Online Appendix

Women's Autonomy and Abortion Decision-Making

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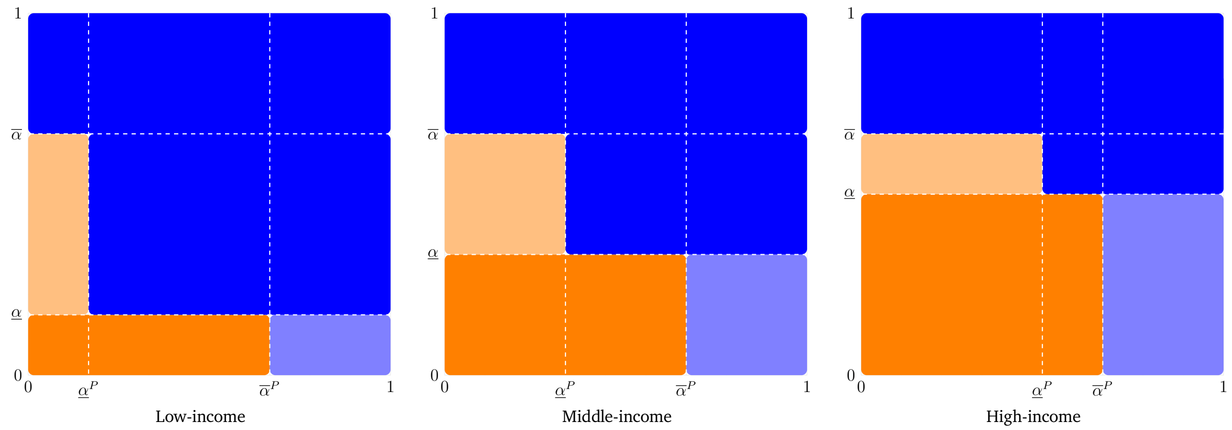
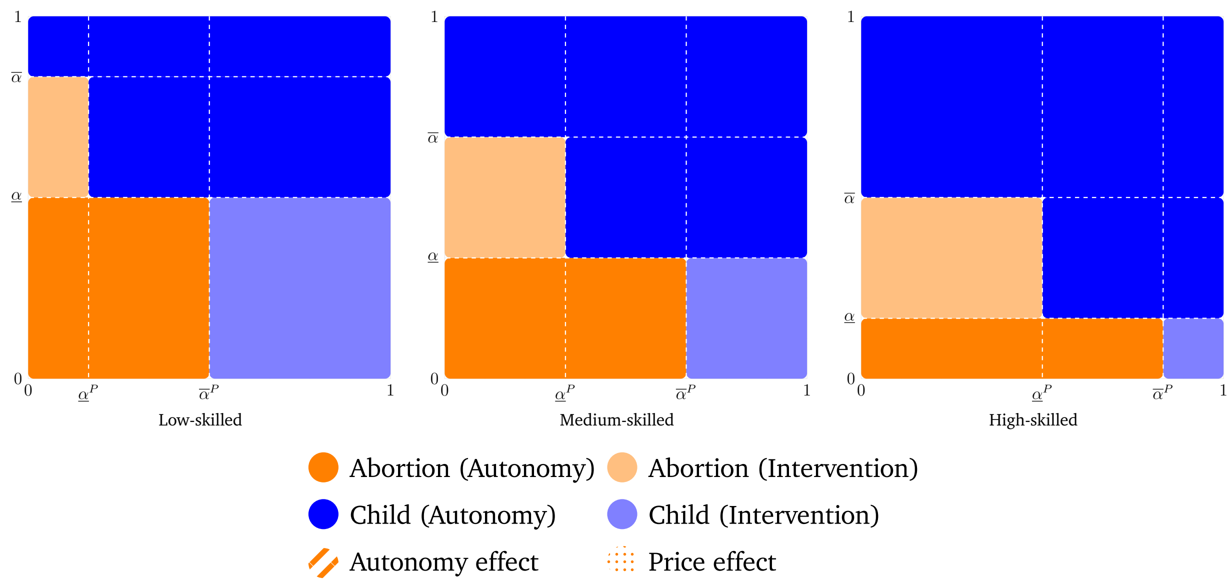
A Additional Figures and Tables

