

# For Online Publication

## Appendix A Circulaire 1649 du 20 septembre 1994.

Texte adressé aux recteurs, aux inspecteurs d'académie, directeurs des services départementaux de l'Education Nationale et aux chefs d'établissement.

Neutralité de l'enseignement public : port de signes ostentatoires dans les établissements scolaires.

Depuis plusieurs années, de nombreux incidents sont intervenus dans les établissements scolaires, à l'occasion de manifestations spectaculaires d'appartenance religieuse ou communautaire.

Les chefs d'établissements et les enseignants ont constamment manifesté leur souhait de recevoir des instructions claires.

Il m'a donc paru nécessaire de vous apporter les précisions suivantes.

En France, le projet national et le projet républicain sont confondus autour d'une certaine idée de la citoyenneté. Cette idée française de la nation et de la République est, par nature, respectueuse de toutes les convictions, en particulier des convictions religieuses, politiques et des traditions culturelles. Mais elle exclut l'éclatement de la nation en communautés séparées, indifférentes les unes aux autres, ne considérant que leurs propres règles et leurs propres lois, engagées dans une simple coexistence. La nation n'est pas seulement un ensemble de citoyens détenteurs de droits individuels. Elle est une communauté de destin.

Cet idéal se construit d'abord à l'école. L'école est, par excellence, le lieu d'éducation et d'intégration où tous les enfants et tous les jeunes se retrouvent, apprennent à vivre ensemble et à se respecter. La présence, dans cette école, de signe et de comportement qui montreraient qu'ils ne pourraient pas se conformer aux mêmes obligations, ni recevoir les mêmes cours et suivre les mêmes programmes, serait une négation de cette mission. À la porte de l'école doivent s'arrêter toutes les discriminations, qu'elles soient de sexe, de culture ou de religion.

Cet idéal laïque et national est la substance même de l'école de la République et le fondement du devoir d'éducation civique qui est le sien.

C'est pourquoi il n'est pas possible d'accepter à l'école la présence de signes si ostentatoire

que leur signification est précisément de séparer certains élèves des règles de vie commune de l'école. Ces signes sont, en eux-mêmes, des éléments de prosélytisme, à plus forte raison lorsqu'ils s'accompagnent de remise en cause de certains cours ou de certaines disciplines, qu'ils mettent en jeu la sécurité des élèves ou qu'ils entraînent des perturbation dans la vie en commun de l'établissement.

Je vous demande donc de bien vouloir proposer aux conseils d'administration, dans la rédaction des règlements intérieurs l'interdiction de ces signes ostentatoires, sachant que la présence de signes plus discrets, traduisant seulement l'attachement à une conviction personnelle, ne peut faire l'objet des mêmes réserves, comme l'ont rappelé le Conseil d'État et la jurisprudence administrative.

Je vous demande aussi de ne pas perdre de vue que notre devoir est d'abord l'éducation.

Aucune entreprise éducative n'est concevable sans énoncé préalable d'une règle claire. Mais l'adhésion à la règle est souvent le résultat d'un travail de persuasion.

Les recteurs et inspecteurs d'académie soutiendront donc tout les efforts qui seront les vôtres pour convaincre au lieu de contraindre, pour rechercher des médiations avec les familles, et pour prouver aux élèves qui seraient en cause que notre démarche est une démarche de respect. L'accès au savoir est le moyen privilégié de la construction d'une personnalité autonome. Notre mission est de continuer de l'offrir à tous et à toutes.

Je vous prie de ne pas omettre d'informer toutes les familles des règlements intérieurs adoptés par les conseils d'administration des établissements.

Je vous prie de demander aux enseignants de toutes disciplines aux personnels d'éducation et à l'ensemble de vos équipes, d'expliquer aux élèves dont ils ont la charge ce double mouvement de respect des convictions et de fermeté dans la défense du projet républicain de notre pays.

Responsables de vos établissements, en liaison avec les équipes pédagogiques, représentants du ministre, je vous confirme que vous avez toute ma confiance pour rechercher le meilleurs rythme et les meilleures conditions d'applications de ces principes.

Annexe : Proposition d'article à insérer dans le règlement intérieur des établissements.

“Le port par les élèves de signes discrets manifestant leur attachement personnel à des convictions, notamment religieuses, est admis dans l'établissement. Mais les signes ostentatoires, qui constituent en eux-mêmes des éléments de prosélytisme ou de discrimination,

sont interdits. Sont interdits aussi les attitudes provocatrice, les manquements aux obligations d'assiduité et de sécurité, les comportements susceptibles de constituer des pressions sur d'autres élèves, de perturber le déroulement des activités d'enseignement ou de troubler l'ordre dans l'établissement. ”

## Appendix B Tables

Table B1: Characteristics of Muslim and non-Muslim, for cohorts born between 1971 and 1990

	Women		Men	
	Muslim (1)	non-Muslim (2)	Muslim (3)	non-Muslim (4)
Baccalauréat(any)	0.594	0.680	0.480	0.592
Born in Paris department	0.093	0.036	0.105	0.036
Maghreb father	0.767	0.000	0.777	0.000
African father	0.135	0.000	0.128	0.000
Middle-eastern father	0.098	0.000	0.095	0.000
French mother	0.212	0.975	0.220	0.975
Muslim mother	0.779	0.006	0.766	0.005
Non-Muslim foreign mother	0.009	0.020	0.013	0.019
Skilled father	0.208	0.455	0.226	0.457
N	6204	93960	5604	90166

*Notes:* This table reports descriptive statistics for French-born individuals aged 21 or above and born between 1971 and 1990. Column (1) (resp. (2)) reports the mean of the different variables for women whose father's nationality at birth is from a predominantly Muslim (resp. French) country. Column (3) (resp. (4)) reports the mean of the different variables for men whose father's nationality at birth is from a predominantly Muslim (resp. French) country.

Source: INSEE, LFS 2005-2019.

