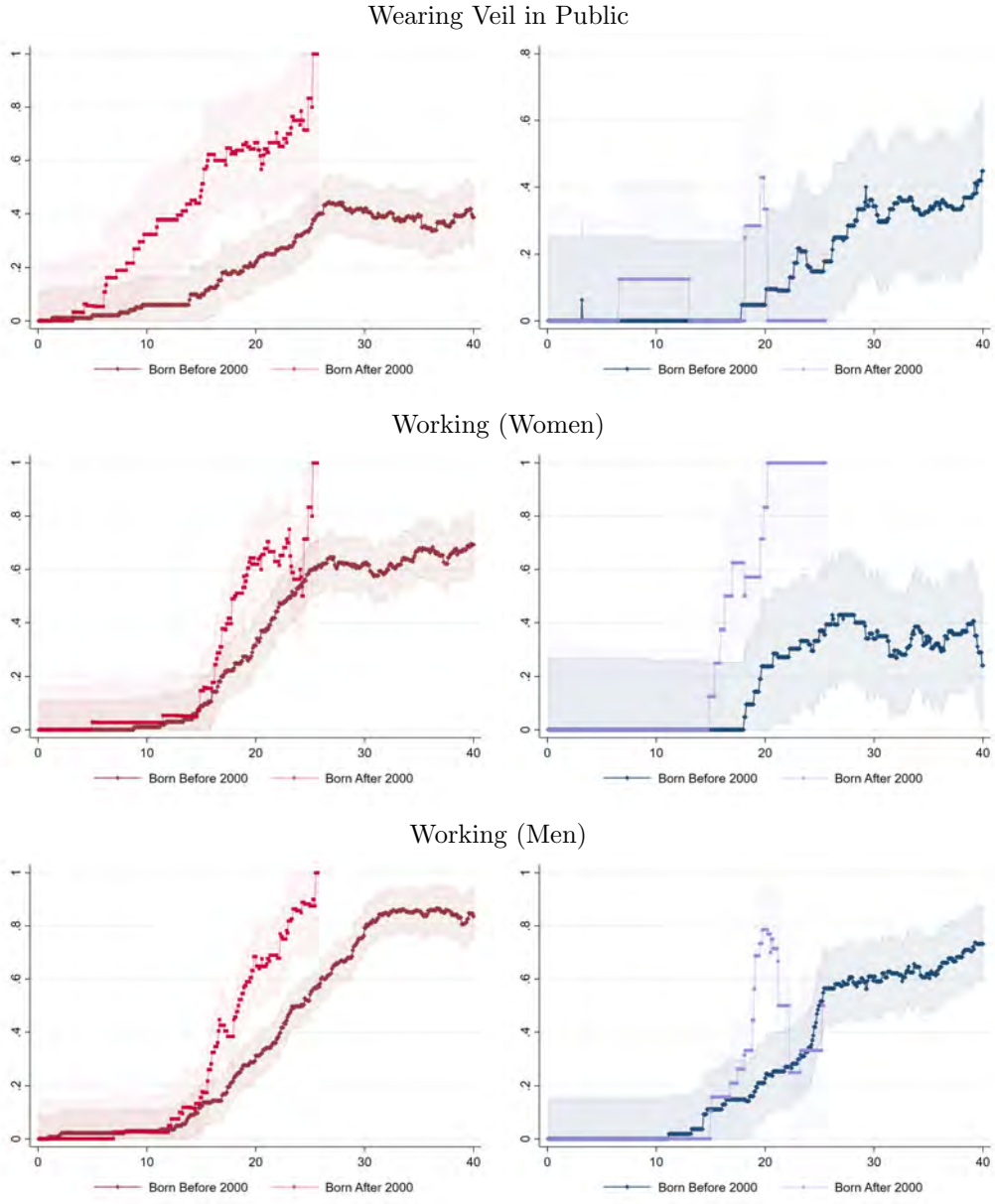


Figure 4: Age Profile of Veiling and Working by Cohort

Table 4: Summary Statistics: Retrospective Panel

	(1)	(2)	(3)
Variable	Rest of Canada	Quebec	Difference
Born in Canada	0.717	0.675	-0.042***
	(0.450)	(0.468)	(0.002)
Woman	0.441	0.285	-0.156***
	(0.496)	(0.451)	(0.002)
Age	23.732	25.997	2.265***
	(15.745)	(15.709)	(0.077)
Working	0.406	0.347	-0.059***
	(0.491)	(0.476)	(0.002)
Veiling	0.268	0.196	-0.072***
	(0.443)	(0.397)	(0.004)
Observations	165,194	56,614	221,808

3.3 Retrospective Panel Descriptive Statistics

We asked respondents about their retrospective working and veiling behaviour, as well as the dates of birth and immigration to Canada (if applicable).[7] Each respondent reports the year and month of their first job (if they have ever worked), and the year and month they ended their last job (if not currently working). Women report also the corresponding dates for veiling. This allows us to build a retrospective monthly panel of working and veiling behaviour.

Table 4 shows summary statistics for the retrospective panel, comparing the RoC to Quebec. The unit of observation is a person-month, and we limit the sample to those person-months in which the respondent reports having been in Canada. This begins at the birth date for the Canadian-born, and the date of immigration to Canada for immigrants. There are a greater share of immigrants in Quebec, and women are underrepresented. Quebec Muslims are less likely to report having been working at any given month in their life, and women less likely to be veiling.

Our retrospective measure of employment is slightly nonstandard. We do not have job spells, nor spells in which the respondent participates in the labour force; we ask the date at which the respondent first began working, and the last date at which they worked (if they no longer work at the time of the survey). For elderly respondents we can reasonably assume the latter correspond to permanent labour force exits, but for younger respondents, current unemployment and non-employment spells may be temporary. Similarly, our retrospective measure of veiling may turn on or off at most once each.

Figure 2 plots veiling and working over the life cycle, separately for the RoC and Quebec. Whereas RoC women report having begun veiling during childhood

[7] We asked these questions before any mention of Bill 21. See appendix B for the full questionnaire.

and adolescence, rates of veiling in Quebec are very low before the late teens but rise sharply during the 20s. By age 30 rates of veiling stabilize at around 40% in both Quebec and the RoC. Women report having worked at similar rates through their teens, reaching 40% by age 20 in both jurisdictions. After that, employment in Quebec stabilizes, whereas it continues to rise in the RoC until stabilizing at around 60% by the mid-20s.

Men start working also in the mid-teens and at similar rates compared to women until their 20s in Quebec and until their 30s in the RoC, after which working rates continue to increase for men (whereas by these ages they have stabilized for women). Employment rates for men diverge between Quebec and the RoC around age 30, with the RoC showing higher rates, until nearly converging again around age 40. In Quebec, but not the RoC, we see a drop in employment around age 20 (which may correspond to enrolment in post-secondary education).

In figure 3 we disaggregate veiling and working rates by immigrant status. Whereas in the RoC we see generally similar patterns between these groups – albeit with immigrant women working a little less and men working a little more at certain points in the life cycle – we see a starker difference in Quebec. In Quebec immigrant women veil more and work less than Canadian-born women. Men work at similar rates throughout the life cycle.

Finally we disaggregate by cohort in figure 4, with the younger cohorts being born in the year 2000 and later. In both Quebec and the RoC, the younger cohorts of both men and women started working earlier. Certainly in the RoC, but less clearly in Quebec, the younger cohort of women started veiling earlier. We note that the younger cohort of women in Quebec have been exposed to anti-veiling legislation at the ages at which they may begin to veil, but we refrain from drawing causal inference until the following section. To avoid bias in causal inference, we must introduce restrictions to the estimation sample, as described in the following subsection.

3.4 Retrospective Panel Estimation Sample

Without careful sampling restrictions the heterogeneous patterns of veiling and working shown above could bias inference. Because we surveyed respondents aged 18 and above *as of fall 2025*, the age distribution in our retrospective panel is not constant over time. Combined with heterogeneous age profiles of outcomes across treatment and control groups, naive comparison using the complete retrospective panel could introduce spurious treatment effects. We therefore restrict the estimation sample to observations for which we have a valid counterfactual in either group.

Consider veiling outcomes. Figure 4 shows that among cohorts born before 2000,

Muslim women in Quebec began veiling in the late teens, only exceeding a 10% veiling rate in their early- to mid-20s. Contrastingly, veiling rates among the corresponding cohort in the RoC exceeded 10% by age 15.

While our cross-sectional data survey is designed to be representative of the adult Muslim population in Canada (with the caveats outlined in table 1), our retrospective panel is not. Specifically, retrospective data are not representative of the age distribution in years before 2025. In 2025, we observe a random sample of adult Muslims, aged 18 and above. For 2024, respondents aged 18 in 2025 report their veiling/working behaviour as of age 17, and so on for previous years.

Treatment begins in Quebec in June 2019 an applies thereafter. Our youngest respondents were age 12 at this time. Because we do not observe treatment outcomes of Quebec respondents younger than 12, we cannot make comparisons using this group for the before-and-after dimension of difference-in-difference. We must therefore drop pre-treatment observations for which respondents were younger than 12 at the time.

In 2020, the year after treatment, our retrospective sample includes nobody younger than 13; in the following year 14, and so on until 2025, when the youngest respondent was 18. This implies the average age is higher in the treatment period compared to the control period. If the age profile of outcomes were similar across treatment and control group, difference-in-difference comparison would difference out the average change correlated with age. However, as shown in the previous subsection, the age profile of outcomes differs between Quebec and the RoC. Including 13-17 year-olds in the sample could then bias treatment effect estimates. For example, as Quebec Muslim women report having veiled at lower rates at these ages, the underrepresentation of this age group during the treatment period would bias up average veiling rates in that period. This should be the case in the RoC also, but the extent of bias being different – given different age profiles – differencing across treatment and control groups does not difference out the bias. We therefore restrict the estimation sample to person-months in which the respondent was 18 or older.

A similar problem applies to older ages within the retrospective sample. Earlier periods exclude the oldest ages that must have been present at the time, as potential respondents would have passed away by the time of interview. We therefore must drop such ages from the later periods – particularly post-treatment periods. Unlike the lower age threshold, the upper may vary by treatment and control group; since difference-in-difference requires before-and-after comparisons for each group, we drop ages older than the minimum across groups of the maximum age within group at the beginning of the sample period.