Figure A.1: Comparative Statics

(a) Equilibria Shift by SES

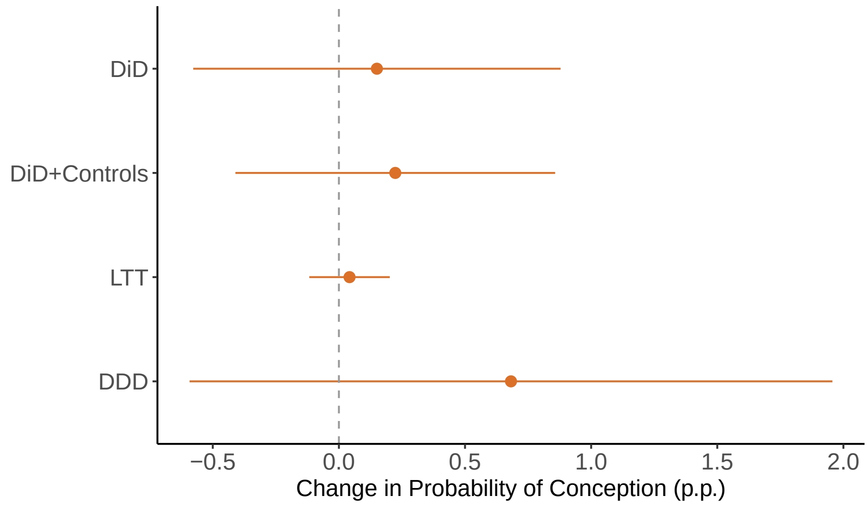


(b) Equilibria Shift by Skill



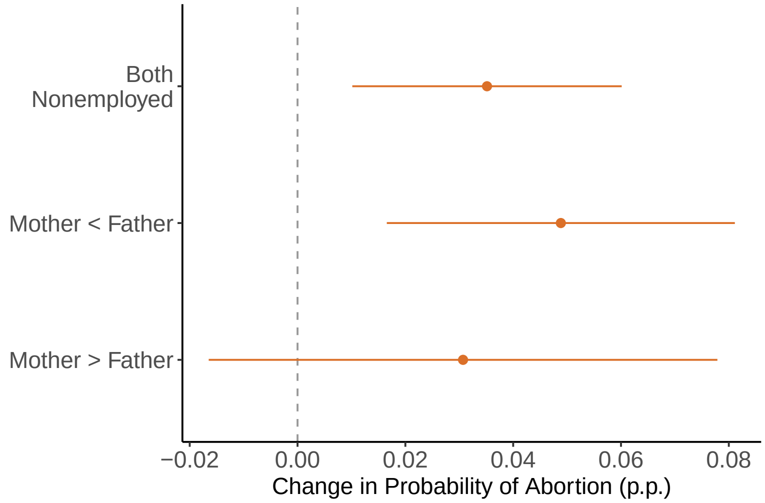
Notes: This figure illustrates the comparative statics of the four potential equilibria described in Figure 2, by different levels of skills and SES. The equilibria are based on the relationship between the daughter's utility costs on the support $\alpha_i \in [\underline{\alpha}, \overline{\alpha}]$, and parents' abortion utility cost on the support $\alpha_i^P \in \left[\underline{\alpha}^P, \overline{\alpha}^P\right]$. $\underline{\alpha}, \overline{\alpha}, \underline{\alpha}^P, \overline{\alpha}^P$ dictate the thresholds of the abortion utility cost that switches the daughters' and parents' decision of involvement, support, and abortion. For example, daughters with $\alpha_i < \underline{\alpha}$ would generally prefer an abortion unless their parents persuade them otherwise, whereas daughters with $\underline{\alpha} \leqslant \alpha_i < \overline{\alpha}$ would prefer to have the child if not convinced by their parents otherwise. Finally, daughters with $\alpha_i \geqslant \overline{\alpha}$ would never carry out an abortion.

Figure A.2: Change in Conceptions



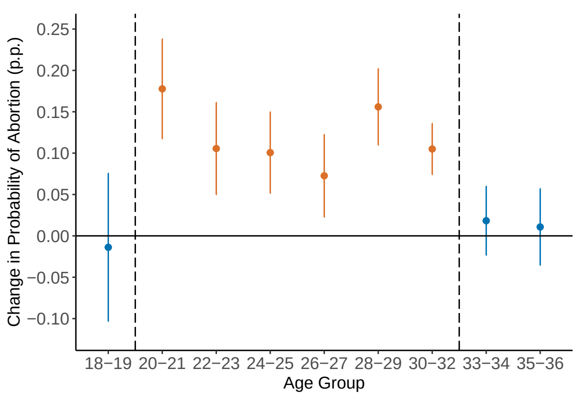
Notes: This figure presents the difference-in-difference results for the effect of the 2014 policy on conceptions probabilities from the population of 18-21 years old unmarried women. Each row presents the results from a different specification, where the dot represents the treatment effect and the lines mark the 95% confidence interval around the point estimate. DiD represents our baseline specification following Equation 1 – where we compare outcomes before and after the policy change for women who were affected (20-21) and unaffected (18-19) by the expansion of the subsidy. $DiD + Controls$ includes a set of pre-pregnancy non-parametric controls (ethnicity, education, yearly earnings, months worked). LTT controls for differential time pre-trend as described in Appendix F. DDD corresponds to a specification using the married population as a third difference. The dashed vertical line is at 0, indicating an insignificant result (at the 5% level). The sample includes all unmarried women in the country aged 18-21 from 2009-2016. The estimates are percentage point changes that can be interpreted as the relative change per 100 women.

Figure A.3: Policy Effect by Ratio of Mother's to Father's Income

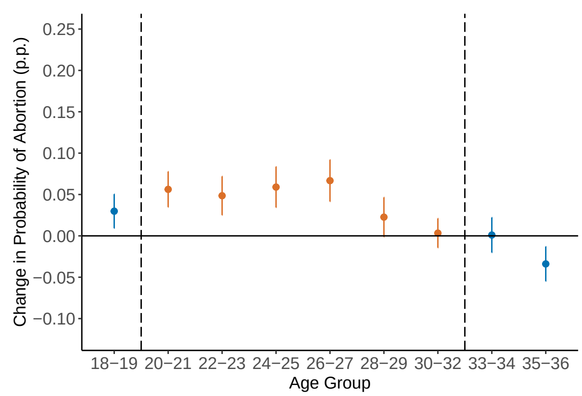


Notes: The figure presents the heterogeneous difference-in-differences results, where we split the sample by SES groups with respect to parental income. The top result includes women whose both parents are unemployed. The middle result includes women whose mothers earn less than their fathers. The bottom result includes women whose mothers earn more than their fathers. In each row, the dot represents the percentage change in the treatment effect ($\delta \cdot Post_t \times T_i$), and lines mark the 95% confidence interval around the point estimate. The dashed vertical line is at 0, indicating an insignificant result. The sample includes all unmarried women in the country aged 18-21 from 2009-2016 who conceived. Treated women are those aged 20-21.

Figure A.4: Difference Between Pre and Post Policy Abortion by Age and Sub-Group



(a) Conservative and Low SES



(b) Secular or High SES

Notes: This figure presents the results of a before-and-after exercise in which we restrict the data to two years before and after the 2014 policy change (2012-2015) and estimate the post-policy difference in the abortion separately for each age (18-36). The left panel represents the results for women from low-SES and religious-Jewish or Israeli-Arab families. The right panel presents the results for women from either secular or high-SES families. The point estimates can be interpreted as the percentage point difference in the probability of abortion for each age group following the introduction of the 2014 policy. The lines are 95% confidence intervals and the horizontal line marks 0. The ages that were eligible for the 2014 subsidy expansion are indicated in orange (treated), while those ineligible are presented in blue. The dashed vertical lines mark the two age cutoffs for the subsidy change eligibility: 19-years-old and 33-years-old.

Table A.1: Sample Construction

Panel A: Primary Analytic Dataset (Conception Panel)

	Observations	Women
Pregnancy Panel	4,273,610	1,636,580
Conceptions b/w 2009-2016	1,380,674	807,985
Unmarried women	170,605	125,253
Unmarried 18-21 year olds	24,564	20,621

Panel B: Labor Market Dataset

	Observations	Women
Income Panel	48,591,970	1,636,580
Conceptions b/w 2009-2016	30,935,956	807,985
Unmarried women	2,570,035	125,253
Unmarried 18-21 year olds	402,607	20,621

Notes: This table shows our sample construction in terms of both total observations (pregnancies) and total women, described in Section 4.1. Panel A reports these sample sizes for the primary analytic sample – the conception panel, where each row adds data restrictions. Panel B reports these sample statistics for the labor market panel. In both cases, we began with the initial sample of all pregnancies, which we trimmed to conceptions that occurred between January 2009 and March 2016 to women aged 16-40. Then we further restrict our sample to the population of unmarried 18-21 year-olds.