Table B2: Characteristics of Muslim and non-Muslim, for cohorts born between 1983 and 1998

	Women		Men	
	Muslim (1)	non-Muslim (2)	Muslim (3)	non-Muslim (4)
Baccalauréat(any)	0.662	0.712	0.526	0.631
Born in Paris department	0.100	0.036	0.112	0.036
Maghreb father	0.653	0.000	0.669	0.000
African father	0.202	0.000	0.196	0.000
Middle-eastern father	0.145	0.000	0.135	0.000
French mother	0.239	0.966	0.251	0.967
Muslim mother	0.753	0.011	0.738	0.009
Non-Muslim foreign mother	0.007	0.023	0.011	0.024
Skilled father	0.269	0.483	0.266	0.488
N	3616	41934	3330	41710

*Notes:* This table reports descriptive statistics for French-born individuals aged 21 or above and born between 1983 and 1998. Column (1) (resp. (2)) reports the mean of the different variables for women whose father's nationality at birth is from a predominantly Muslim (resp. French) country. Column (3) (resp. (4)) reports the mean of the different variables for men whose father's nationality at birth is from a predominantly Muslim (resp. French) country. Source: INSEE, LFS 2005-2019.” Source: INSEE, LFS 2005-2019.

Table B3: High school graduation probability, by gender and birth cohort

	Cohorts 1971-1974 (1)	Cohorts 1987-1990 (2)
<i>Panel A: women</i>		
Muslim (a)	0.491 (0.017)	0.637 (0.015)
Non-Muslim (b)	0.625 (0.003)	0.705 (0.004)
(a)-(b)	-0.134 (0.017)	-0.068 (0.015)
$[(a) - (b)]_t - [(a) - (b)]_{t-1}$	0.066	
P-value	0.003	
<i>Panel B: men</i>		
Muslim (a)	0.416 (0.018)	0.517 (0.016)
Non-Muslim (b)	0.541 (0.003)	0.623 (0.004)
(a)-(b)	-0.125 (0.018)	-0.107 (0.016)
$[(a) - (b)]_t - [(a) - (b)]_{t-1}$	0.018	
P-value	0.447	

*Notes:* This table shows the proportion of high school graduates among French-born individuals aged 21 or above, separately for women (panel A) and men (panel B). Column (1) displays results for individuals born between 1971 and 1974, while column (2) displays results for individuals born between 1987 and 1990. In each panel, row (a) refers to the Muslim group, row (b) to the non-Muslim group, and row (a)-(b) shows the difference between the Muslim and non-Muslim groups. The last two rows of each panel show the difference in (a)-(b) between the two groups of birth cohorts and its corresponding p-value. Standard errors are reported in parentheses. Source: INSEE, LFS 2005-2019.

Table B4: Balancing checks for cohorts born between 1971 and 1990

	Survey date		Skilled father		Born in Paris		Female respondent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panel A: women</i>								
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	-0.016 (0.455)		0.007 (0.015)		0.002 (0.004)			
Muslim $\times$ dosage		0.341 (0.486)		0.018 (0.017)		-0.002 (0.005)		
N	100164	100164	93016	93016	99541	99541		
<i>Panel B: men</i>								
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	-0.773* (0.450)		0.008 (0.014)		0.000 (0.011)			
Muslim $\times$ dosage		-0.843* (0.456)		0.004 (0.016)		0.003 (0.014)		
N	95770	95770	89240	89240	95167	95167		
<i>Panel C: men and female sample</i>								
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	-0.372 (0.302)		0.008 (0.012)		0.001 (0.005)		-0.006 (0.009)	
Muslim $\times$ dosage		-0.217 (0.325)		0.012 (0.014)		0.000 (0.007)		-0.001 (0.010)
N	195934	195934	182256	182256	194708	194708	195934	195934

*Notes:* This table refers to our working samples of French-born individuals aged 21 and above who were born between 1971 and 1990. This table shows the results of regressing a series of pre-determined variables on birth cohort and father's nationality at birth fixed effect. Columns (1), (3), (5) and (7) include and report the interaction between a Muslim dummy and a dummy indicating that the respondent was aged 14 years or below at  $t_0 = 1994$ . Columns (2), (4), (6) and (8) include and report the interaction between a Muslim dummy and a dosage variable equal to 0, 0.25, 0.50, 0.75 or 1, depending on whether individuals were aged 15 years or above, 14 years, 13 years, 12 years or 11 years or below at  $t_0$ . Panel A (resp. B) displays results for women (resp. men). Panel C displays results for a sample that compresses both men and women. *Survey date* is a continuous integer variable indicating the time of the survey; *Skilled father* is dummy variable indicating whether the individual's father occupation was skilled non-manual; *Born in Paris* is a dummy variable indicating whether the individual was born in Paris; and *Female respondent* is a dummy variable indicating whether the individual is a women. Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level. Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ . Source: INSEE, LFS 2005-2019.

Table B5: Effect of 1994 circular on the probability of 15-18 years old women not responding to subsequent surveys and the fraction of female respondents in the household.

	Mising 2 <sup>nd</sup> LFS wave (1)	Mising 3 <sup>rd</sup> LFS wave (2)	Fraction of women in the household (3)
Muslim $\times 1\{\text{survey year} \geq 1994\}$	0.005 (0.031)	0.003 (0.041)	
Muslim $\times 1\{\text{survey year} \geq 1994\}$			0.039 (0.032)
Observations	10,309	10,309	18,977
R-squared	0.488	0.465	0.000
Dep var Muslim 1990-93	0.143	0.269	0.481
Dep var non-Muslim 1990-93	0.153	0.298	0.501

*Notes:* This table refers to a sample of French-born individuals who answered the first wave of the LFS between 1990 and 1999 and who were aged between 15-18. Columns (1) and (2) show the results of regressing the probability that the respondent did not appear in the 2<sup>nd</sup> and 3<sup>rd</sup> LFS waves, respectively, on cohort, father's nationality at birth, individual's department of birth, and survey fixed effects, as well as a dummy indicating father's occupational status. Results in these columns use a sample of women and report the interaction between a Muslim dummy and a dummy indicating that the respondent was surveyed for the first time in 1994 or later. Columns (3) shows the results of regressing the fraction of women aged between 15-18 in each household on cohort, father's nationality at birth, individual's department of birth, and survey fixed effects, as well as a dummy indicating father's occupational status. Results in this column report the interaction between a Muslim dummy and a dummy indicating that the household was surveyed for the first time in 1994 or later. Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level for columns (1) and (2). Robust standard errors are reported in parentheses for Column (3) . Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ . Source: INSEE, LFS 1990-1999.