Oldest ages also vary by sex and subgroup (immigrant status in particular). Be-

Table 5: Summary Statistics: Retrospective Panel Estimation Sample

	N	Mean	Stdv.	Min	Max
Veiling	37805	0.42	0.49	0.00	1.00
Working	87672	0.64	0.48	0.00	1.00
Woman	87672	0.43	0.50	0.00	1.00
Born in Canada	87672	0.61	0.49	0.00	1.00
Living in Quebec	87672	0.26	0.44	0.00	1.00
Age	87672	32.86	9.41	18.00	55.00
Year	87672	2018.58	4.47	2010.00	2025.00

Unit of observation is a person-month.

ginning from 2010 yields maximum ages in that year ranging from 57-67 across sex and subgroup. For simplicity we drop person-months older than 55 for all samples. Figure 5 shows summary statistics for the estimation sample.

4 The Impact of Bill 21 on Working and Veiling

In this section we estimate the causal effect of Bill 21 on working and veiling for Muslims in Quebec using the retrospective panel estimation sample described in the previous section. Although Bill 21 applies legally only to new entrants to specific public-sector occupations, we find spillovers onto the broader population, suggesting a response due to social norm signaling rather than legal compliance. For this reason we consider possible confounding effects of two earlier pieces of secularist legislation which were tabled, but either never passed (in the case of Bill 60) or passed but not implemented (in the case of Bill 62).

We find that Bill 21 reduced veiling rates among Muslim women in Quebec – for both Canadian-born and immigrants – and increased employment for the Canadian-born among them, but not for immigrants. Prior laws show economically small responses and/or responses that are inconsistent across specifications. We also find suggestive evidence that Canada-born Muslim men reduce working rates around the times that Canada-born Muslim women are increasing them.

4.1 Event Study Results

Figure 5 plots event studies of veiling for Muslim women in the rest of Canada (RoC) and Quebec. We show results for the full sample, as well as for Canada-born and

immigrant women separately, and plot the difference between Quebec and the RoC over time, with the date of Bill 21's passing (June 2019) being normalized to zero. Before Bill 21, veiling rates trended up since 2015 in both jurisdictions. Although Quebec's veiling rate is lower, pre-trends appear roughly parallel in the years before Bill 21 – with veiling rates increasing faster for Quebec immigrant women, if anything. After Bill 21 veiling rates continue to increase in the RoC, but flatten in Quebec. This yields a negative differential effect in Quebec following the bill, shown in the lower panel.

Figure 6 repeats this analysis with working outcomes. Again, pre-trends are similar. Although the full sample shows no differential following Bill 21, Canada-born Muslim women in Quebec show a steep increase in working in the year following the bill, resulting in a positive differential effect.

Figure 7 shows working outcomes for men. Pre-trends are nearly identical, but following Bill 21 working rates for Canada-born men in the RoC decrease steeply until 2023, resulting in a large and gradual negative differential for men.

Besides the tabling and passing of Bill 21, our event study plots indicate the dates of the tabling of Bill 60, which was never passed, and the tabling and passing of Bill 62. Effects of these bills on working and veiling behaviour are not immediately apparent from the event studies, but we proceed to analyze them in the difference-in-difference analysis.

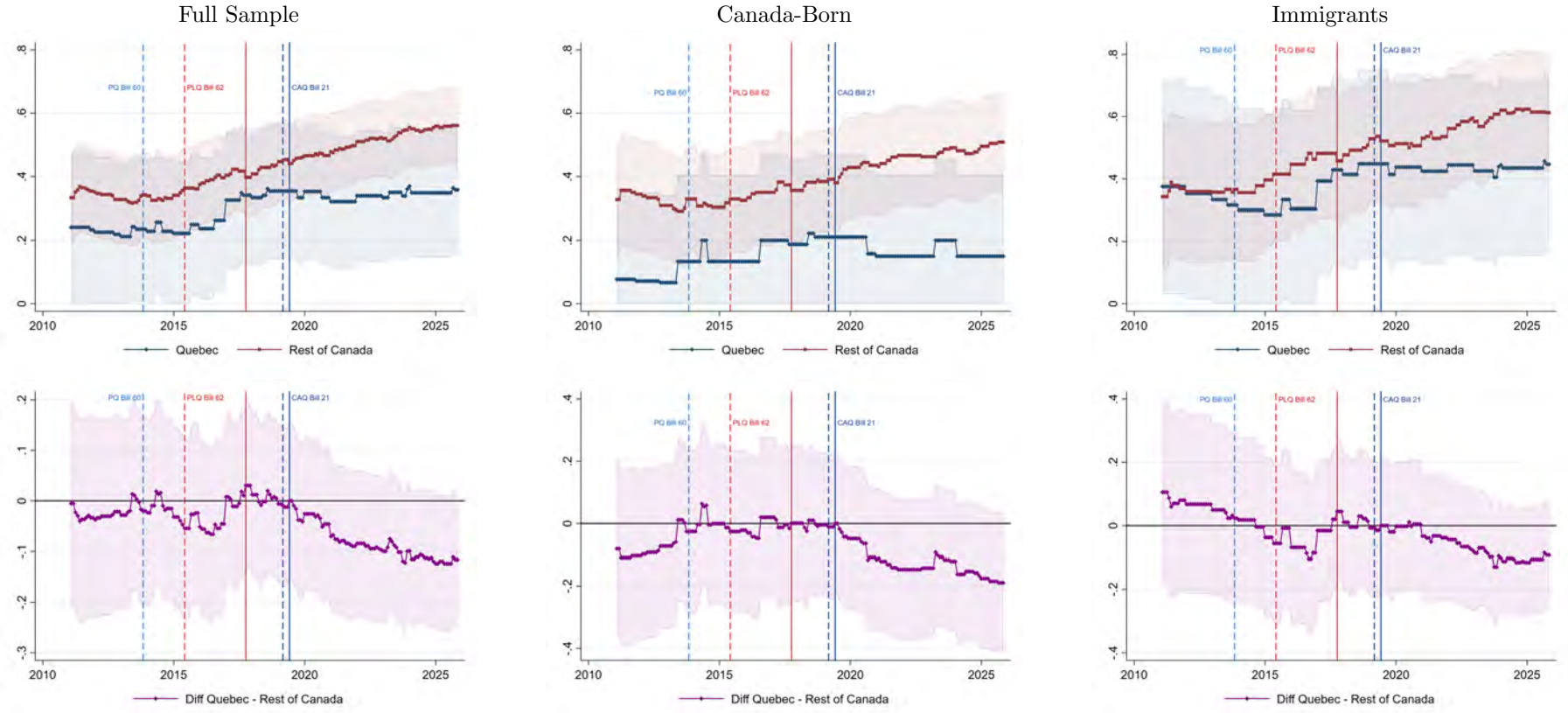


Figure 5: Veiling Likelihood of Muslim Women in Canada

Figure shows the likelihood a respondent reports having veiled at a given date. Sample includes all Muslim women person-months at dates they report having been in Canada, at ages above 18 years. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

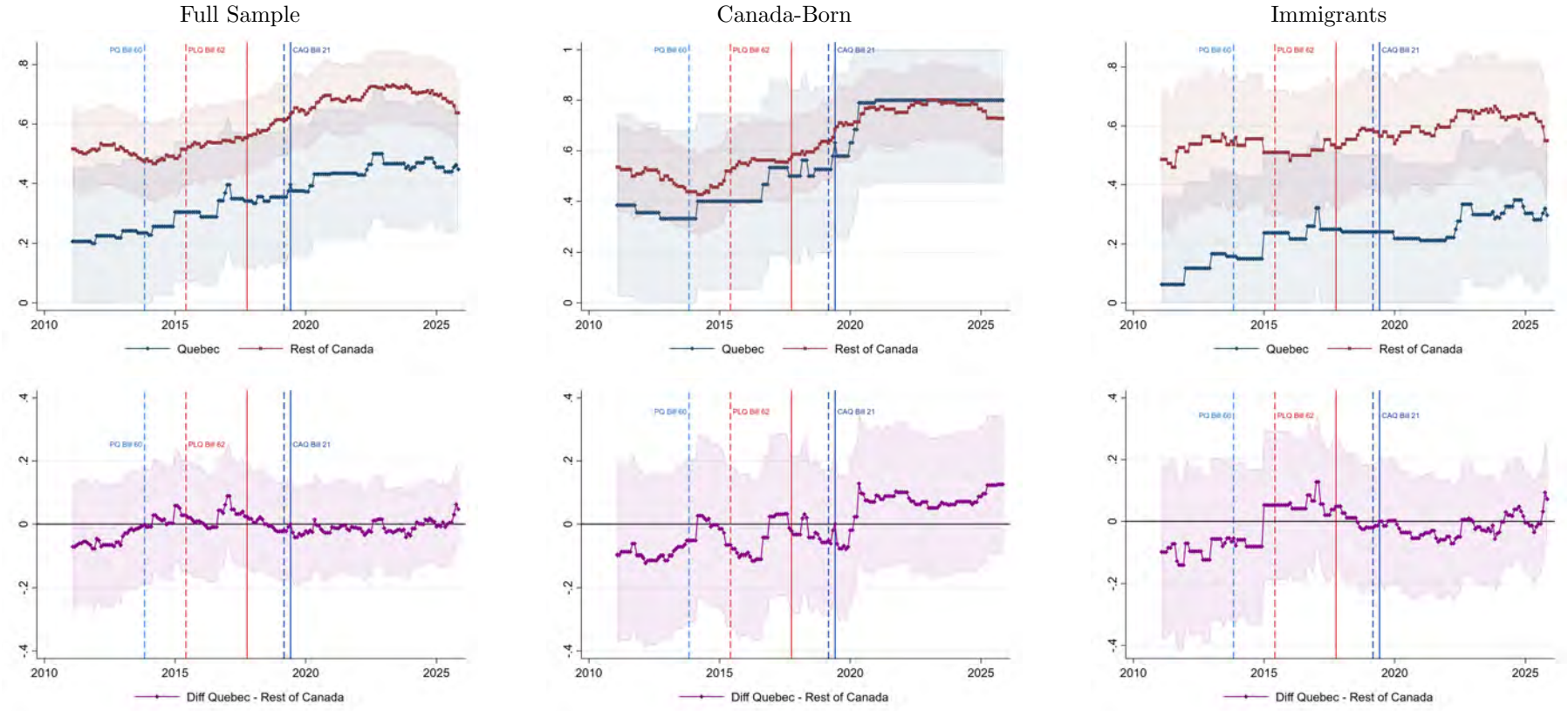


Figure 6: Working Likelihood of Muslim Women in Canada

Figure shows the likelihood a respondent reports having worked at a given date. Sample includes all Muslim women person-months at dates they report having been in Canada, at ages above 18 years. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