Table A.2: Heterogeneous Effect of Removing Abortion Cost on Abortion Utilization by Education and Religiosity

	Education Level		Ethnicity		
	Less than HS	HS + Vocational	Secular Jew	Religious Jew	Arab
Treatment Effect	0.024	0.034	0.016	0.053	0.059
	(0.019)	(0.015)	(0.018)	(0.019)	(0.054)
Differential Effect		0.01		0.037	0.044
		(0.005)		(0.013)	(0.051)
Mean	0.682	0.806	0.846	0.566	0.293

Notes: This table presents the heterogeneous abortion ratios and effect of the abortion funding policy on abortion while splitting the population across two dimensions: education level (Columns (1)-(2)) and religiosity/ethnicity (Columns (3)-(5)). Our baseline specification follows Equation 1 as described in Section 4.2 – where we compare outcomes before and after the policy change for women who were affected (20-21) and unaffected (18-19) by the expansion of the subsidy, including a set of pre-pregnancy non-parametric controls (ethnicity, religiosity level, education, family's yearly earnings). The first row ("Treatment Effect") reports the treatment effect from a separate regression by each sub-population. The second row ("Differential Effect") reports the results from a pulled regression, where a group indicator is interacted with all other terms in the regression. For example, the differential effect in column (2) is the estimated coefficient treatment effect from the interaction of having high-school or vocational training at the timing of conception (compared to the baseline category – no high school diploma). Standard errors clustered by age at conception in parentheses.

Table A.3: 2014 Policy Effect in Log-Levels and Log Rates

	Log-Levels			Log Rates		
	Pregnancies	Abortions	Births	Pregnancies	Abortions	Births
Treatment Effect	0.02	0.09	-0.11	-0.02	0.04	-0.16
	(0.06)	(0.05)	(0.1)	(0.11)	(0.01)	(0.02)
N	336	336	336	28	28	28

Notes: This table presents difference-in-differences results for the effect of the 2014 policy on pregnancies, abortions, and births in log-levels and log-rates. To estimate specifications in log-levels, we first collapse the micro-data by year-month-age to get aggregate numbers, then take the natural log. For the log rate specifications, we divide the aggregate levels by the total population of women in that age-year-month group and take the natural log of the rate. The sample includes all unmarried women in the country aged 18-21 between 2009-2016. Treated women are those aged 20-21. Standard errors in parentheses.

B Proofs

B.1 Solution and equilibria

In this Section we explain the solution of the autonomy model described in Section 2. Since we solve the model by backward induction we begin with the daughter's abortion decision under both the case with and without parental involvement; followed by analyzing the daughter's decision to involve her parents. We end this Section by describing the implied four equilibria of the model.

B.1.1 Daughter's Abortion Decision

Daughters opt for having an abortion whenever they expect a higher increase in their wealth compared to the abortion disutility α_i

Lemma 1. *A woman chooses to carry out an abortion as long as:*

$$\alpha_i \leqslant u\left(\left(1-k^*\right)\overline{h}\omega\left(\theta_i\right)-\pi\left(1-s^*\right)\right).$$

Proof. – Women choose the alternative that minimizes the negative impact becoming pregnant when young adults. In addition, either because she involves her parents and observes the final offers on child-rearing help and financial aid $(k^*, s^*) = (k^1, s^1)$, or because she can anticipate her parents when she does not involve them in the decision $(k^*, s^*) = \left(k^0\left(\overline{h}, \theta_i\right), s^0\left(\pi, \zeta_i\right)\right)$ she chooses to have an abortion whenever

$$\pi\left(1-s^*\right)+u^{-1}\left(\alpha_i\right) \leqslant \left(1-k^*\right)\overline{h}\omega\left(\theta_i\right)$$

which leads to the aforementioned expression by isolating α_i from it. □

No Ex-ante Parental Involvement ($I = 0$): If the daughter decides not to involve her parents early in her decision, they will offer her an efficient level of support. Specifically, when a daughter decides to carry out the abortion, her parents offer a level of financial aid s^0, which we define as efficient, in the sense that the marginal increase in their daughter's wealth outweighs the monetary cost of the help.

Proposition B.1. *When a daughter decides to carry out the abortion, her parents offer an efficient level of financial aid s^0.*

Proof. – Let us consider the cost minimization program of parents when their daughter chooses to carry out the abortion:

$$\min_{s} \ \mathcal{C}_1^P(s;\Omega_0,\alpha_i,\Omega_i^P) \equiv \pi(1-s) + u^{-1}(\alpha_i) + \mathcal{C}^P\left(s;\alpha_i^P,\zeta_i\right).$$

The first-order condition of the program determines that parents would increase the level of financial aid s^0 as long as the marginal increase in their daughter's wealth outweighs the monetary cost of the help:

$$s^0 = \mathcal{C}_s^{P-1}(\pi;\zeta_i).$$

□

Furthermore, since $\mathcal{C}^P\left(s;\alpha_i^P,\zeta_i\right)$ is a strictly decreasing function with respect to ζ_i, we get that higher-incomes families will cover a larger fraction of the monetary cost of the abortion.

On the other hand, when a daughter decides to have the child, her parents offer a level of child-rearing help k^0, which we define as efficient, in the sense that the marginal increase in their daughter's wealth outweighs the monetary cost of the help.

Proposition B.2. *When a daughter decides to have the child, her parents offer an efficient level of child-rearing help k^0.*

Proof. – Let us consider the utility maximization program of parents when their daughter chooses not to have the abortion:

$$\min_{k} \ \mathcal{C}_0^P(k;\overline{h},\theta_i) \equiv (1-k)\,\overline{h}\omega(\theta_i) + \mathcal{C}^P(k).$$

The first-order condition of the program determines that parents would increase the level of child-rearing help k^0 as long as the marginal increase in their daughter's wealth outweighs the monetary cost of the help:

$$k^0 = \mathcal{C}_k^{P-1}\left(\overline{h}\omega(\theta_i)\right).$$

□

Moreover, from the first-order condition we observe that parents have incentives to provide more child-rearing help to daughters the higher is her skill-level θ_i.

With Parental Involvement ($I = 1$): When a daughter involves her parents in the decision and carrying out the abortion is sufficiently costly for parents, they have incentives to offer a higher level of child-rearing help ($k^1 \geqslant k^0$) and a lower financial aid ($s^1 \leqslant s^0$), to compensate the utility cost of their daughter carrying out the abortion α_i^P.