Table B6: Effect of 1994 circular on educational outcomes using a triple difference in differences strategy

	High school graduation		Educ. attainment	
	(1)	(2)	(3)	(4)
Female $\times$ Muslim $\times$ $1\{\text{aged} \leq 14 \text{ at } t_0\}$	0.052** (0.021)		0.125* (0.071)	
Female $\times$ Muslim $\times$ dosage		0.059*** (0.021)		0.146** (0.070)
R2	0.098	0.098	0.132	0.132
N	195934	195934	177989	177989

*Notes:* This table refers to our working samples of French-born individuals who were born between 1971 and 1990. All columns show the results of regressing the outcome variable on cohort, father's nationality at birth, individual's department of birth, and survey fixed effects, as well as a dummy indicating father's occupational status. We also include as control dummies for female  $\times$  father's nationality at birth, female  $\times$  cohort, and cohort  $\times$  father's nationality at birth. Columns (1) and (2) refers to individuals aged 21 and above and uses as outcome a dummy variable indicating whether respondents graduated from high school. Columns (3) and (4) refers to individuals aged 24 and above and uses as outcome a variable indicating individual's final level of educational attainment measured in a 0 to 5 scale (from 0=no diploma to 5=college graduation).  $1\{\text{aged} \leq 14 \text{ at } t_0\}$  is a dummy indicating that the respondent was aged 14 years or below at  $t_0 = 1994$ . Dosage is a variable equal to 0, 0.25, 0.50, 0.75 or 1, depending on whether individuals were aged 15 years or above, 14 years, 13 years, 12 years or 11 years or below at  $t_0$ . Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level. Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ . Source: INSEE, LFS 2005-2019.

Table B7: Effect of 1994 circular on educational outcomes, using as control group non-Muslim low-SES individuals

	Women		Men	
	(1)	(2)	(3)	(4)
<i>Panel A: high school graduation</i>				
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	0.070*** (0.016)		0.020 (0.016)	
Muslim $\times$ dosage		0.078*** (0.017)		0.022 (0.016)
Dep. var. non-Muslim 1971-1979	0.560	0.560	0.457	0.457
Dep. var. Muslim 1971-1979	0.532	0.532	0.448	0.448
R2	0.024	0.024	0.018	0.018
N	52807	52807	50321	50321
<i>Panel B: educational attainment</i>				
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	0.153*** (0.051)		0.043 (0.053)	
Muslim $\times$ dosage		0.185*** (0.055)		0.065 (0.056)
Dep. var. non-Muslim 1971-1979	2.808	2.808	2.547	2.547
Dep. var. Muslim 1971-1979	2.632	2.632	2.332	2.332
R2	0.034	0.034	0.025	0.025
N	48284	48284	45811	45811

*Notes:* This table refers to our working samples of French-born individuals who were born between 1971 and 1990. The control group in this table is compressed by low-SES non-Muslim individuals. Low-SES is defined by those whose father worked in a manual or low-skilled non-manual occupation. All columns show the results of regressing the outcome variable on cohort, father's nationality at birth, individual's department of birth, and survey fixed effects. Panel A refers to individuals aged 21 or above and uses as outcome a dummy variable indicating whether respondents graduated from high school. Panel B refers to individuals aged 24 or above and uses as outcome variable individual's final level of educational attainment measured on a 0 to 5 scale (from 0=no diploma to 5=college graduation). Columns (1) and (2) use the subsample of women, while columns (3) and (4) use the subsample of men. Columns (1) and (3) include and report the interaction between a Muslim dummy and a dummy indicating that the respondent was aged 14 years or below at  $t_0 = 1994$ . Columns (2) and (4) include and report the interaction between a Muslim dummy and a dosage variable equal to 0, 0.25, 0.50, 0.75 or 1, depending on whether individuals were aged 15 years or above, 14 years, 13 years, 12 years or 11 years or below at  $t_0$ . Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level. Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ . Source: INSEE, LFS 2005-2019.

Table B8: Effect of 1994 circular on educational outcomes using a triple difference in differences strategy and low-SES non-Muslim individuals as control group

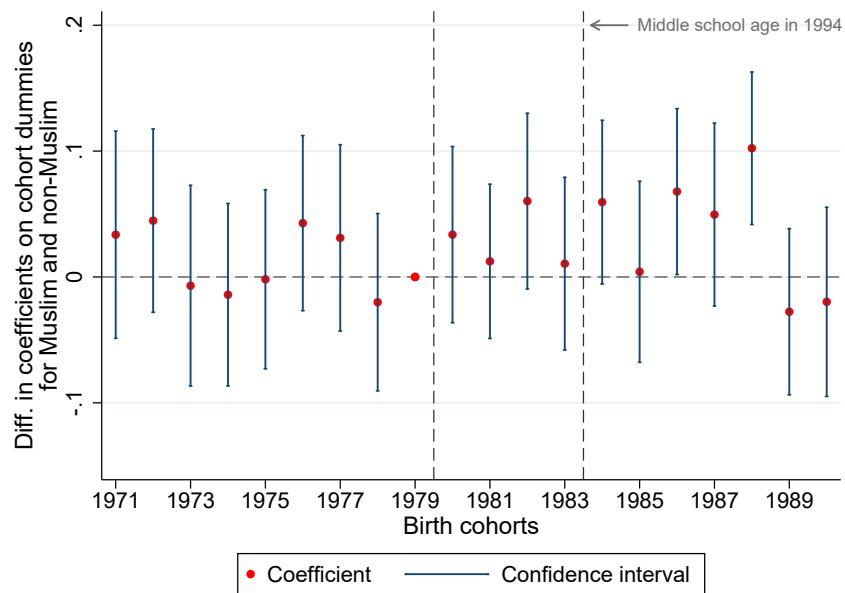
	High school graduation		Educ. attainment	
	(1)	(2)	(3)	(4)
Muslim $\times 1\{\text{aged} \leq 14 \text{ at } t_0\}$	0.053** (0.022)		0.119* (0.072)	
Muslim $\times$ dosage		0.059*** (0.023)		0.129* (0.072)
R2	0.030	0.030	0.039	0.039
N	103128	103128	94095	94095

*Notes:* This table refers to our working samples of French-born individuals who were born between 1971 and 1990. The control group in this tables is compressed by low-SES non-Muslim individuals. Low-SES is defined by those whose father worked in a manual or low-skilled non-manual occupation. All columns show the results of regressing the outcome variable on cohort, father's nationality at birth, individual's department of birth, and survey fixed effects. We also include as control dummies for female  $\times$  father's nationality at birth, female  $\times$  cohort, and cohort  $\times$  father's nationality at birth. Columns (1) and (2) refers to individuals aged 21 or above and uses as outcome a dummy variable indicating whether respondents graduated from high school. Columns (3) and (4) refers to individuals aged 24 or above and uses as outcome a variable indicating individual's final level of educational attainment measured on a 0 to 5 scale (from 0=no diploma to 5=college graduation).  $1\{\text{aged} \leq 14 \text{ at } t_0\}$  is a dummy indicating that the respondent was aged 14 years or below at  $t_0 = 1994$ . Dosage is a variable equal to 0, 0.25, 0.50, 0.75 or 1, depending on whether individuals were aged 15 years or above, 14 years, 13 years, 12 years or 11 years or below at  $t_0$ . Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level. Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ .