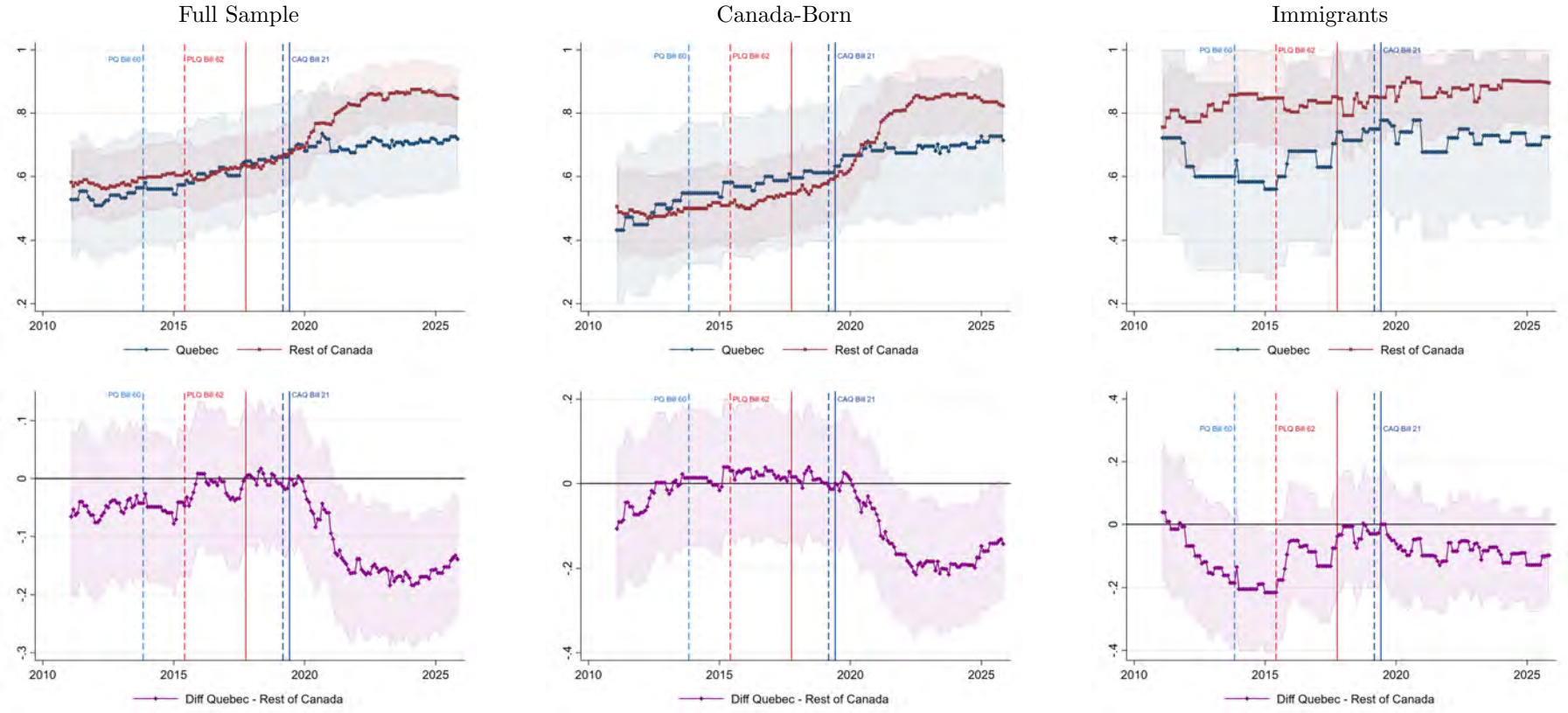


Figure 7: Working Likelihood of Muslim Men in Canada

Figure shows the likelihood a respondent reports having worked at a given date. Sample includes all Muslim man person-months at dates they report having been in Canada, at ages above 18 years. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

4.2 Difference-in-Difference Results

In this section we present difference-in-difference estimates of the effect of legislation on veiling for women, and on working for men and women separately. We consider three specifications: one with a simple textbook difference-in-difference for the passing (and simultaneous implementation) of Bill 21, another with the same plus a separate difference-in-difference estimate of the effect of the passing (without implementation) Bill 62, and a third with the same plus separate difference-in-difference estimates of the effect of the tabling of Bills 21, 62, and 60.

We show results for the full sample, as well as for Canada-born and immigrants respondents separately, and control for calendar year-month fixed effects. Since we do not pool together events, each estimate is a textbook difference-in-difference, for which two-way fixed-effect (TWFE) controls are valid.[8]

We estimate the following specifications. First, we consider a baseline specification that includes an interaction between indicators for an individual i being in Quebec, and the reported date being after June 2019:

$$y_{it} = \beta \mathbb{1}[t \geq June2019] \times \mathbb{1}[p(i) = QC] + \phi \mathbb{1}[p(i) = QC] + \tau_t + \varepsilon_{it} \tag{1}$$

where y_{it} gives the relevant binary outcome – working or veiling, or not – for the individual i residing in province $p(i)$ at date t, measured at the monthly frequency. The treatment effect estimate is given by β. ϕ absorbs the average difference between Quebec and the RoC, and τ absorbs calendar date fixed effects, obviating the need for an indicator for the treatment period for the control group.

Because we hypothesize that the channel by which Bill 21 affects behaviour among those not legally implicated by social norm signaling, prior legislation may play a similar role. We next consider a specification including an indicator for Bill 62 having been passed (although its restrictions were narrower, and it was not implemented).

$$\begin{aligned} y_{it} =& \beta_1 \mathbb{1}[t \geq June2019] \times \mathbb{1}[p(i) = QC] \\ &+ \beta_2 \mathbb{1}[t \geq Oct2017] \times \mathbb{1}[p(i) = QC] + \phi \mathbb{1}[p(i) = QC] + \tau_t + \varepsilon_{it} \end{aligned} \tag{2}$$

Here β_2 estimates the effect of Bill 62.

Finally, to signal social norms, legislation may not need even to be passed. We consider a specification including indicators for the tabling of these two bills in Quebec,

[8] Goodman-Bacon (2021), Callaway and Sant'Anna (2021), de Chaisemartin and D'Haultfoeuille (2020), Sun and Abraham (2021).

as well as the tabling of Bill 60, which was never passed.

$$
\begin{aligned}
y_{it} =& \beta_1 \mathbb{1}[t \geq June2019] \times \mathbb{1}[p(i) = QC] \\
&+ \alpha_1 \mathbb{1}[t \geq March2019] \times \mathbb{1}[p(i) = QC] \\
&+ \beta_2 \mathbb{1}[t \geq Oct2017] \times \mathbb{1}[p(i) = QC] \\
&+ \alpha_2 \mathbb{1}[t \geq June2015] \times \mathbb{1}[p(i) = QC] \\
&+ \alpha_3 \mathbb{1}[t \geq Nov2013] \times \mathbb{1}[p(i) = QC] + \phi \mathbb{1}[p(i) = QC] + \tau_t + \varepsilon_{it}
\end{aligned} \tag{3}
$$

Our baseline specifications exclude individual fixed effects. Because some respondents immigrated to Canada during the sample period, the retrospective panel is unbalanced. Including individual fixed effects would net out the fixed propensity of any immigrant to achieve a given outcome. Therefore the baseline specifications yield a treatment effect that incorporates any potential effect on migrant selection.

For Canada-born respondents, although the retrospective panel is balanced over the sample period of 2010-2025 in that it includes outcomes for all respondents in all periods, people at very young ages neither veil nor work. The youngest respondents, born in 2007, are likely to do neither as of the beginning of treatment in 2019. Suppose treatment has a definitive effect on the outcomes of such a respondent; an individual fixed-effect would then absorb the effect of treatment on that respondent. In other words, even for Canadian-born respondents, the panel is unbalanced in terms of periods with plausible variation in outcomes.

We report results for specifications including individual fixed-effects in appendix A, showing the effects on women to be nearly identical to the main results.

4.2.1 Difference-in-Difference Effects on Veiling

We perform a difference-in-difference analysis of the effect of Bill 21 on veiling and working for women, and on working for men. Treatment groups are Muslim women and men in Quebec, and control groups are Muslim women and men in the rest of Canada (RoC). The identifying assumption is that prior to the bill, veiling and working rates trended in parallel in Quebec and the RoC, and that they would have continued to do so absent the bill's passing. We cluster standard errors at the province level.

Panel A of table 9 presents difference-in-difference estimates of the effect of legislation on veiling. The estimate of interest is that on the passing (and simultaneous implementation) of Bill 21 in Quebec. The baseline TWFE specification with a single difference-in-difference design on this event yields an estimate of -0.07 using the full sample, implying that Quebecoise Muslim women reduced veiling rates by 7 percentage points following the legislation (column 1). Controlling for previous legislation

Table 6: Difference-in-Difference Effects of Bill 21

A: Women Veiling

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.070*	-0.092**	-0.075**	-0.096	-0.12**	-0.11**	-0.079***	-0.078***	-0.056***
	(0.031)	(0.027)	(0.025)	(0.056)	(0.039)	(0.042)	(0.010)	(0.014)	(0.011)
Bill 21 Tabled			-0.020**			-0.0093			-0.026*
			(0.0085)			(0.011)			(0.011)
Bill 62 Passed		0.028**	0.041***		0.034	0.011		-0.0022	0.056*
		(0.0099)	(0.0062)		(0.025)	(0.021)		(0.019)	(0.024)
Bill 62 Tabled			-0.015			-0.014			-0.039***
			(0.010)			(0.016)			(0.0082)
Bill 60 Tabled			0.0018			0.075***			-0.073**
			(0.0087)			(0.014)			(0.024)
Constant	0.43***	0.42***	0.42***	0.37***	0.37***	0.36***	0.49***	0.49***	0.51***
	(0.021)	(0.020)	(0.020)	(0.039)	(0.039)	(0.039)	(0.013)	(0.014)	(0.016)
Quebec FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	37805	37805	37805	19768	19768	19768	18037	18037	18037
R^2	0.037	0.037	0.037	0.054	0.054	0.054	0.034	0.034	0.035