Proposition B.3. *When a daughter involves her parents in the decision and carrying out the abortion is sufficiently costly for parents, $\alpha_i^P \geqslant M$, parents have incentives to offer $k^1 \geqslant k^0$ and $s^1 \leqslant s^0$.*

Proof. – Let us consider the case where a daughter would prefer to have an abortion if they had not involved their parents in the decision. By Lemma 1,

$$\pi\left(1-s^{0}\right)+u^{-1}\left(\alpha_{i}\right)\leqslant\left(1-k^{0}\right)\overline{h}\omega\left(\theta_{i}\right).$$

Given that α_i^P shifts the financial aid cost function $\mathcal{C}^P\left(s;\alpha_i^P,\zeta_i\right)$ upwards, notice that for fixed $\left(\Omega_0,\Omega_i,\Omega_i^P\right)$, $\exists\, M:\forall\alpha_i^P\geqslant M$, so that

$$\pi\left(1-s^{0}\right)+u^{-1}\left(\alpha_{i}\right)+\mathcal{C}^{P}\left(s^{0};\alpha_{i}^{P},\zeta_{i}\right)\geqslant\left(1-k^{0}\right)\overline{h}\omega\left(\theta_{i}\right)+\mathcal{C}^{P}\left(k^{0}\right)$$

Then, parents would have incentives to offer $(k^1,s^1)\neq(k^0,s^0)$ to influence their daughter's decision towards having the child instead. In particular, there are two different scenarios to consider. First, whenever:

$$\pi\left(1-s^{0}\right)+u^{-1}\left(\alpha_{i}\right)\leqslant\left(1-k^{0}\right)\overline{h}\omega\left(\theta_{i}\right)\leqslant\pi+u^{-1}\left(\alpha_{i}\right),$$

parents offer $k^1=k^0$, since this is the level of child-rearing help k that minimizes $\mathcal{C}_0^P(k;\overline{h},\theta_i)$, and

$$s^{1}\leqslant\frac{\pi+u^{-1}\left(\alpha_{i}\right)-\left(1-k^{0}\right)\overline{h}\omega\left(\theta_{i}\right)}{\pi}<s^{0}$$

with the intention to increase the monetary cost of the abortion.

Second, whenever:

$$\pi+u^{-1}\left(\alpha_{i}\right)\leqslant\left(1-k^{0}\right)\overline{h}\omega\left(\theta_{i}\right),$$

parents offer $s^0=0$ and

$$k^{1}=\frac{\overline{h}\omega\left(\theta_{i}\right)-\pi-u^{-1}\left(\alpha_{i}\right)}{\overline{h}\omega\left(\theta_{i}\right)}>k^{0}$$

as long as:

$$\pi\left(1-s^{0}\right)+u^{-1}\left(\alpha_{i}\right)+\mathcal{C}^{P}\left(s^{0};\alpha_{i}^{P},\zeta_{i}\right)\geqslant\left(1-k^{1}\right)\overline{h}\omega\left(\theta_{i}\right)+\mathcal{C}^{P}\left(k^{1}\right).$$

This implies that parents would overextend on the child-rearing help and further decrease the loss in earnings associated with the less time available after giving birth, as long as the extra help is more than compensated by the utility cost of carrying out the abortion α_i^P. □

Similarly, when a daughter involves her parents in the decision and carrying out the abortion has a sufficiently low utility cost for them, they have incentives to offer lower child-rearing help ($k^1\leqslant k^0$) and overextend on the financial aid of the abortion $s^1\geqslant s^0$.

Proposition B.4. *When a daughter involves her parents in the decision and carrying out the* *abortion is sufficiently cheap for parents, $\alpha_i^P \leqslant M$, parents have incentives to offer $k^1 \leqslant k^0$ and $s^1 \geqslant s^0$.*

Proof. – Let us consider the case where a daughter would prefer to have the child if they had not involved their parents in the decision. By Lemma 1 we get:

$$\pi\left(1-s^0\right)+u^{-1}\left(\alpha_i\right) \geqslant\left(1-k^0\right) \bar{h} \omega\left(\theta_i\right).$$

Given that α_i^P shifts the financial aid cost function $\mathcal{C}^P\left(s ; \alpha_i^P, \zeta_i\right)$ upwards, notice that for fixed $\left(\Omega_0, \Omega_i, \Omega_i^P\right)$, $\exists\, M: \forall \alpha_i^P \leqslant M$, such that

$$\pi\left(1-s^0\right)+u^{-1}\left(\alpha_i\right)+\mathcal{C}^P\left(s^0 ; \alpha_i^P, \zeta_i\right) \leqslant\left(1-k^0\right) \bar{h} \omega\left(\theta_i\right)+\mathcal{C}^P\left(k^0\right).$$

Therefore, parents would have incentives to offer $\left(k^1, s^1\right) \neq \left(k^0, s^0\right)$ to influence their daughter's decision towards carrying out the abortion instead. In particular, there are two different scenarios to consider. First, whenever:

$$\bar{h} \omega\left(\theta_i\right) \geqslant \pi\left(1-s^0\right)+u^{-1}\left(\alpha_i\right) \geqslant\left(1-k^0\right) \bar{h} \omega\left(\theta_i\right)$$

parents offer $s^1=s^0$, since this is the level of financial aid s that minimizes $\mathcal{C}_1^P\left(s ; \pi, \zeta_i\right)$, and

$$k^1 \leqslant \frac{\bar{h} \omega\left(\theta_i\right)-\pi\left(1-s^0\right)-u^{-1}\left(\alpha_i\right)}{\bar{h} \omega\left(\theta_i\right)}<k^0,$$

with the intention to increase the loss in earnings by reducing the time available after giving birth.

Second, whenever:

$$\pi\left(1-s^0\right)+u^{-1}\left(\alpha_i\right) \geqslant \bar{h} \omega\left(\theta_i\right),$$

parents offer $k^0=0$ and

$$s^1=\frac{\pi+u^{-1}\left(\alpha_i\right)-\bar{h} \omega\left(\theta_i\right)}{\pi}>s^0$$

as long as

$$\pi\left(1-s^1\right)+u^{-1}\left(\alpha_i\right)+\mathcal{C}^P\left(s^1 ; \alpha_i^P, \zeta_i\right) \leqslant\left(1-k^0\right) \bar{h} \omega\left(\theta_i\right)+\mathcal{C}^P\left(k^0\right).$$

This implies that parents would overextend on the financial aid and further decrease the monetary cost of carrying out the abortion, as long as the extra help leads to a higher surplus for the entire family with respect to the situation in which the daughter ends up having the child. □

Nonetheless, parents do not always need to overextended in their offerings. For example, consider a situation where the daughter prefers to carry out the abortion:

$$\mathcal{C}_1^D(s^0;\Omega_0,\Omega_i,\Omega_i^P) \leqslant \mathcal{C}_0^D(k^0;\Omega_0,\Omega_i,\Omega_i^P),$$

while her parents hold the same opinion:

$$\mathcal{C}_1^P(s^0;\Omega_0,\Omega_i,\Omega_i^P) \leqslant \mathcal{C}_0^P(k^0;\Omega_0,\Omega_i,\Omega_i^P).$$

Then, parents have no incentives to deviate from the optimal level of financial aid $s^1 = s^0$ and can offer any level of child-rearing help in the set $k^1 \in [0,k^0]$. Similarly, when both the daughter and her parents agree on having the child, parents will offer $k^1 = k^0$ and $s^1 \in [0,s^0]$.