Source: INSEE, LFS 2005-2019.

## Appendix C Graphical analysis for cohorts of men reaching puberty at the time of the issue of the 1994 circular

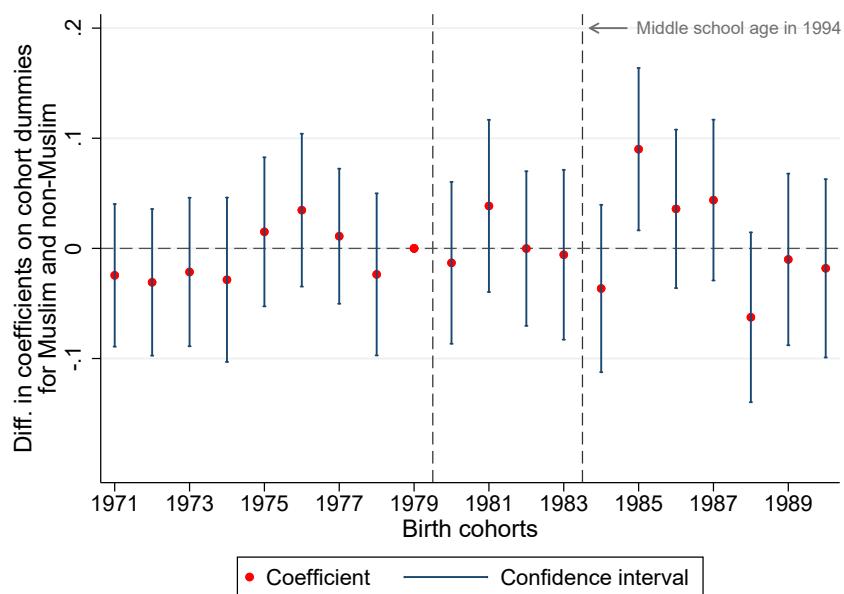
Figure C1: Estimated difference in high school graduation rates between men with Muslim and non-Muslim backgrounds reaching puberty around the time of issue of the 1994 circular



*Notes:* This figure shows the replication of Figure 1B for men in the Muslim and non-Muslim groups.

## Appendix D Graphical analysis comparing non-Muslim women and women whose father's nationality at birth was neither French nor from a Muslim country

Figure D1: Estimated difference in high school graduation rates between women with foreign non-Muslim and non-Muslim backgrounds reaching puberty around the time of the issue of the 1994 circular



*Notes:* This figure shows the replication of Figure 1B when comparing women with non-Muslim backgrounds and women whose father nationality at birth was neither French nor from a predominantly Muslim country.

Table D1: Effects of the 1994 circular on high school graduation, comparing non-Muslim women with French and non-French fathers

	(1)	(2)
Other foreign background $\times 1\{\text{aged} \leq 14 \text{ at } t_0\}$	0.017 (0.014)	
Other foreign background $\times$ dosage		0.018 (0.015)
Dep. var. non-Muslim 1971-79	0.663	0.663
Dep. var. Muslim 1971-79	0.611	0.611
R2	0.089	0.089
N	98900	98900

*Notes:* This table refers to a working samples of French-born individuals aged 21 or above who were born between 1971 and 1990, and compares women whose father's nationality at birth was French with those whose father's nationality at birth was neither French nor Muslim. All regressions show the results of regressing a high school graduation dummy on birth cohort, father's nationality at birth, individual's department of birth, and survey fixed effect, as well as a dummy indicating father's occupational status. Columns (1) includes and reports the interaction between the other foreign background dummy and a dummy indicating that the respondent was aged 14 years or below (at most middle school age) at  $t_0 = 1994$ . Columns (2) includes and reports the interaction between the other foreign background dummy and a dosage variable equal to 0, 0.25, 0.50, 0.75 or 1, depending on whether individuals were aged 15 years or above, 14 years, 13 years, 12 years or 11 years or below at  $t_0$ . Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level. Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ . Source: INSEE, LFS 2005-2019.

## Appendix E Analysis for cohorts of women and men reaching puberty at the time of the issue of the 2004 law

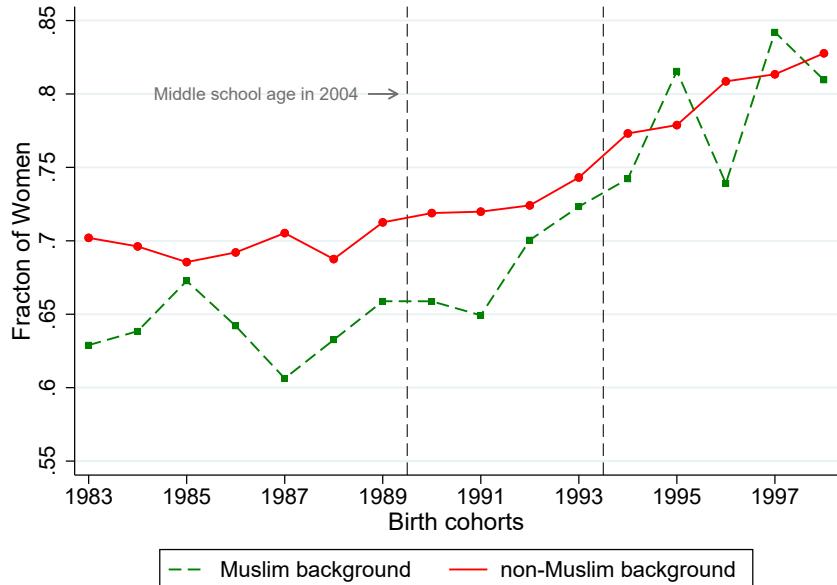
Table E1: Effect of 2004 law on educational outcomes