B: Women Working

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.0027	-0.0057	0.0086	0.12***	0.099***	0.11***	0.0014	-0.017	0.0028
	(0.033)	(0.033)	(0.031)	(0.025)	(0.018)	(0.029)	(0.049)	(0.050)	(0.037)
Bill 21 Tabled			-0.017			-0.014			-0.023
			(0.010)			(0.020)			(0.018)
Bill 62 Passed		0.0039	-0.025		0.026	0.018		0.024**	-0.048
		(0.021)	(0.013)		(0.034)	(0.013)		(0.0074)	(0.028)
Bill 62 Tabled			0.0073			-0.033			0.092***
			(0.023)			(0.024)			(0.023)
Bill 60 Tabled			0.062***			0.071***			0.043
			(0.016)			(0.013)			(0.044)
Constant	0.56***	0.56***	0.55***	0.63***	0.63***	0.62***	0.48***	0.47***	0.46***
	(0.023)	(0.023)	(0.022)	(0.031)	(0.031)	(0.032)	(0.017)	(0.017)	(0.012)
Quebec FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	37805	37805	37805	19768	19768	19768	18037	18037	18037
R^2	0.074	0.074	0.074	0.081	0.081	0.081	0.11	0.11	0.11

C: Men Working

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.10	-0.13	-0.11	-0.13	-0.15*	-0.13	0.000094	-0.060**	-0.057**
	(0.098)	(0.071)	(0.065)	(0.11)	(0.076)	(0.070)	(0.035)	(0.022)	(0.017)
Bill 21 Tabled			-0.017*			-0.023*			-0.0031
			(0.0088)			(0.012)			(0.014)
Bill 62 Passed		0.035	0.017		0.016	-0.011		0.077*	0.079**
		(0.044)	(0.031)		(0.058)	(0.040)		(0.037)	(0.034)
Bill 62 Tabled			0.034			0.012			0.096***
			(0.030)			(0.039)			(0.013)
Bill 60 Tabled			-0.0059			0.049			-0.15***
			(0.026)			(0.028)			(0.029)
Constant	0.71***	0.70***	0.70***	0.66***	0.65***	0.65***	0.80***	0.80***	0.81***
	(0.023)	(0.022)	(0.024)	(0.032)	(0.030)	(0.032)	(0.018)	(0.019)	(0.018)
Quebec FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	49867	49867	49867	33452	33452	33452	16415	16415	16415
R^2	0.057	0.057	0.057	0.082	0.082	0.082	0.044	0.045	0.046

*** $p < .01$, ** $p < .05$, * $p < .1$

increases the magnitude of the effect but retains its sign and statistical significance. The estimates on the full sample are statistically significant for all specifications.

Past legislative events show smaller effects. Following the tabling of Bill 21 Quebec Muslim women reduced rates of veiling by two percentage points, and they increased these rates by around three to four percentage points following Bill 62's passing.

Because immigrants and Canadian-born Muslims may respond differently to legislative events, we estimate treatment effects on these subgroups separately. The former subgroup consists mostly of second- (and higher-) generation Muslims, who were born in Canada.[9] Focusing on second-generation immigrants avoids selection bias arising from the decision to immigrate, and generally yields a more homogeneous group (Naseem and Adnan 2019).

Columns 4-6 report estimates on a sample of Canada-born respondents only. Treatment effect estimates are larger in magnitude than those for the full sample, and are highly statistically significant except for specification 1. Columns 7-9 report estimates on a sample of immigrants only. Treatment effects tend to be slightly smaller in magnitude, and remain negative and statistically significant.

4.2.2 Difference-in-Difference Effects on Working

Panel B of table 9 shows results for women on working. Canada-born women in Quebec increase their likelihood of working by 10 to 12 percentage points following Bill 21. This effect is robust and highly statistically significant across specifications. Immigrants show null effects, and the aggregate effect is null in the full sample. Prior events show inconsistent effects across subgroups. Canada-born Quebecoise Muslims show an increase of 7 percentage points in working likelihood following the tabling of Bill 60, carrying into the full sample, while immigrant women show increases of around two and 9 percentage points to the passing and tabling of Bill 62 respectively – neither being present among the Canada-born and neither carrying into the full sample.

Panel C of table 9 shows effects on working for men. Canada-born men show a large decline in working following Bill 21 in the baseline specification, consistent across specifications, but statistically significant only for one specification and only weakly, at the 10% significance level. Immigrant men show negative effects for two of three specifications, of around 6 percentage points, statistically significant at the 5% level. These men also show increases in working likelihood for the tabling and passing of Bill 62, and a large decrease for the tabling of Bill 60. As the current analysis excludes individual fixed effects, this may be due in part to selection.

[9]The Canadian-born subgroup may include a small number of converts – fewer than ten respondents report European/Caucasian ethnicity, and exactly ten report "Canadian" ethnicity.

4.3 Veiling at Work

While the results above measure veiling in public, our survey asked specifically about veiling at work. If a woman reports having ever veiled in public, and reports having ever worked, we asked whether she had ever veiled at work, and the year and month at which she started. We asked if she continues to do so now, and if not, the year and month in which she stopped. A woman who reports having stopped veiling in public may report continuing to do so at work, and vice versa.

In this subsection we repeat the event study and difference-in-difference analysis for the outcome of veiling at work. We consider two sample criteria. First, we consider all women who ever worked and ever veiled. Second, we consider women who report having been currently working at the time. The former approach captures changes along both margins of working and veiling, while the second captures the intensive margin of veiling at work only (albeit incorporating selection effects for women who have exited the labour force).

Figure 8 plots event studies for the broader sample of all women. Canadian-born Quebec Muslim women show a slight decline in veiling at work compared to their counterparts in the RoC, while immigrant Quebec Muslim women show a slight increase. Neither effect is perceptible until several years after treatment. Figure 9 shows the intensive margin effect for the sample of contemporaneously working women. Effects are similarly small and delayed.

Table 7 shows difference-in-difference estimates. Negative effects for the Canada-born are small and mostly statistically insignificant across specifications for either sample. Those for immigrants are more consistently statistically significant and larger.

4.3.1 Veiling at Work Discussion

Treatment effects on veiling at work are less robust than those on veiling in general. This may reflect the smaller sample size, or the fact that women who are working tend to be older, and have already determined their veiling habits. Like the results on veiling and working in general, the current results indicate spillovers through peer effects of changes in social norms; although Bill 21 legislates on religious behaviour at work, very few of our survey respondents are new entrants into the targeted sectors.

Unlike the general veiling results, Bill 21 polarized workplace veiling between Canada-born and immigrant Muslim Quebecoises. Starting from a higher baseline, immigrants increased workplace veiling while natives weakly decreased it. The former is consistent with Hasan et al. (2023)'s finding that Quebecoise Muslims reallocated to Muslim majority workplaces, where veiling may be normalized, and/or self-employment. Given that the immigrant subgroup showed no signs of job loss, it

is unlikely to be a selection effect.

This polarization effect suggests a tradeoff between integrating those who are already closer to the mainstream of society and those on its peripheral. Made to pick a side, women may stay on the side of the fence on which they already find themselves.

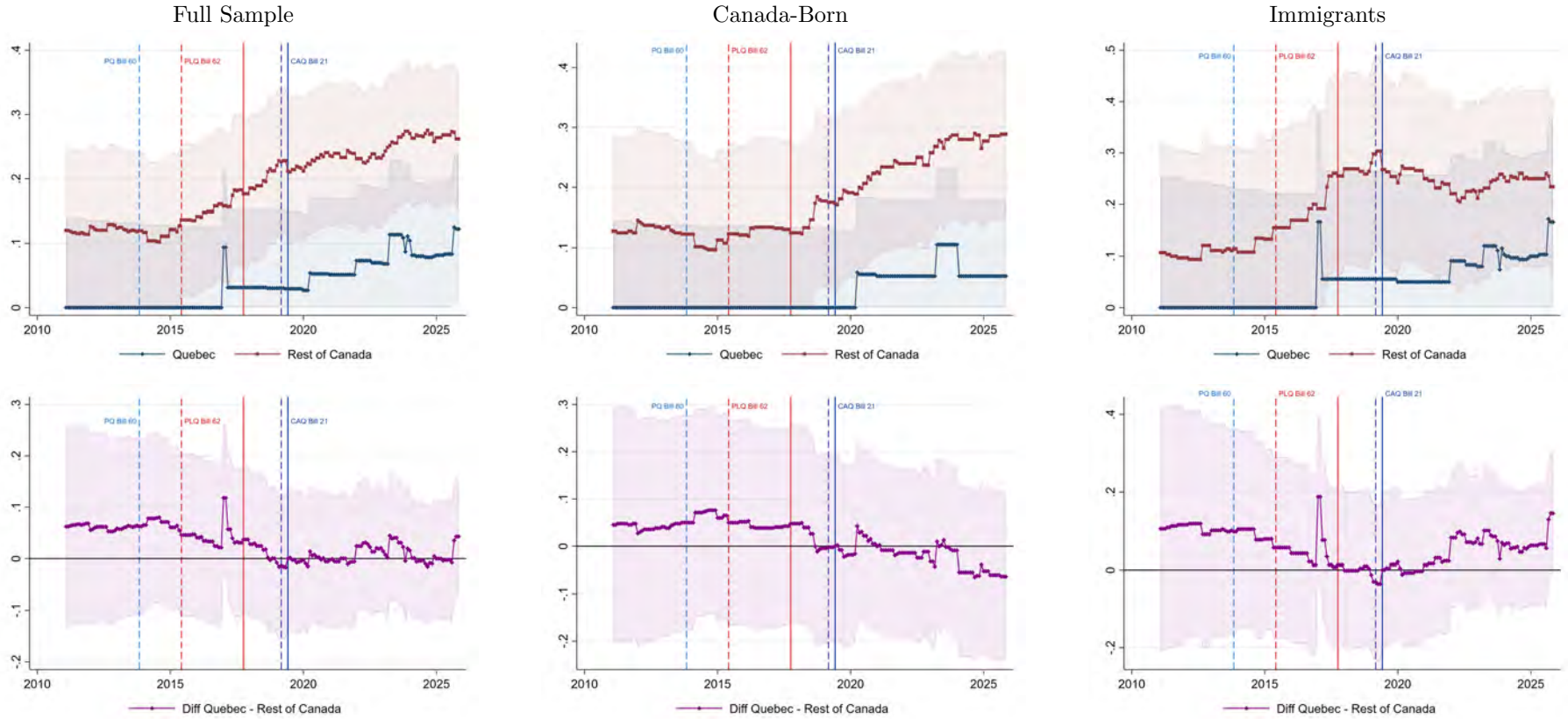


Figure 8: Veiling at Work and Working

Figure shows the likelihood a respondent reports having veiled at work at a given date. Sample includes all Muslim woman person-months at dates they report having been in Canada, at ages above 18 years, *whether or not the woman reports having been employed at that time*. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