B.1.2 Daughter's Decision to Involve Her Parents (I)

When daughters learn about her parents' characteristics and her own, she is capable of anticipating all optimal future choices from Lemma 1, and Propositions B.1, B.2, B.3, and B.4. We assume women prefer to hold some degree of autonomy in their decision, so they involve their parents only when they anticipate a better deal than the optimal levels of child-rearing help k^0 and financial aid s^0 they could get later anyways.

Proposition B.5. *For a given set of parameters and characteristics* $\left(\Omega_0,\Omega_i,\Omega_i^P\right)$*,* $\exists\ (\underline{\alpha},\overline{\alpha})$ *such that women with* $\alpha_i < \underline{\alpha}$ *would prefer to have an abortion if not convinced by parents otherwise, women with* $\underline{\alpha} \leqslant \alpha_i < \overline{\alpha}$ *would prefer to have the child if not convinced by parents otherwise, and women with* $\alpha_i \geqslant \overline{\alpha}$ *would never carry out an abortion.*

Proof. Let $\alpha_i \in [0,1]$. By Proposition B.1 and Proposition B.2, when not involved in the discussion, parents offer optimal child-rearing help k^0 and financial aid s^0. Thus, by Lemma 1, women would carry out an abortion whenever

$$\alpha_i \leqslant u\left(\left(1-k^0\right)\overline{h}\omega\left(\theta_i\right) - \pi\left(1-s^0\right)\right).$$

However, when a daughter involves her parents in the decision, she might receive an offer $k^1 > k^0$ or $s^1 > s^0$, which allows for a characterization of women types according to the utility cost they face when having an abortion. Therefore, when the following expression holds:

$$u\left(-\pi\left(1-s^0\right)\right) < 0 \leqslant \alpha_i < \underbrace{u\left(\left(1-k^0\right)\overline{h}\omega\left(\theta_i\right) - \pi\left(1-s^0\right)\right)}_{\underline{\alpha}},$$

women prefer to go through with the abortion, though parents could potentially convince them not to by offering $k^1 > k^0$. The assumption that $u(-\pi(1-s^0)) < 0$ implies that no women would prefer to go through with an abortion if she had no child-rearing cost of having the child.

Similarly, when the following expression holds:

$$\underline{\alpha} \leqslant \alpha_i < \underbrace{u\left(\left(1-k^0\right)\overline{h}\omega\left(\theta_i\right)\right)}_{\overline{\alpha}},$$

women prefer to have the child, unless her parents convince her of having the abortion by offering $s^1 > s^0$. However, women for which $\alpha_i \geqslant \overline{\alpha}$, would never have an abortion.

□

In the same way as $\underline{\alpha}$ and $\overline{\alpha}$ separate daughters by the choice they would make when offered child-rearing help k^0 and financial aid s^0, thresholds $\underline{\alpha}^P$ and $\overline{\alpha}^P$ separate parents by their incentives to switch their daughters' choice given the utility α_i^P they face.

Proposition B.6. *For a given set of parameters and characteristics $\left(\Omega_0, \Omega_i, \Omega_i^P\right)$, $\exists \left(\underline{\alpha}^P, \overline{\alpha}^P\right)$ such that parents with $\alpha_i^P < \underline{\alpha}^P$ offer $s^1 > s^0$ to influence their daughter towards having the abortion, parents with $\underline{\alpha}^P \leqslant \alpha_i^P < \overline{\alpha}^P$ offer optimal levels of child-rearing help k^0 and financial aid s^0, and parents with with $\alpha_i^P \geqslant \overline{\alpha}^P$ offer $k^1 > k^0$ to influence their daughter towards having the child.*

Proof. Let $\alpha_i^P \in [0,1]$. By Proposition B.3, a necessary condition for parents to offer $k^1 > k^0$ is that:

$$\pi\left(1-s^0\right) + u^{-1}\left(\alpha_i\right) + \mathcal{C}^P\left(s^0; \alpha_i^P, \zeta_i\right) \geqslant \left(1-k^1\right)\overline{h}\omega\left(\theta_i\right) + \mathcal{C}^P\left(k^1\right).$$

For simplicity, let us assume $\mathcal{C}^P\left(s; \alpha_i^P, \zeta_i\right) = \mathcal{C}^P\left(s; \zeta_i\right) + \alpha_i^P$, and replace k^1 with the expression obtained in Proposition B.3:

$$\pi\left(1-s^0\right) + u^{-1}\left(\alpha_i\right) + \mathcal{C}^P\left(s^0; \zeta_i\right) + \alpha_i^P \geqslant \pi + u^{-1}\left(\alpha_i\right) + \mathcal{C}^P\left(\frac{\overline{h}\omega\left(\theta_i\right) - \pi - u^{-1}\left(\alpha_i\right)}{\overline{h}\omega\left(\theta_i\right)}\right).$$

Hence, when the following expression holds:

$$\alpha_i^P \geqslant \underbrace{\mathcal{C}^P\left(\frac{\overline{h}\omega\left(\theta_i\right) - \pi - u^{-1}\left(\alpha_i\right)}{\overline{h}\omega\left(\theta_i\right)}\right) - \mathcal{C}^P\left(s^0; \zeta_i\right) + \pi s^0}_{\overline{\alpha}^P},$$

parents are willing to offer child-rearing help:

$$k^1 = \frac{\overline{h}\omega\left(\theta_i\right) - \pi - u^{-1}\left(\alpha_i\right)}{\overline{h}\omega\left(\theta_i\right)},$$

allowing them to shift their daughter's decision from carrying out the abortion to having the child.

Similarly, by Proposition B.4, a necessary condition for parents to offer $s^1 > s^0$ is that:

$$\pi\left(1-s^1\right)+u^{-1}\left(\alpha_i\right)+\mathcal{C}^P\left(s^1;\alpha_i^P,\zeta_i\right)\leqslant\left(1-k^0\right)\overline{h}\omega\left(\theta_i\right)+\mathcal{C}^P\left(k^0\right),$$

so that when the following expression holds:

$$\underbrace{\mathcal{C}^P\left(k^0\right)-k^0\overline{h}\omega\left(\theta_i\right)-\mathcal{C}^P\left(\frac{\pi+u^{-1}\left(\alpha_i\right)-\overline{h}\omega\left(\theta_i\right)}{\pi};\zeta_i\right)}_{\underline{\alpha}^P}>\alpha_i^P,$$

parents are willing to offer financial aid:

$$s^1=\frac{\pi+u^{-1}\left(\alpha_i\right)-\overline{h}\omega\left(\theta_i\right)}{\pi},$$

allowing them to shift their daughter's decision from having the child to carrying out the abortion.