	Women		Men	
	(1)	(2)	(3)	(4)
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	0.023 (0.015)		-0.007 (0.020)	
Muslim $\times$ dosage		0.039** (0.019)		0.001 (0.028)
Dep. var. non-Muslim 1983-89	0.697	0.697	0.607	0.607
Dep. var. non-Muslim 1983-89	0.640	0.640	0.505	0.505
R2	0.086	0.086	0.098	0.098
N	45550	45550	45040	45040

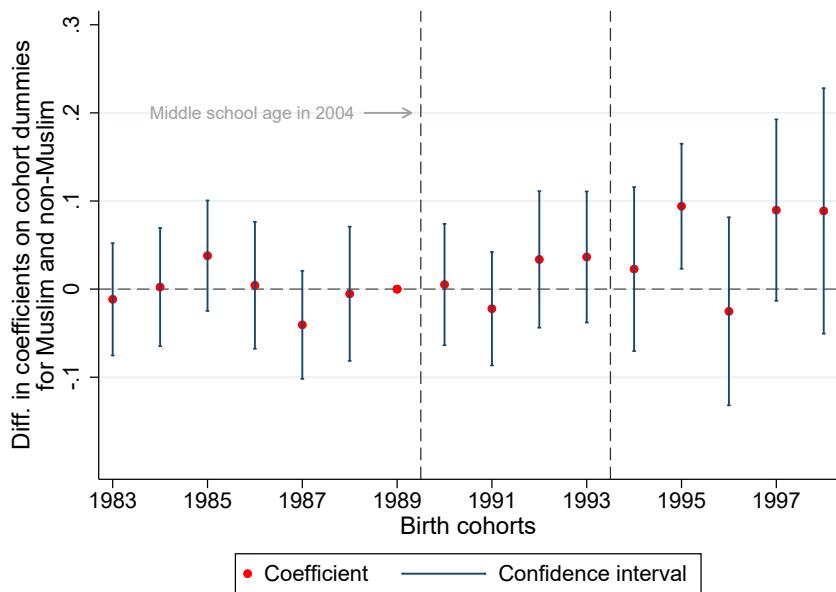
*Notes:* This table refers to a working samples of French-born individuals who were born between 1983 and 1998. Columns show the results of regressing whether respondents graduated from high school on cohort, father's nationality at birth, individual's department of birth, and survey fixed effects, as well as a dummy indicating father's occupational status. Columns (1) and (2) use the subsample of women, while columns (3) and (4) use the subsample of men. Columns (1) and (3) include and report the interaction between a Muslim dummy and a dummy indicating that the respondent was aged 14 years or below at  $t_0 = 2004$ . Columns (2) and (4) include and report the interaction between a Muslim dummy and a dosage variable equal to 0, 0.25, 0.50, 0.75 or 1, depending on whether individuals were aged 15 years or above, 14 years, 13 years, 12 years or 11 years or below at  $t_0$ . Standard errors, reported in parentheses, are clustered at the individual's department of birth  $\times$  father's nationality at birth level. Significance levels: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ .  
Source: INSEE, LFS 2005-2019.

Figure E1: High school graduation rates for women reaching puberty around the time of the issue of the 2004 law

(A) High school graduation rates of women with Muslim and non-Muslim backgrounds.

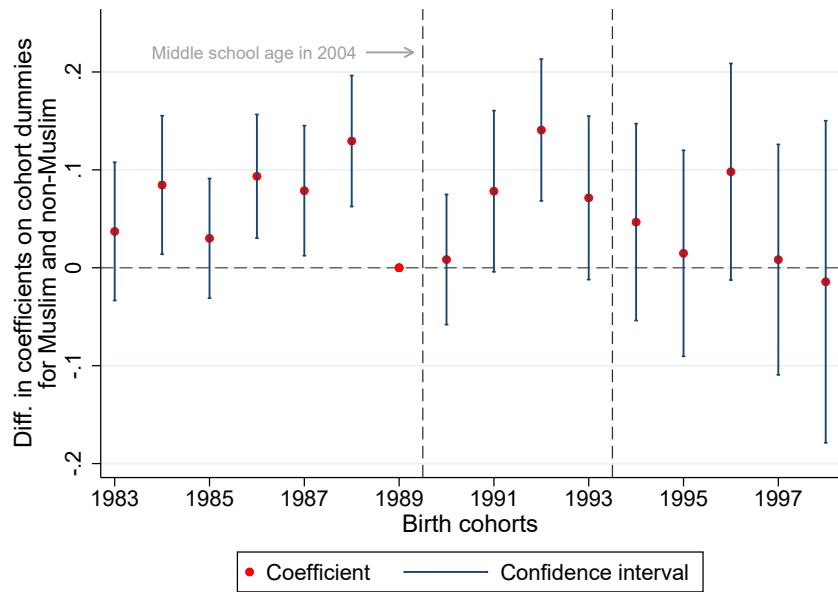


(B) Estimated differences between women with Muslim and non-Muslim backgrounds.



*Notes:* The top figure displays the fraction of French-born women, aged 21 or above, who graduated from high school, for cohorts born between 1983 and 1998. The solid (dashed) line refers to the Muslim (non-Muslim) group. The bottom figure displays the estimated difference in high school graduation probability between Muslim and non-Muslim groups obtained from regressing a high school graduation dummy on a full set of interactions between the Muslim dummy and cohort dummies and controlling for department of birth, survey date and father's nationality at birth fixed effects, as well as a dummy indicating father's occupational status. Cohorts within the vertical lines indicate the cohorts that reached puberty around the time of the 2004 law. Source: INSEE, LFS 2005-2019.

Figure E2: Estimated difference in high school graduation rates between men with Muslim and non-Muslim backgrounds reaching puberty around the time of the issue of the 2004 law



*Notes:* This figure shows the replication of Figure E1B for men in the Muslim and non-Muslim groups.