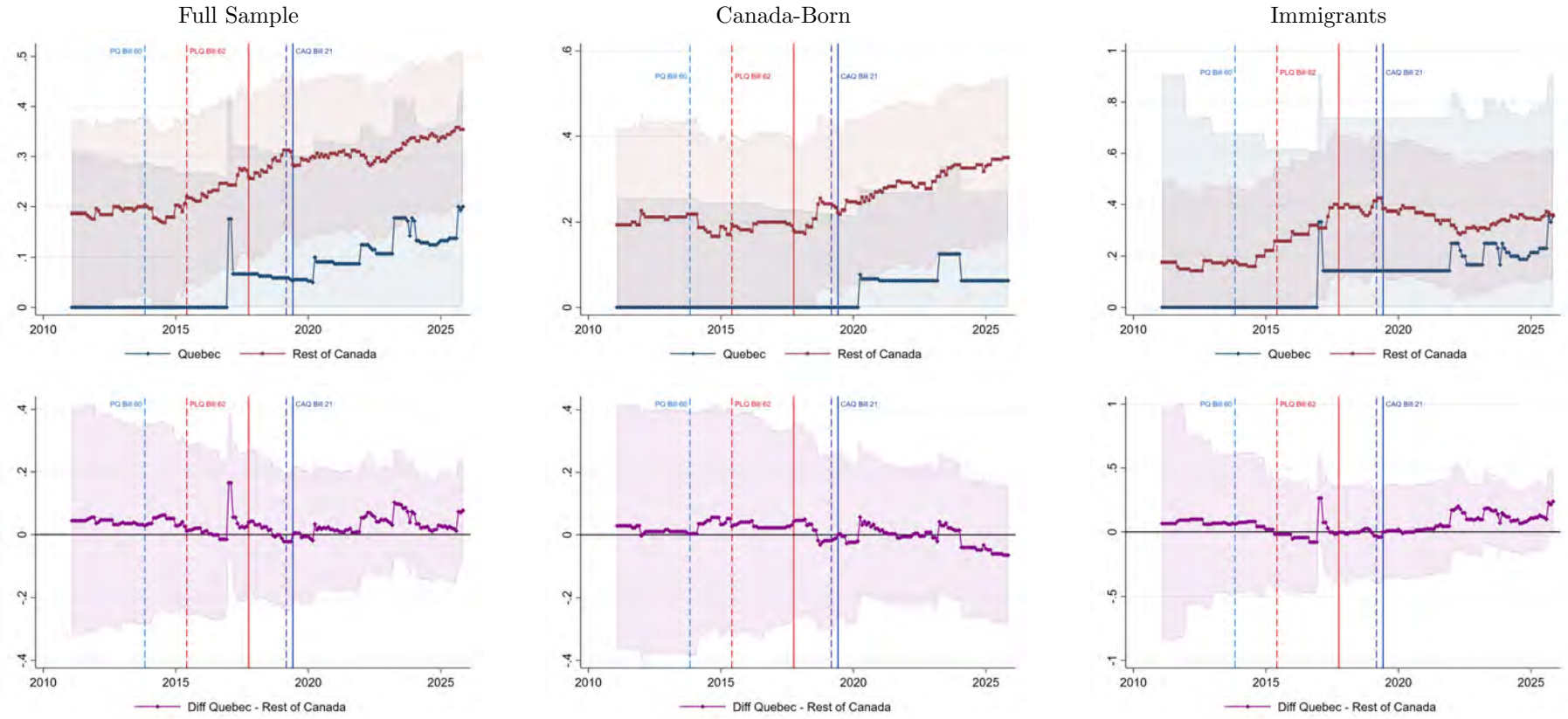


Figure 9: Veiling at Work if Working

Figure shows the likelihood a respondent reports having veiled at work if working at a given date. Sample includes all Muslim woman person-months at dates they report having been in Canada, at ages above 18 years, *for women reporting having been employed at that time*. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

Table 7: Difference-in-Difference Effects of Bill 21 on Workplace Veiling

A: Veiling at Work

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.038	-0.0036	0.023	-0.064*	-0.042	-0.020	-0.0042	0.059	0.088*
	(0.030)	(0.043)	(0.032)	(0.029)	(0.029)	(0.026)	(0.032)	(0.058)	(0.040)
Bill 21 Tabled			-0.031*			-0.027**			-0.035
			(0.014)			(0.0089)			(0.021)
Bill 62 Passed		-0.045*	-0.028		-0.027	-0.019		-0.086*	-0.051
		(0.021)	(0.015)		(0.028)	(0.013)		(0.043)	(0.044)
Bill 62 Tabled			-0.025*			-0.022			-0.038**
			(0.012)			(0.018)			(0.015)
Bill 60 Tabled			0.0069			0.025			-0.021
			(0.015)			(0.015)			(0.025)
Constant	0.18***	0.18***	0.18***	0.17***	0.17***	0.17***	0.18***	0.18***	0.19***
	(0.026)	(0.027)	(0.029)	(0.043)	(0.044)	(0.045)	(0.0090)	(0.010)	(0.013)
Living in Quebec	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	31066	31066	31066	17111	17111	17111	13955	13955	13955
R^2	0.047	0.047	0.047	0.054	0.054	0.054	0.047	0.048	0.048

B: Veiling at Work if Working

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	0.0062	0.026	0.057	-0.031	-0.019	0.0045	0.076*	0.10	0.14**
	(0.042)	(0.050)	(0.035)	(0.052)	(0.043)	(0.034)	(0.038)	(0.058)	(0.041)
Bill 21 Tabled			-0.038*			-0.029*			-0.037
			(0.018)			(0.013)			(0.021)
Bill 62 Passed		-0.027*	-0.012		-0.015	-0.014		-0.041	-0.0062
		(0.012)	(0.011)		(0.033)	(0.019)		(0.051)	(0.048)
Bill 62 Tabled			-0.016*			-0.0089			-0.041
			(0.0077)			(0.019)			(0.022)
Bill 60 Tabled			0.0026			0.022			-0.032
			(0.026)			(0.025)			(0.036)
Constant	0.25***	0.25***	0.25***	0.23***	0.23***	0.23***	0.28***	0.28***	0.29***
	(0.031)	(0.032)	(0.034)	(0.047)	(0.047)	(0.049)	(0.016)	(0.017)	(0.020)
Living in Quebec	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	21195	21195	21195	12597	12597	12597	8598	8598	8598
R^2	0.041	0.041	0.041	0.051	0.051	0.051	0.042	0.042	0.042

5 Administrative Data and Results

This section Presents supplementary evidence of Bill 21's effect on employment from administrative tax records. These complement and extend the survey results. The main advantage of the administrative data is large sample size, which beyond being statistically useful in itself also allows examination of legally-targeted subgroups of workers. The disadvantages of the administrative data are lower frequency (annual rather than monthly) and lack of information on veiling.

5.1 Administrative Data

We combine Statistic's Canada's Longitudinal Administrative Databank (LAD) with the 2021 Censuses using pre-existing linkage codes, yielding a combined dataset known as the LAD-CEN. The former consists of a 20% sample of the T1 Family File (T1FF), which contains income tax records covering over 90% of the Canadian population. This gives us detailed earnings data, as well as an indicator for employment based on whether the filer had any potentially taxable income, and the NAICS sector of employment. The 2021 Census reports self-identified religion – the same definition we use in the survey.

5.2 Empirical Specification for Administrative Data

We estimate the following event study specification:

$$y_{it} = \sum_{s=2014, s\neq 2019}^{2022} \phi_s \times \mathbb{1}[s = t] \times [p(i) = \text{QC}] + \alpha_i + \tau_t + \varepsilon_{it} \tag{4}$$

where the τ coefficients give the average outcome in the RoC in year t, and the ϕ coefficients give differential effect on the outcome in Quebec in each year between 2014 and 2022. We include individual fixed effects α_i. For this specification we limit the sample to female respondents who self-identify as Muslim in the 2021 Census.

We also consider an alternative event study specification:

$$y_{it} = \sum_{s=2014, s\neq 2019}^{2022} \phi_s \times \mathbb{1}[s = t] \times \mathbb{1}[r(i) = \text{Muslim}] + \alpha_i + \tau_t + \varepsilon_{it} \tag{5}$$

which compares Muslims to non-Muslims – $r(i)$ indicating the religion of individual i. For this specification we limit the sample to female respondents living in Quebec.

For both specifications, we conduct baseline analysis limiting the sample to respondents working in the legally-targeted sectors of public administration and education. We consider as outcomes the natural logarithm of one plus annual employment in-

come (so as to combine the intensive and extensive margins of employment) and an indicator for whether the individual had any employment income in that year.

5.3 Administrative Results

Figure 10 plots event studies both in levels and differences for Quebec Muslim women versus two alternative control groups: Muslim women in the RoC (control group A) and non-Muslim women in Quebec (control group B). We consider as outcomes binary employment status, and binary employment status in the public administration or education sectors. For all outcomes and specifications we limit the sample to Canadian-born respondents.

Panel A compares Muslim women in Quebec (the treatment group) to Muslim women in the RoC (control group A). Parallel trends for employment status appear to be violated; employment had been falling for the former group until it leveled off during the treatment period, while it grew linearly for the control group, resulting in a differential increase during the treatment period. Panel B compares the same outcome for the same treatment group to employment for non-Muslim women in Quebec (control group B). Pre-policy trends appear to decline in parallel, until leveling off for the treatment group in 2019 – while the decline continues for the control group, resulting in a relative increase for the treatment group.

Employment in the treated sectors shows a different pattern. While showing a rising pre-trend for the treatment and both control groups, the growth levels off for control group A but neither of the others during the treatment period. Neither produces a statistically significant differential compared to the pre-period. However, both comparisons show a spike in employment likelihood in the treated sectors the year before treatment, and a dip in the treatment year; this is also evident in the level plot for the treatment group.

5.4 Administrative Results Discussion

The administrative results largely agree with the survey results, showing employment gains for Quebec Muslim women following the implementation of Bill 21 in 2019. The broad employment effect holding in high-quality administrative data reinforces our survey findings. Moreover, the administrative data allowing for comparison to an alternative control group helps to rule out contemporaneous confounding shocks differentially affecting province groups as an alternative explanation for the results.