Finally, when $\underline{\alpha}^P < \alpha_i^P \leqslant \overline{\alpha}^P$, parents offer optimal levels of child-rearing help k^0 and financial aid s^0 given that switching their daughter's choice do not compensate the increase in the cost of providing additional help. □

B.1.3 Equilibria

Given the characteristics of families and daughters, a household belongs to one of the following four equilibria combining the decision of involving the parents in the choice and carrying out the abortion.

Proposition B.7. *For a given set of parameters and characteristics* $\left(\Omega_0,\Omega_i,\Omega_i^P\right)$*, there are four different equilibria that depend on the cost of carrying out an abortion* $\left(\alpha_i,\alpha_i^P\right)$*.*

- *If* $\alpha_i \geqslant \overline{\alpha}$ *or if* $\overline{\alpha} > \alpha_i \geqslant \underline{\alpha}$ *and* $\alpha_i^P \geqslant \underline{\alpha}^P$ *the equilibrium of the model is given by:*

$$\left(I=0,a=0,k^0\right).$$

- *If* $\overline{\alpha} > \alpha_i \geqslant \underline{\alpha}$ *and* $\alpha_i^P < \underline{\alpha}^P$ *the equilibrium of the model is given by:*

$$\left(I=1,\left(s^1,0\right),a=1\right).$$

- *If $\alpha_i < \underline{\alpha}$ and $\alpha_i^P \leqslant \overline{\alpha}^P$ the equilibrium of the model is given by:*

$$\left(I = 0, a = 1, s^0\right).$$

- *If $\alpha_i < \underline{\alpha}$ and $\alpha_i^P > \overline{\alpha}^P$ the equilibrium of the model is given by:*

$$\left(I = 1, \left(0, k^1\right), a = 0\right).$$

Proof. – Straightforward from Propositions B.5 and B.6. □

B.2 Introduction of the policy

The introduction of the policy determines that the monetary cost associated with the abortion procedure π becomes zero, which immediately implies that $s^0 = s^1 = 0$ in equilibrium. In other words, no daughter requires to seek for financial aid from her parents anymore, so her parents can no longer influence her decision by offering additional financial aid. However, parents might still try to dissuade their daughter from carrying out the abortion by offering additional child-rearing help.

From the point of view of daughters, $\pi = 0$ entails that $\underline{\alpha} = \overline{\alpha} = u\left(\left(1 - k^0\right)\overline{h}\omega\left(\theta_i\right)\right)$, implying that a larger share of women would prefer to carry out an abortion if parents do not propose a better deal by over-extending their child-rearing help offer. Instead, from the point of view of parents, families can no longer convince their daughters of having an abortion since the policy becomes strictly better that any financial aid parents might offer, i.e., $\underline{\alpha}^P \to 0$. Furthermore,

$$\overline{\alpha}^P \to \overline{\overline{\alpha}}^P \equiv \mathcal{C}^P\left(k^1\right) - \mathcal{C}^P\left(0; \zeta_i\right)$$

with

$$k^1 = \frac{\overline{h}\omega\left(\theta_i\right) - u^{-1}\left(\alpha_i\right)}{\overline{h}\omega\left(\theta_i\right)}$$

so over-extending on child-rearing help becomes harder for some families as $\overline{\overline{\alpha}}^P$ increases.

Proposition B.8. *For a given set of parameters and characteristics $\left(T, \overline{h}, \overline{c}, r, \Omega_i, \Omega_i^P\right)$, reducing the monetary cost of carrying out the abortion π implies an increase in the the disutility threshold $\overline{\alpha}^P$ for which parents become indifferent between offering additional child-rearing help k^1 or letting their daughter to go through with her decision.*

Proof. – Let us consider the expression $\overline{\alpha}\left(\Omega_0, \Omega_i, \Omega_i^P\right)$ from Proposition B.6. By taking the derivative with respect to π we get that the threshold $\overline{\alpha}^P$ is decreasing with respect to the monetary cost of the abortion:

$$\begin{aligned}\frac{\partial \overline{\alpha}^P}{\partial \pi} &= -\mathcal{C}_k^P(\cdot)\frac{1}{\overline{h}\omega(\theta_i)} + s^0 + \overbrace{\left(\pi - \mathcal{C}_s^P(\cdot)\right)}^{=0}\frac{1}{\mathcal{C}_{ss}^P(\cdot)} \\ &= s^0 - \frac{\mathcal{C}_k^P(\cdot)}{\overline{h}\omega(\theta_i)} \\ &= s^0 - 1 \leqslant 0.\end{aligned}$$

Given that $\mathcal{C}_s^P(\cdot) = \pi$ and $\mathcal{C}_k^P(\cdot) = \overline{h}\omega(\theta_i)$ by the envelope theorem from the first-order conditions in Propositions B.1 and B.2.

□

Therefore, we can characterize the set of compliers of the policy (C) as follows:

$$C(\theta_i, \zeta_i) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P|\theta_i, \zeta_i\right) + \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P}\int_0^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P|\theta_i, \zeta_i\right).$$

In other words, the policy has no effect among households where the abortion disutility $\left(\alpha_i, \alpha_i^P\right)$ are sufficiently high since the monetary cost plays no role in the decision of daughters. Similarly, households with sufficiently low abortion disutility always opt for going through with the abortion, and thus the policy should have no effect on them either. Therefore, the policy would only end up targeting households where the daughters becomes marginally constrained by the monetary cost because the wealth losses associated with child bearing compensates the cost of having the abortion.

B.3 Comparative statics

Family's socioeconomic status (ζ_i): we shift our attention to the socioeconomic status of families, finding interesting patterns that do not depend on any assumption regarding the joint-distribution of utility costs $\left(\alpha_i, \alpha_i^P\right)$. Particularly, we should expect a lower ratio of abortions among young females from low-income families.