## Appendix F Robustness of the 2004 law evaluation to the use of alternative specifications

When we compare cohorts who spent their middle-school years and reached puberty before and after the 2004 law, we identify a positive effect on the educational attainment of Muslim group women, whereas no effect is found for men from the Muslim group (see Appendix E). This is in line with the idea that the law contributed to further improving the educational attainment of female students from the Muslim group, even though the impact is about half that of the 1994 circular. In this appendix, we explore the potential reasons for why this evaluation of the 2004 ban seems to produce a different result to those of Abdegadir and Fouka [2020] (hereafter, AF). In this, the authors compare women who reached age 19 before and after 2004 and argue that there is a significant decline in the educational attainment and labor market outcomes of women from the Muslim group who reached age 19 after 2004 (i.e. born from 1986 onwards). In addition to focusing primarily on cohorts that attended middle school and reached puberty before and after 2004 (rather than reaching age 19 before and after 2004), there are several other differences between our approach and that of AF. The most notable are the following:

- We use all of the LFSs conducted between 2005 and 2019, whereas AF use the LFSs conducted between 2005 and 2012. The working sample obtained with the 2005-2019 surveys is more than twice as large as that working sample obtained with the 2005-2012 surveys. We prefer to use the largest possible sample, as it likely provides more reliable estimates.<sup>1</sup>
- AF cluster standard errors at the father's country of birth level (7 clusters) whereas we cluster at the father's nationality  $\times$  department of birth level (about 350 clusters). We prefer not to cluster at the father's nationality (or country of birth) level, as 7 clusters is generally considered much too small a number to avoid downward bias in standard error estimates and excessive rejection of the no-effect null hypothesis [Cameron and Miller, 2015].
- In our preferred specification, we define the treatment not as a dummy variable but

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<sup>1</sup>Table F3, however, shows that the main results obtained with our specifications remained almost unchanged when using only the surveys conducted between 2005 and 2012, rather than all the surveys conducted between 2005 and 2019.

as a dosage variable proportional to the number of years that a cohort spent in middle school after the ban. In contrast, AF define the treatment as a dummy variable, indicating that respondents turned 19 after 2004 (i.e. were born from 1986 onwards). Students born in 1985 were 19 years old in 2004 and are implicitly assumed to have already left school by that time. However, according to the LFS, for cohorts born in the 1980s, more than 50% of Muslim group women were still in secondary education at age 19, both because of grade repetitions and because the normal age for obtaining a *baccalauréat professionnel* was actually 19 for these cohorts. Thus, even if one follows the AF model, it seems more appropriate to use the 1985 cohort as the first treated one (rather than the 1986 cohort).

In the remainder of this appendix, we explore whether AF's main results are robust to: (a) using the larger sample (with the full set of 2005-2019 surveys); (b) using robust standard errors rather than standard errors clustered at the father's country of birth level; and, (c) using the 1985 as the first treated cohort rather than the 1986 cohort.

### *Effects on educational attainment*

To start, Table F1 below reports the results of replicating the main results of AF's Table 1 using different specifications. Panel A replicates AF's Table 1 results, using their specification. We obtain exactly the same results, i.e. a significant negative impact on the educational attainment of Muslim group women born from 1986 onwards. Panel B replicates the same regression analysis as Panel A, except that we no longer cluster standard errors (and, instead, used robust standard errors). As expected, standard errors become about twice as large, but estimated effects remain significant at the 5% level. Panel C replicates the same analysis as panel A except that we use the 2005-2019 LFS sample (rather than 2005-12). This panel shows that results are not robust to this specification. Estimated effects become two to three times smaller than with the 2005-2012 sample. For two of the five models, estimated effects are not statistically significant at standard levels. Panel D replicates the same analysis as panel C, except that we use robust standard errors. Only one of the estimated effects remains significant at standard levels. Finally, panel E replicates the same regression analysis as panel A, except that we use robust standard errors and consider the 1985 cohort as the first treated cohort (rather than the last non-treated one, consistent with French institutions). Again, estimated effects become negligible and statistically non-significant. In

fact, when we consider 1985 as the first treated cohort, we check that the effects all become non-significant even when we cluster the standard errors at the father's place of birth level. None of the results in Table 1 in AF are robust to using a slightly different cut-off.<sup>2</sup>

Generally speaking, the fact that estimated effects tend to vanish when we use the 2005-2019 sample (or when we use a different cut-off cohort) is suggestive that the effects found with the smaller 2005-2012 sample simply reflect sampling variability.<sup>3</sup>

### *Effects on labor market and marriage market outcomes*

To move one step further, Table F2 below reports the results of replicating the main results of AF's Table 2, namely the impact of their treatment variable (being born after 1985) on the probability of being inactive in the labor market (column 1), being employed (column 2), living with parents (column 3), having children (column 4), and being married (column 5). Panel A replicates AF's result in their Table 2 using their specifications and their 2005-2012 sample. Once again, we obtain exactly the same results as AF. Panel B replicates the same analysis as panel A, except that we use robust standard errors. Four estimated effects out of five become non-significant at standard level and one estimated effect becomes marginally significant. Most results in AF's Table 2 are thus not robust to adjusting standard errors. Panel C replicates the same analysis in panel A, except that we use the full 2005-2019 LFS sample. All estimated effects becomes negligible, and only one out of five is marginally significant. Unsurprisingly, all effects are non-significant when we use both the larger sample and robust standard errors (panel D). Overall, the results in Table 2 are not robust to either the use of a larger sample or the use of robust standard errors. Finally, panel E replicates the same analysis as panel A, except that we use 1985 as the first treated cohort (rather than 1986) and robust standard errors. Again, all estimated effects become negligible and statistically non-significant.

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<sup>2</sup>We checked that the same result is obtained when using the 1983 (or even 1986) cohort as the last untreated cohort, rather than 1985. We again reach the same result when we drop cohorts 1985 and 1986 (the two with the least clear treatment status) from the working sample. This also suggests that there is no change in levels between pre- and post-treatment cohorts.

<sup>3</sup>It should be noted that the effects estimated with the 2005-2012 surveys are not significantly different from those estimated with the 2005-2019 surveys, even though the former appear statistically significant and the latter not. It should also be emphasized that when we replicate the analysis in Table F1 on the sample of men, we find the same results as for women, i.e. no significant effect when using the 2005-2019 sample and/or when using robust standard errors.

## *Conclusion*

To conclude, it seems that the most robust diagnosis is that there is no real decline in the educational attainment of Muslim group women for the cohorts born just before 1986 and from 1986 onwards, nor is there any longer-term impact on their trajectory. In a way, this is not surprising: if we compare the first cohort considered untreated (i.e. 1985) with the first cohort considered treated, they both spent most of their schooling in contexts where wearing the veil was prohibited by the school rules (due to the circular). Even if we assume that the 2004 law has led to an increase in the rigor of the application of the ban, these two cohorts were not impacted until the very end of their high school years. Moreover, the empirical strategy assessing this late potential increase in rigor should take into consideration that people born in 1985 were 19 years old, and more than 50% of Muslim group women were still in secondary school in 2004.