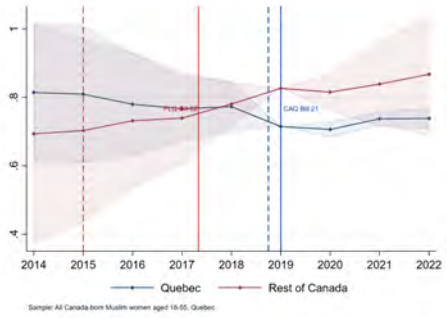
The administrative data are also rich enough to study the narrower effect on the legally targeted sectors. While we asked about sector of employment in the survey data, the sample size was too small to make meaningful comparisons. Targeted sectors

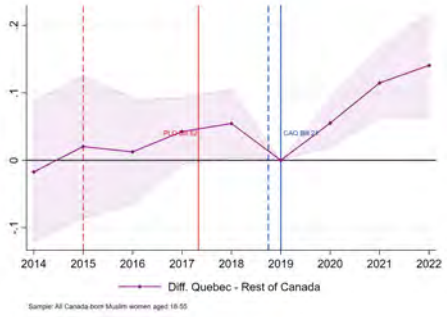
show clear behavioural effects, with a pre-policy spike consistent with anticipation of the policy, and a dip in the treatment year consistent with enforcement. As Bill 21 included a grandfather clause allowing incumbent workers to continue wearing religious symbols after implementation. The CAQ had campaigned on passing a stronger secularism law, and showed a clear lead in the polls since spring 2018.

Figure 10: Event Study Outcomes for Quebec Muslim Women

Panel A: Quebec Versus Rest of Canada

Employed





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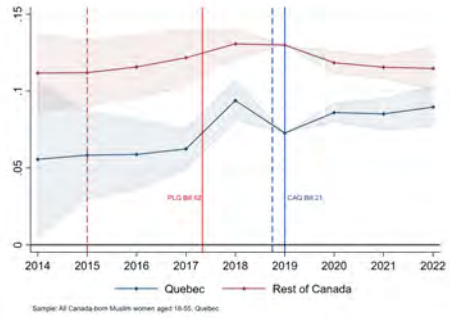
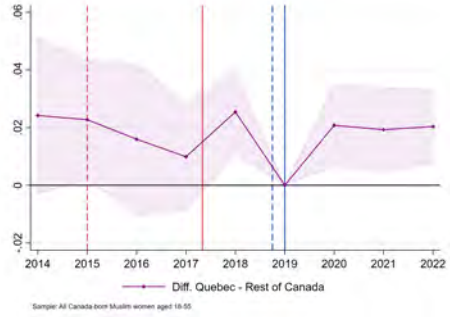
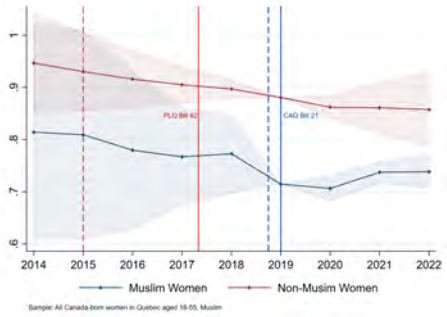
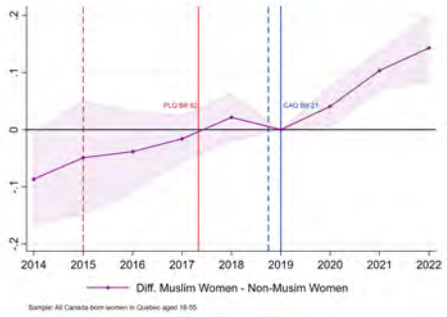




Panel B: Within Quebec, Muslims Verses Non-Muslims

Employed





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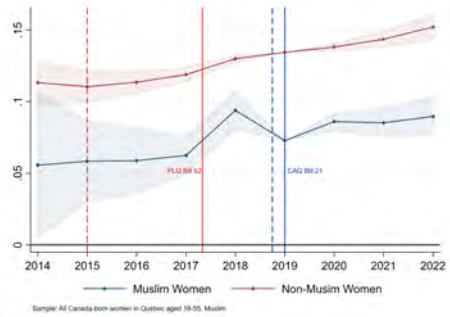

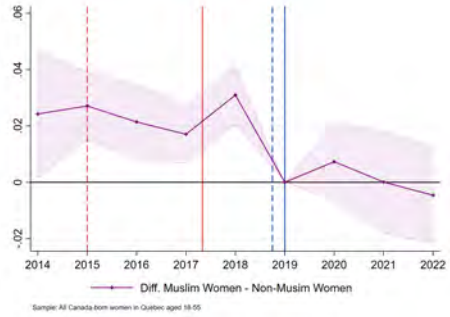

Table 8: Difference-in-Difference Effects Using Administrative Data

	(1)	(2)	(3)	(4)
	Quebec vs. Rest of Canada		Within Quebec	
	Employed	Pub./Educ.	Employed	Pub./Educ.
Treatment	0.045***	-0.001	0.107***	-0.012
	(0.016)	(0.008)	(0.006)	(0.009)
Constant	0.767***	0.105***	0.891***	0.128***
	(0.001)	(0.001)	(0)	(0.000)
Individual FE	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	No	No
R^2	0.572	0.644	0.654	0.808

Table reports difference-in-difference effects on Canadian-born Muslim women in Quebec using alternative control groups: Canadian-born Muslim women in the rest of Canada (columns 1–2) and Canadian-born non-Muslim women in Quebec (columns 3–4). Treatment period 2020-2022. Outcomes are a binary indicator of employment (columns 1 and 3), and a binary indicator of employment in the public administration or education sectors (columns 2 and 4). Source: T1 Family File linked to 2021 Census. Observation counts suppressed at request of Statistics Canada.
*** $p < .01$, ** $p < .05$, * $p < .1$.

6 Conclusion

Quebec's Bill 21 banned new entrants to public service 'positions of authority' from wearing conspicuous religious clothing and symbols. Using unique survey data, we show that this had direct effects on sorting into treated occupations before the policy took effect (anticipation effects), and spillover effects onto the working and veiling behaviour of Muslim women in the province beyond those legally affected. Compared to a control group of Muslim women in other Canadian provinces, Quebec Muslim women reduced rates of veiling and increased rates of working following the introduction of Bill 21. We corroborate the employment findings with high quality, representative administrative data.

These results are consistent with social norm signaling. The high-profile legislation was the culmination of several years of attempts to pass secularist laws in the province. Despite its narrow legal mandate, women in private sector occupations report having been asked to comply with the bill, and women report increased social pressure to conform to secular norms (Hasan et al. 2023, Shah 2024).

References

Abdelgadir, A. and Fouka, V. (2020). Political secularism and muslim integration in the west: Assessing the effects of the french headscarf ban. *American Political Science Review*, 114(3):707–723.

Bénabou, R. and Tirole, J. (2026). Laws and norms. *Journal of Political Economy*, 134(2):000–000.

Benzer, T. (2025). Removing cultural barriers to education: State-run religious schools and girls' education in türkiye. *Available at SSRN 5381237*.

Bisin, A., Patacchini, E., Verdier, T., and Zenou, Y. (2008). Are muslim immigrants different in terms of cultural integration? *Journal of the European Economic Association*, 6(2–3):445–456.

Bisin, A., Patacchini, E., Verdier, T., and Zenou, Y. (2011). Formation and Persistence of Oppositional Identities. *European Economic Review*, 55(8):1046–1071.

Callaway, B. and Sant'Anna, P. H. C. (2021). Difference-in-differences with multiple time periods. *Journal of Econometrics*, 225(2):200–230.

Carvalho, J.-P. (2013). Veiling. *Quarterly Journal of Economics*, 128(1):337–370.

Corekcioglu, G. (2021). Unveiling the effects of a headscarf ban: Evidence from municipal jobs in turkey. *Journal of Comparative Economics*, 49(2):382–404.

de Chaisemartin, C. and D'Haultfoeuille, X. (2020). Two-way fixed effects estimators

with heterogeneous treatment effects. *American Economic Review*, 110(9):2964–2996.

Elbourne, E., Manning, K., and Kifell, Z. (2022). The impact of law 21 on québec students in law and education: Executive summary of findings. *Montreal: Concordia University. https://www. concordia. ca/content/dam/concordia/now/docs/The-Impact-of-Law-21-on-Quebec-Students-in-Law-and-Education-Executive-Summary. pdf.*

Environics Institute (2016). Survey of muslims in canada. Technical report.

Fernández-Reino, M., Di Stasio, V., and Veit, S. (2023). Discrimination unveiled: a field experiment on the barriers faced by muslim women in germany, the netherlands, and spain. *European Sociological Review*, 39(3):479–497.

Fouka, V. (2020). Backlash: The Unintended Effects of Language Prohibition in US Schools after World War I. *Review of Economic Studies*, 87(1):204–239.

Ghumman, S. and Ryan, A. M. (2013). Not welcome here: Discrimination toward women who wear the muslim headscarf. *Journal of Applied Social Psychology*, 43(1):1–16.

Goodman-Bacon, A. (2021). Difference-in-differences with variation in treatment timing. *Journal of Econometrics*, 225(2):254–277.

Gould, E. D. and Klor, E. F. (2016). The Long-Run Effect of 9/11: Terrorism, Backlash, and the Assimilation of Muslim Immigrants in the West. *The Economic Journal*, 126(597):2064–2114.

Hasan, N. Z., El Bakir, L., and Badawy, Y. (2023). Social discord and second-class citizenship: The impact of bill 21 on québec muslim women. Funded by Women and Gender Equality Canada.

Institute of Islamic Studies, University of Toronto (2025). Canadian muslim demographics, socioeconomics, social attitudes, and experiential outcomes. Prepared in collaboration with Islamic Relief Canada.

Jacquet, A. and Montpetit, S. (2025). Veiling and the economic integration of Muslim women in France. Working paper.

Koopmans, R., Veit, S., and Yemane, R. (2019). Taste or statistics? a correspondence study of ethnic, racial and religious labour market discrimination in germany. *Ethnic and Racial Studies*, 42(16):233–252.

Maurin, É. and Navarrete H, N. (2023). Behind the veil: the effect of banning the islamic veil in schools. *Economic Policy*, 38(113):63–98.

Montpetit, S. (2025). Behind the veil of origin: Revisiting the impacts of the French headscarf ban in schools. Working paper.

Naseem, J. and Adnan, W. (2019). Being a second generation muslim woman in the french labour market: Understanding the dynamics of (visibility of) religion and gender in labour market access, outcomes and experiences. *Research in Social Stratification and Mobility*, 61:79–93.

Potvin, M., Low, B., Doré, E., Tremblay, S., Lefrancois, D., Demers, S., and Steinbach, M. (2024). Survey of the effects of law 21 on students and staff in faculties of education in québec. *Journal of Canadian Studies*, 58(1):52–77.