Proposition B.9. (Proposition 1 in Subsection 3.2) *For a given set of parameters and characteristics (Ω_0, θ_i), if the joint distribution of abortion disutility has a positive density in every point, $g\left(\alpha_i, \alpha_i^P|\theta_i, \zeta_i\right) > 0\ \forall\left(\alpha_i, \alpha_i^P\right)$, an increase in the family's socioeconomic status ζ_i increases the likelihood that the daughter would carry out an abortion. In particular, we observe a higher share of abortions with autonomy and cases where parents influence their daughter to keep the child, while we observe less daughters having the child with autonomy.*

Proof. – Let us consider expressions $\underline{\alpha}\left(\zeta_i;\Omega_0,\Omega_i,\alpha_i^P\right)$, $\overline{\alpha}\left(\zeta_i;\Omega_0,\Omega_i,\alpha_i^P\right)$, $\underline{\alpha}^P\left(\zeta_i;\Omega_0,\Omega_i,\alpha_i^P\right)$, and $\overline{\alpha}^P\left(\zeta_i;\Omega_0,\Omega_i,\alpha_i^P\right)$ from Propositions B.5 and B.6. By taking derivatives with respect to ζ_i we get that thresholds $\overline{\alpha}^P$ and $\overline{\alpha}$ do not vary upon changes in the socioeconomic status of families

$$\frac{\partial\overline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}=0$$

$$\frac{\partial\overline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}=-\overbrace{\left(\pi-\mathcal{C}_s^P\left(\cdot\right)\right)}^{=0}\left(\frac{\mathcal{C}_{s,\zeta}^P\left(\cdot\right)}{\mathcal{C}_{ss}^P\left(\cdot\right)}\right)=0$$

where $\mathcal{C}_s^P\left(\cdot\right)-\pi$ becomes zero by applying the envelope theorem from the first-order condition in Proposition B.1. On the other hand, the derivatives with respect to ζ_i show that thresholds $\underline{\alpha}$ and $\underline{\alpha}^P$ are increasing with respect to the socioeconomic status of families

$$\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}=-u_c\left(\cdot\right)\pi\left(\frac{\mathcal{C}_{s,\zeta}^P\left(\cdot\right)}{\mathcal{C}_{ss}^P\left(\cdot\right)}\right)>0$$

$$\frac{\partial\underline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}=-\mathcal{C}_\zeta^P\left(\cdot\right)>0$$

given that $u_c\left(\cdot\right),\pi,\mathcal{C}_{ss}^P\left(\cdot\right)>0$ and $\mathcal{C}_{s,\zeta}^P\left(\cdot\right),\mathcal{C}_\zeta^P\left(\cdot\right)<0$ by definition.

Without making further assumptions on the joint distribution of abortion disutility than $g\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)>0\;\forall\left(\alpha_i,\alpha_i^P\right)$, the share of daughters involving theirs parents and opting to have the child (IC)

$$IC\left(\theta_i,\zeta_i\right)=\int_0^{\underline{\alpha}}\int_{\overline{\alpha}^P}^1 dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)$$

increases with the socioeconomic status ζ_i

$$\frac{\partial IC\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}=\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}\int_{\overline{\alpha}^P}^1 dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)>0$$

similarly to the share of daughters carrying out the abortion (AA) with autonomy

$$AA\left(\theta_i,\zeta_i\right)=\int_0^{\underline{\alpha}}\int_0^{\overline{\alpha}^P} dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)$$

given that

$$\frac{\partial AA\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}=\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\zeta_i}\int_0^{\overline{\alpha}^P} dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)>0$$

On the contrary, the share of daughters choosing to keep the child (AC) with autonomy decreases with SES

$$AC(\theta_i,\zeta_i) = \int_{\underline{\alpha}}^{\overline{\alpha}} \int_{\underline{\alpha}^P}^{1} dG\left(\alpha_i, \alpha_i^P \middle| \theta_i, \zeta_i\right) + \int_{\overline{\alpha}}^{1} \int_{0}^{1} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right)$$

given that

$$\frac{\partial AC(\theta_i,\zeta_i)}{\partial \zeta_i} = -\frac{\partial \underline{\alpha}(\theta_i,\zeta_i)}{\partial \zeta_i} \int_{\underline{\alpha}^P}^{1} dG\left(\underline{\alpha}, \alpha_i^P | \theta_i, \zeta_i\right) - \frac{\partial \underline{\alpha}^P(\theta_i,\zeta_i)}{\partial \zeta_i} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \underline{\alpha}^P | \theta_i, \zeta_i\right) < 0$$

though the share of women involving their parents and choosing to go through with the abortion (IA)

$$IA(\theta_i,\zeta_i) = \int_{\underline{\alpha}}^{\overline{\alpha}} \int_{0}^{\underline{\alpha}^P} dG\left(\alpha_i, \alpha_i^P \middle| \theta_i, \zeta_i\right)$$

becomes ambiguous since

$$\frac{\partial IA(\theta_i,\zeta_i)}{\partial \zeta_i} = -\frac{\partial \underline{\alpha}(\theta_i,\zeta_i)}{\partial \zeta_i} \int_{0}^{\underline{\alpha}^P} dG\left(\underline{\alpha}, \alpha_i^P | \theta_i, \zeta_i\right) + \frac{\partial \underline{\alpha}^P(\theta_i,\zeta_i)}{\partial \zeta_i} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \underline{\alpha}^P | \theta_i, \zeta_i\right) \lesseqgtr 0$$

Finally, the share of abortions out of pregnancies is increasing with SES, since it is driven by

$$\frac{\partial A(\theta_i,\zeta_i)}{\partial \zeta_i} = \frac{\partial \underline{\alpha}(\theta_i,\zeta_i)}{\partial \zeta_i} \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} dG\left(\underline{\alpha}, \alpha_i^P | \theta_i, \zeta_i\right) + \frac{\partial \underline{\alpha}^P(\theta_i,\zeta_i)}{\partial \zeta_i} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \underline{\alpha}^P | \theta_i, \zeta_i\right) > 0$$

so despite the ambiguous effect on the the share of women involving their parents and carrying out the abortion, the rate of abortions should be higher among young females from households with a higher socioeconomic status. □

On the other hand, the introduction of the policy has a significant impact among lower-income families, since a larger proportion of low-income young females find themselves marginally constrained by the same monetary cost π.