Table F1: Replication of Abdelgadir and Fouka [2020] results on secondary education (Table 1)

	(1)	(2)	(3)	(4)	(5)
<i>Panel A: AF replication</i>					
Muslim × Born after 1985	-0.0295*** (0.00776)	-0.0291*** (0.00771)	-0.0386*** (0.00343)	-0.0712*** (0.00805)	
Muslim father × Born after 1985					-0.0233*** (0.00298)
Muslim father & mother × Born after 1985					-0.0488*** (0.00776)
Observations	45265	45265	45265	45265	45265
<i>Panel B: AF replication, using robust SE</i>					
Muslim × Born after 1985	-0.0295** (0.0132)	-0.0291** (0.0132)	-0.0386** (0.0182)	-0.0712*** (0.0254)	
Muslim father × Born after 1985					-0.0233 (0.0230)
Muslim father & mother × Born after 1985					-0.0488** (0.0212)
Observations	45265	45265	45265	45265	45265
<i>Panel C: AF replication, using LFSs 2005-19 and clustering SE at father's birthplace level</i>					
Muslim × Born after 1985	-0.0167** (0.00550)	-0.0128* (0.00530)	-0.00315 (0.00196)	-0.0144** (0.00430)	
Muslim father × Born after 1985					0.00508 (0.00386)
Muslim father & mother × Born after 1985					0.00622 (0.00507)
Observations	110503	110503	110503	110503	90730
<i>Panel D: AF replication, using robust SE and LFSs 2005-19</i>					
Muslim × Born after 1985	-0.0167** (0.00808)	-0.0128 (0.00810)	-0.00315 (0.00952)	-0.0144 (0.0150)	
Muslim father × Born after 1985					0.00508 (0.0147)
Muslim father & mother × Born after 1985					0.00622 (0.0133)
Observations	110503	110503	110503	110503	90730
<i>Panel E: AF replication, using robust SE, LFSs 2005-12 and 1985 as the first treated cohort</i>					
Muslim × Born after 1984	-0.00888 (0.0129)	-0.00902 (0.0129)	0.00176 (0.0178)	0.00663 (0.0241)	
Muslim father × Born after 1984					0.0108 (0.0227)
Muslim father & mother × Born after 1984					-0.00244 (0.0207)
Observations	45265	45265	45265	45265	45265
Birth year FE	YES	YES	YES	YES	YES
Father's birthplace FE	YES	YES	YES	YES	YES
Survey year FE	NO	YES	YES	YES	YES
Age × Father	NO	NO	YES	YES	YES
Muslim-specific linear trend	NO	NO	NO	YES	NO

*Notes:* This table reports the results of replicating Table 1 in Abdelgadir and Fouka [2020] (AF). Panel A replicates results in AF. Panel B replicates AF's results, using robust standard errors. Panel C replicates AF's results, using LFSs 2005-19 and clustering standard errors at the father's birthplace level (as in AF). Panel D replicates AF's results, using robust standard errors and LFSs 2005-19. Panel E replicates AF's results, using robust standard errors, using LFSs 2005-12, and considering 1985 as the first treated cohort. Significance levels: \*\*\* < 0.01, \*\* < 0.05, \* < 0.1. Source: INSEE, LFS 2005-19.

Table F2: Replication of Abdelgadir and Fouka [2020] results on long term outcomes (Table 2)

	Inactive (1)	Employed (2)	Lives with parents (3)	Has children (4)	Married (5)
<i>Panel A: AF replication</i>					
Muslim × Born after 1985	0.0288** (0.00875)	-0.0370*** (0.00461)	0.0242** (0.00655)	0.0398*** (0.00993)	-0.00912** (0.00285)
Observations	45289	45289	45289	9836	45286
<i>Panel B: AF replication, using robust SE</i>					
Muslim × Born after 1985	0.0288 (0.0218)	-0.0370* (0.0216)	0.0242 (0.0217)	0.0398 (0.0272)	-0.00912 (0.0157)
Observations	45289	45289	45289	9836	45286
<i>Panel C: AF replication, using LFSs 2005-19 and clustering SE at father's birthplace level</i>					
Muslim × Born after 1985	0.0154* (0.00704)	-0.00731 (0.00885)	-0.0109*** (0.000739)	0.00799 (0.00878)	0.00858* (0.00353)
Observations	100653	100653	100713	65263	100710
<i>Panel D: AF replication, using robust SE and LFSs 2005-19</i>					
Muslim × Born after 1985	0.0154 (0.0129)	-0.00731 (0.0135)	-0.0109 (0.0121)	0.00799 (0.0136)	0.00858 (0.0112)
Observations	100653	100653	100713	65263	100710
<i>Panel E: AF replication, using robust SE, LFSs 2005-12 and 1985 as the first treated cohort</i>					
Muslim × Born after 1984	0.0167 (0.0216)	-0.0114 (0.0226)	0.0235 (0.0219)	0.0252 (0.0185)	-0.00225 (0.0182)
Observations	45289	45289	45289	9836	45286

*Notes:* This table reports the results of replicating Table 2 in Abdelgadir and Fouka [2020] (AF). Panel A replicates results in AF. Panel B replicates AF's results, using robust standard errors. Panel C replicates AF's results, using LFSs 2005-19 and clustering standard errors at the father's birthplace level (as in AF). Panel D replicates AF's results, using robust standard errors and LFSs 2005-19. Panel E replicates AF's results, using robust standard errors, using LFSs 2005-12, and considering 1985 as the first treated cohort. Significance levels: \*\*\* < 0.01, \*\* < 0.05, \* < 0.1. Source: INSEE, LFS 2005-19.

Table F3: Table 1 replication using LFS 2005-2012

	(1)	(2)	(3)	(4)
<i>Panel A: high school graduation</i>				
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	0.085*** (0.019)		0.025 (0.019)	
Muslim $\times$ dosage		0.091*** (0.019)		0.026 (0.021)
Dep. var. non-Muslim 1971-79	0.659	0.659	0.569	0.569
Dep. var. Muslim 1971-79	0.505	0.505	0.426	0.426
R2	0.092	0.092	0.097	0.097
N	49961	49961	48222	48222
<i>Panel B: educational attainment</i>				
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	0.292*** (0.068)		0.061 (0.075)	
Muslim $\times$ dosage		0.322*** (0.076)		0.089 (0.087)
Dep. var. non-Muslim 1971-79	3.15	3.15	2.895	2.895
Dep. var. Muslim 1971-79	2.469	2.469	2.206	2.206
R2	0.129	0.129	0.120	0.120
N	41316	41316	39622	39622

*Notes:* This table replicates Table 1 using LFSs 2005-2012.