Shah, S. (2022). Voices that matter: An intersectional analysis of canadian muslim women.

Shah, S. (2024). Still overqualified and underemployed? canadian muslim women's experiences of employment barriers and facilitators. ASPIRE Study; collaboration with MiCDI, University of Toronto.

Shofia, N. (2022). Why veil? religious headscarves and the public role of women.

Sun, L. and Abraham, S. (2021). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. *Journal of Econometrics*, 225(2):175–199.

Valfort, M.-A. (2017). Has france a problem with muslims? evidence from a field experiment in the labour market. *Work Pap.*

Weichselbaumer, D. (2020). Multiple discrimination against female immigrants wearing headscarves. *ILR Review*, 73(3):600–627.

A Robustness

This appendix presents robustness analysis for the main survey results. We recreate the event study and difference-in-difference analysis, now including individual fixed effects in all specifications. Although individual fixed-effect specifications have become preferred in many settings, they are not ideal in ours, as our estimation samples are unbalanced: respondents age into the sample at age 18, and age out of the sample after age 55 (see section 3 for details). Since younger individuals in the treatment group are treated for all of their adult life, individual fixed effects then remove some of the variation that we want to identify. The treatment effects in individual fixed-effect specifications then identify within-person behavioural changes, partial to changes between cohorts. Nonetheless, the general qualitative results agree with the baseline specifications in the main text, though magnitudes are slightly smaller.

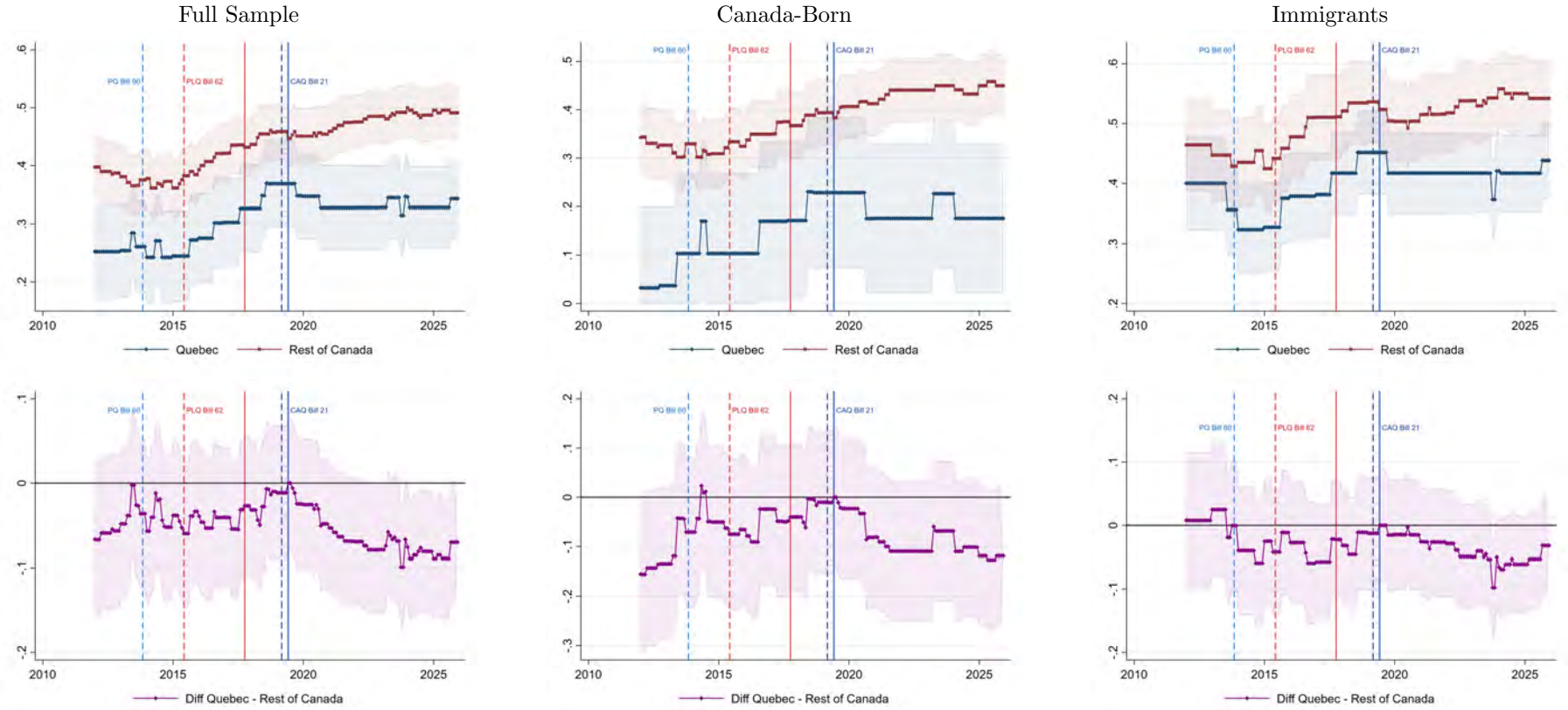

Figure 11: Veiling Likelihood of Muslim Women (Partial to Individual Fixed Effects)

Figure shows the likelihood a respondent reports having veiled at a given date. Sample includes all Muslim women person-months at dates they report having been in Canada, at ages above 18 years. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

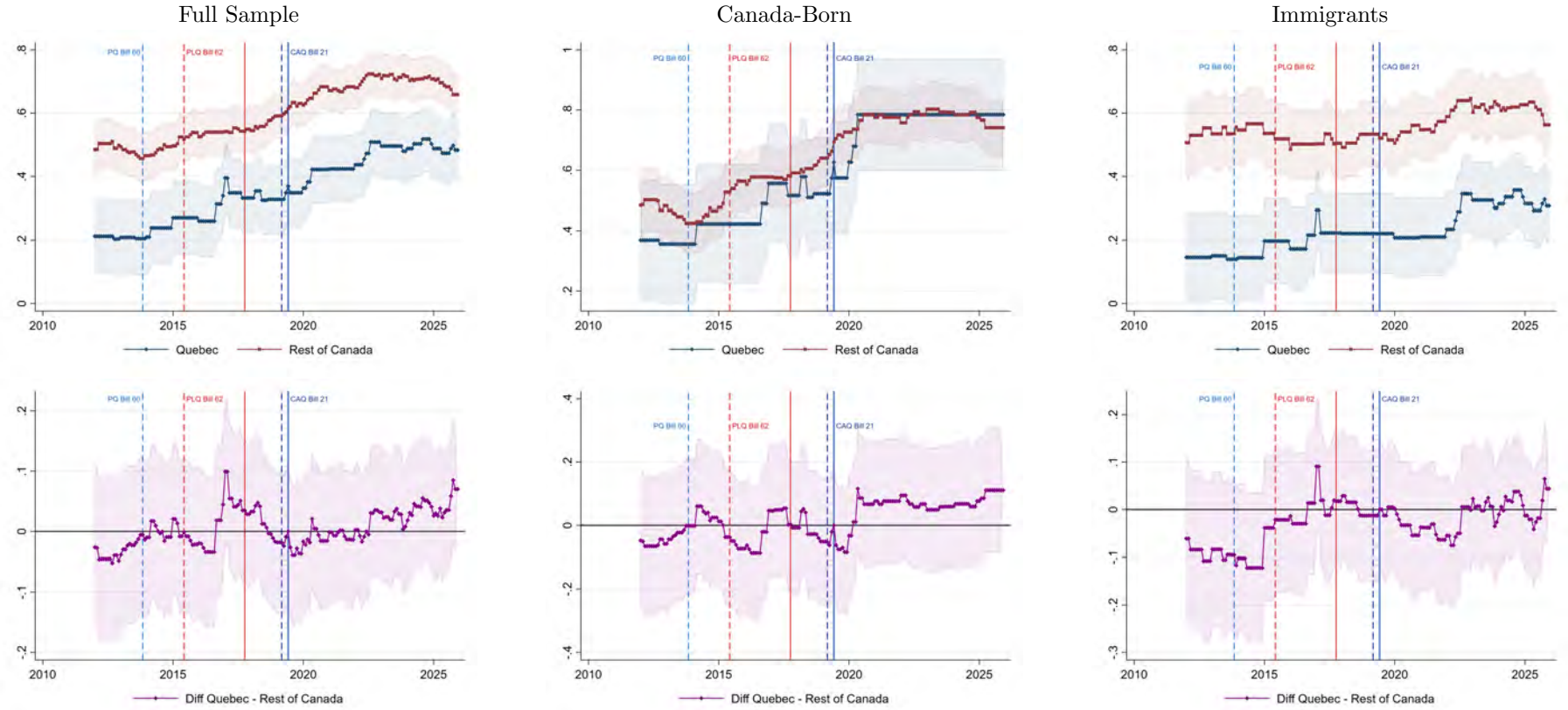

Figure 12: Working Likelihood of Muslim Women (Partial to Individual Fixed Effects)

Figure shows the likelihood a respondent reports having worked at a given date. Sample includes all Muslim women person-months at dates they report having been in Canada, at ages above 18 years. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