## Appendix G Replication of main results using the *Échantillon démographique permanent*

Table G1: High school graduation probability, by gender and birth cohort using the *Échantillon démographique permanent*

	Cohorts 1971-1974 (1)	Cohorts 1987-1990 (2)
<i>Panel A: women</i>		
Muslim (a)	0.559 (0.028)	0.723 (0.020)
Non-Muslim (b)	0.656 (0.004)	0.711 (0.005)
(a)-(b)	-0.096 (0.028)	0.016 (0.020)
$[(a) - (b)]_t - [(a) - (b)]_{t-1}$	0.113	
P-value	0.001	
<i>Panel B: men</i>		
Muslim (a)	0.495 (0.035)	0.518 (0.021)
Non-Muslim (b)	0.556 (0.004)	0.605 (0.005)
(a)-(b)	-0.061 (0.035)	-0.087 (0.021)
$[(a) - (b)]_t - [(a) - (b)]_{t-1}$	-0.027	
P-value	0.514	

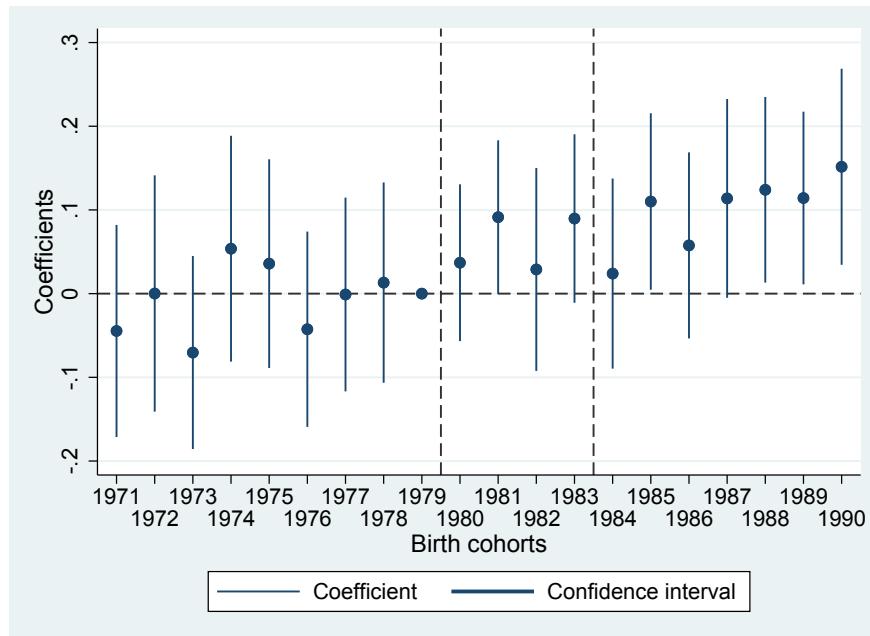
*Notes:* This table shows the replication of Table B3 using the *Échantillon démographique permanent*.

Table G2: Effect of 1994 circular on educational outcomes using the *Échantillon démographique permanent*

	Men		Women	
	(1)	(2)	(3)	(4)
<i>Panel A: high school graduation</i>				
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	0.017 (0.021)		0.086*** (0.020)	
Muslim $\times$ dosage		0.029 (0.020)		0.093*** (0.021)
N	59,597	59,597	59,027	59,027
R2	0.075	0.075	0.064	0.064
<i>Panel B: educational attainment</i>				
Muslim $\times$ 1{aged $\leq$ 14 at $t_0$ }	-0.001 (0.076)		0.238*** (0.065)	
Muslim $\times$ dosage		0.017 (0.070)		0.246*** (0.077)
N	47,397	47,397	47,993	47,993
R2	0.099	0.099	0.099	0.099

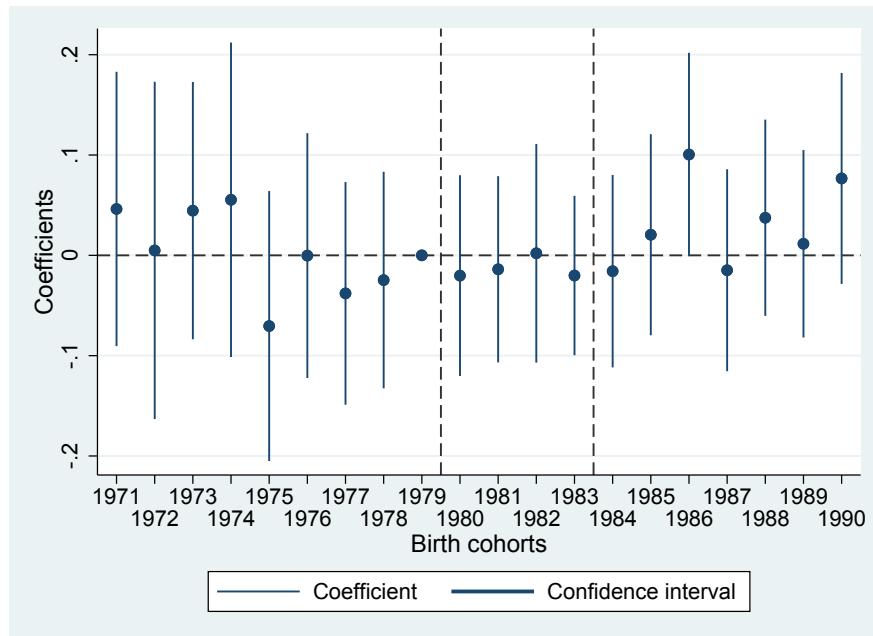
*Notes:* This table shows the replication of Table 1 using the *Échantillon démographique permanent*.

Figure G1: Estimated difference in high school graduation rates between women with Muslim and non-Muslim backgrounds reaching puberty around the time of the issue of the 1994 circular, using the *Échantillon démographique permanent*



Notes: This figure shows the replication of Figure 1B for women in the Muslim and non-Muslim groups using the *Échantillon démographique permanent*.

Figure G2: Estimated difference in high school graduation rates between men with Muslim and non-Muslim backgrounds reaching puberty around the time of the time of the issue of the 1994 circular, using the *Échantillon démographique permanent*



Notes: This figure shows the replication of Figure C1 for men in the Muslim and non-Muslim groups using the *Échantillon démographique permanent*.