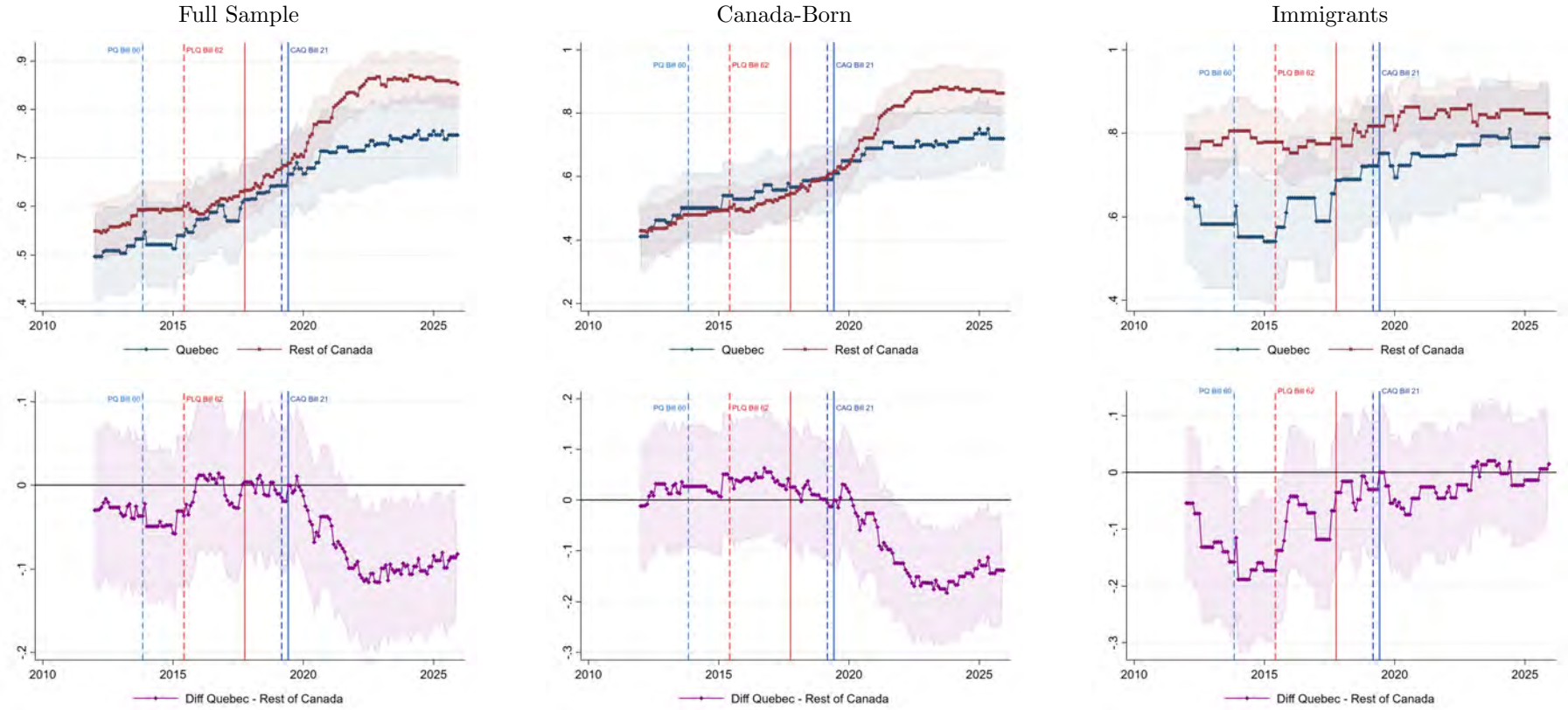

Figure 13: Working Likelihood of Muslim Men (Partial to Individual Fixed Effects)

Figure shows the likelihood a respondent reports having worked at a given date. Sample includes all Muslim men person-months at dates they report having been in Canada, at ages above 18 years. The full panel is unbalanced, with immigrants entering the sample at reported dates of immigration and Canada-born respondents entering the sample as they reach the age of majority. Vertical dashed lines indicate dates at which the Quebec National Assembly tabled secularist legislation (bills 60, 62, and 21 respectively) while solid vertical lines indicate when these bills passed (bills 62 and 21).

Table 9: Difference-in-Difference Effects of Bill 21 – Individual Fixed-Effects

A: Women Veiling

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.028	-0.047	-0.055*	-0.017	-0.066*	-0.077**	-0.022**	-0.021	-0.029*
	(0.024)	(0.026)	(0.024)	(0.035)	(0.033)	(0.031)	(0.0061)	(0.013)	(0.014)
Bill 21 Tabled			0.0099***			0.013**			0.0095***
			(0.0026)			(0.0041)			(0.0013)
Bill 62 Passed		0.026***	0.019**		0.064***	0.031**		-0.0011	0.0092
		(0.0060)	(0.0079)		(0.011)	(0.011)		(0.013)	(0.021)
Bill 62 Tabled			-0.00058			-0.013			0.0075
			(0.015)			(0.013)			(0.022)
Bill 60 Tabled			0.013			0.088***			-0.043**
			(0.015)			(0.020)			(0.012)
Constant	0.42***	0.42***	0.42***	0.36***	0.36***	0.35***	0.48***	0.48***	0.49***
	(0.0029)	(0.0028)	(0.0021)	(0.0028)	(0.0029)	(0.0019)	(0.0010)	(0.0011)	(0.00080)
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	37804	37804	37804	19768	19768	19768	18036	18036	18036
R^2	0.85	0.85	0.85	0.80	0.80	0.81	0.90	0.90	0.90

B: Women Working

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.030	-0.021	0.0098	0.055	0.055***	0.082**	-0.038	-0.040	-0.019
	(0.042)	(0.026)	(0.026)	(0.036)	(0.014)	(0.027)	(0.070)	(0.042)	(0.032)
Bill 21 Tabled			-0.036			-0.033			-0.025
			(0.020)			(0.033)			(0.014)
Bill 62 Passed		-0.012	-0.011		-0.00036	0.0055		0.0026	-0.014***
		(0.028)	(0.0078)		(0.037)	(0.014)		(0.040)	(0.0035)
Bill 62 Tabled			-0.0036			-0.047*			0.066
			(0.023)			(0.024)			(0.034)
Bill 60 Tabled			0.017			0.068***			-0.050
			(0.018)			(0.013)			(0.042)
Constant	0.56***	0.56***	0.56***	0.63***	0.63***	0.63***	0.48***	0.48***	0.48***
	(0.0051)	(0.0065)	(0.010)	(0.0029)	(0.0042)	(0.0061)	(0.012)	(0.015)	(0.026)
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	37804	37804	37804	19768	19768	19768	18036	18036	18036
R^2	0.70	0.70	0.70	0.64	0.64	0.64	0.75	0.75	0.75

C: Men Working

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full Sample			Canada-Born			Immigrants		
Bill 21 Passed	-0.034	-0.051	-0.037	-0.087	-0.086	-0.066	0.10***	0.043**	0.043**
	(0.075)	(0.060)	(0.057)	(0.085)	(0.068)	(0.065)	(0.030)	(0.017)	(0.016)
Bill 21 Tabled			-0.016**			-0.024**			0.00035
			(0.0060)			(0.0082)			(0.013)
Bill 62 Passed		0.022	0.0052		-0.00082	-0.022		0.083*	0.064*
		(0.027)	(0.020)		(0.030)	(0.026)		(0.040)	(0.032)
Bill 62 Tabled			0.041*			0.018			0.099***
			(0.022)			(0.023)			(0.015)
Bill 60 Tabled			-0.018			0.029			-0.11***
			(0.026)			(0.030)			(0.024)
Constant	0.70***	0.70***	0.69***	0.65***	0.65***	0.64***	0.78***	0.78***	0.79***
	(0.0097)	(0.011)	(0.010)	(0.0097)	(0.011)	(0.0095)	(0.0049)	(0.0077)	(0.010)
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	49866	49866	49866	33452	33452	33452	16414	16414	16414
R^2	0.69	0.69	0.69	0.68	0.68	0.68	0.70	0.70	0.70

*** $p < .01$, ** $p < .05$, * $p < .1$

B Survey Questionnaire

1. Do you consent to participate in this survey?
2. Which province or region do you live in?
3. What is your gender?
4. What is your age?
5. In which month were you born?
6. Which of the following best describes your religion or religious background?
7. What are the first THREE digits of your postal code?
8. What is your marital status?
9. Which of the following best describes your spouse or partner's religion or religious background?
10. How many children do you have?
11. How many of your children are boys?
12. How many of your children are girls?
13. What is the highest level of education you have completed?
14. Were you born in Canada or another country?
15. How many years in total have you lived in Canada?
16. With what ethnic or racial group do you most closely identify?
17. Have you ever been employed (including self-employed)?
18. Year
19. Month
20. Are you working now?
21. Year
22. Month
23. Why did you stop working outside the home?
24. Would you prefer to be working outside the home now?
25. Were you employed (including self-employed)?
26. Was your job primarily at home or outside the home?
27. What were your usual weekly hours worked?
28. What was your occupation?
29. Did you work in the public or private sector?

30. In June 2019, what was your personal income before taxes?
31. In June 2019, what was your total household income before taxes approximately?
32. Have you ever worn a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) in public?
33. Year
34. Month
35. Do you still wear it now?
36. Year
37. Month
38. Why did you stop wearing it?
39. Why do you choose to wear it?
40. Why do you choose to not wear it?
41. Have you ever worn a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) at work?
42. Year
43. Month
44. Do you still wear it at work now?
45. Year
46. Month
47. Why did you stop wearing it at work?
48. Why do you choose to wear it at work?
49. Why do you choose to not wear it at work?
50. Are there legal or social restrictions against wearing a hijab, niqab, or chador at work?
51. Is this in relation to Bill 21?
52. Were there legal or social restrictions against wearing a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) at work?
53. Was this in relation to Bill 21?
54. Did you stop veiling at work after the introduction of Bill 21?
55. Did you change jobs or stop working after the introduction of Bill 21?
56. Was your wife/partner employed?
57. Was their job at home or outside the home?

58. What were your wife/partner's usual weekly hours worked?
59. What was your wife/partner's occupation?
60. Did they work in the public or private sector?
61. Did your wife/partner wear a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) in public?
62. Why did she wear it?
63. Why did she not wear it?
64. When did your wife/partner begin wearing it?
65. Year
66. Month
67. Did your wife/partner wear a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) at work?
68. Were there legal or social restrictions against wearing a hijab, niqab, or chador at her work?
69. Was this in relation to Bill 21?
70. Had your wife/partner ever worn a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) in public?
71. Year
72. Month
73. Why did she stop wearing it?
74. Did your wife/partner stop veiling at work after the introduction of Bill 21?
75. Did your wife/partner change jobs after the introduction of Bill 21?
76. Do your daughter(s) wear a hijab (scarf covering hair), niqab (veil), or chador (full head scarf) in public?
77. For those who do not, what is the reason for not doing so?
78. When jobs are scarce, men should have more right to a job than women.
79. Do you agree or disagree with the following statement: "Muslim women should wear a hijab, niqab, or chador in public."
80. Out of 100 randomly selected Muslim women in your province, how many do you think would agree with the statement: "Muslim women should wear a hijab, niqab, or chador in public."
81. Out of 100 randomly selected Muslim men in your province, how many do you think would agree with the statement: "Muslim women should wear a hijab, niqab, or chador in public."

82. Bill 21 prohibits certain public sector employees from wearing religious symbols, including the veil. Considering a Muslim woman who was working in the public sector subject to Bill 21 and usually wore a veil, what do you think is the most appropriate response?

83. Which opinion do you believe is most prevalent among Muslim women in your province?

84. When it comes to making major family decisions, who has the final say – you or your (wife/partner)? By "major family decisions" we mean things like when to retire, where to live, or how much money to spend on a major purchase.

85. When it comes to making major family decisions, who has the final say – you or your (husband/partner)? By "major family decisions" we mean things like when to retire, where to live, or how much money to spend on a major purchase.