Proposition B.10. (Proposition 2 in Subsection 3.2) *For a given set of parameters and characteristics* (Ω_0, θ_i)*, if the distribution of the utility cost of abortion has a positive density in every point,* $g\left(\alpha_i, \alpha_i^P\right) > 0\ \forall \left(\alpha_i, \alpha_i^P\right)$*, an increase in the family's socioeconomic status* ζ_i *decrease the likelihood the household becomes affected by an abortion funding policy.*

Proof. – Let us consider the expression that characterizes the compliers (C) of the policy

$$C(\theta_i,\zeta_i) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right) + \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} \int_{0}^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right)$$

and derivatives from Proposition B.9,

$$\frac{\partial \overline{\alpha}^{P}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta}=\frac{\partial \overline{\alpha}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta}=0 \text{ and } \frac{\partial \underline{\alpha}^{P}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta},\frac{\partial \underline{\alpha}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta}>0$$

Furthermore, notice that it becomes straightforward that

$$\frac{\partial \overline{\overline{\alpha}}^{P}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta}=\frac{\partial \overline{\alpha}^{P}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta}=0$$

so that

$$\frac{\partial C\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta_{i}}=-\frac{\partial \underline{\alpha}\left(\theta_{i},\zeta_{i}\right)}{\partial \zeta_{i}}\int_{\underline{\alpha}^{P}\left(\theta_{i},\zeta_{i}\right)}^{\overline{\alpha}^{P}} dG\left(\underline{\alpha},\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)-\frac{\partial \underline{\alpha}^{P}}{\partial \zeta_{i}}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_{i},\underline{\alpha}^{P}|\theta_{i},\zeta_{i}\right)<0$$

□

Utility cost of abortion $\left(\alpha_{i},\alpha_{i}^{P}\right)$**:** We further explore the implications of having different levels of abortion disutility by comparing abortion ratios across households with different religious backgrounds. Assumption 3 implies that religious women are less likely to have an abortion.

Proposition B.11. (Proposition 3 in Subsection 3.2) *For a given set of parameters and characteristics* $(\Omega_{0},\zeta_{i},\theta_{i})$*, suppose Assumption 3 holds. Then, daughters with a secular background are more likely to carry out the abortion.*

Proof. – Let us consider the following expression characterizing the share of women carrying out an abortion

$$AA\left(\theta_{i},\zeta_{i}\right)+IA\left(\theta_{i},\zeta_{i}\right)=A\left(\theta_{i},\zeta_{i}\right)=\int_{0}^{\overline{\alpha}^{P}}\int_{0}^{\underline{\alpha}} dG\left(\alpha_{i},\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)+\int_{0}^{\underline{\alpha}^{P}}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_{i},\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)$$

and rewrite it in terms of the intergenerational transmission of aversion towards abortions

$$A\left(\theta_{i},\zeta_{i}\right)=\int_{0}^{\overline{\alpha}^{P}}\int_{-\infty}^{\underline{\alpha}-\rho\alpha_{i}^{P}} dF(\varepsilon)dG\left(\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)+\int_{0}^{\underline{\alpha}^{P}}\int_{\underline{\alpha}-\rho\alpha_{i}^{P}}^{\overline{\alpha}-\rho\alpha_{i}^{P}} dF(\varepsilon)dG\left(\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)$$

so that

$$A\left(\theta_{i},\zeta_{i}\right)=\int_{0}^{\overline{\alpha}^{P}} F\left(\underline{\alpha}-\rho\alpha_{i}^{P}\right)dG\left(\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)+\int_{0}^{\underline{\alpha}^{P}} F\left(\overline{\alpha}-\rho\alpha_{i}^{P}\right)-F\left(\underline{\alpha}-\rho\alpha_{i}^{P}\right)dG\left(\alpha_{i}^{P}|\theta_{i},\zeta_{i}\right)$$

Then, we can easily compute the difference in abortion ratio between religious and secular households ($A(R) - A(S)$) by the following expression

$$A\left(R;\theta_i,\zeta_i\right) - A\left(S;\theta_i,\zeta_i\right) = \int_0^{\overline{\alpha}^P} F\left(\underline{\alpha} - \rho\alpha_i^P\right)\left[G^R\left(\alpha_i^P|\theta_i,\zeta_i\right) - dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right)\right] +$$

$$\int_0^{\underline{\alpha}^P} \left(F\left(\overline{\alpha} - \rho\alpha_i^P\right) - F\left(\underline{\alpha} - \rho\alpha_i^P\right)\right)\left[dG^R\left(\alpha_i^P|\theta_i,\zeta_i\right) - dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right)\right]$$

Since $G^R\left(\alpha_i^P|\theta_i,\zeta_i\right)$ first-order stochastically dominates $G^S\left(\alpha_i^P|\theta_i,\zeta_i\right)$, we have the expression is non positive for any given (θ_i,ζ_i). □

Next, we turn our attention to the effects of the policy among households with different religious backgrounds.

Proposition B.12. (Proposition 4 in Subsection 3.2)

For a given set of parameters and characteristics $(\Omega_0,\zeta_i,\theta_i)$*, suppose Assumption 3 holds. Then, religious families are more likely to be affected by the introduction of the policy if one of the following sufficient conditions hold:*

1. *Assumption 2,*
2. $g^R\left(\alpha_i^P|\theta_i,\zeta_i\right) = g^S\left(\alpha_i^P|\theta_i,\zeta_i\right)$ *for some* $\alpha_i^P < \underline{\alpha}^P$*.*

Proof. – Let us consider the expression that characterizes the compliers (C) of the policy

$$C\left(\theta_i,\zeta_i\right) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right) + \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P}\int_0^{\overline{\alpha}} dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)$$

and use the intergenerational transmission of aversion towards abortions structure to rewrite the expression integrating only on parental disutility

$$C\left(\theta_i,\zeta_i\right) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P}\int_{\underline{\alpha}-\rho\alpha_i^P}^{\overline{\alpha}-\rho\alpha_i^P} dF(\varepsilon)dG\left(\alpha_i^P|\theta_i,\zeta_i\right) + \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P}\int_{-\infty}^{\overline{\alpha}-\rho\alpha_i^P} dF(\varepsilon)dG\left(\alpha_i^P|\theta_i,\zeta_i\right)$$

so that

$$C\left(\theta_i,\zeta_i\right) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P}\left(F(\overline{\alpha}-\rho\alpha_i^P) - F(\underline{\alpha}-\rho\alpha_i^P)\right)dG\left(\alpha_i^P|\theta_i,\zeta_i\right) +$$

$$\int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} F(\overline{\alpha}-\rho\alpha_i^P)dG\left(\alpha_i^P|\theta_i,\zeta_i\right)$$

which allows to compute $C(R) - C(S)$ by the following expression

$$C\left(R;\theta_i,\zeta_i\right)-C\left(S;\theta_i,\zeta_i\right) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} \Big(F(\overline{\alpha}-\rho\alpha_i^P)-F(\underline{\alpha}-\rho\alpha_i^P)\Big)\Big(dG^R\left(\alpha_i^P|\theta_i,\zeta_i\right)-dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right)\Big) + \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} F(\overline{\alpha}-\rho\alpha_i^P)\Big(dG^R\left(\alpha_i^P|\theta_i,\zeta_i\right)-dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right)\Big)$$

Since $G^R\left(\alpha_i^P|\theta_i,\zeta_i\right)$ first-order stochastically dominates $G^S\left(\alpha_i^P|\theta_i,\zeta_i\right)$, we have that assuming $g^R\left(\alpha_i^P|\theta_i,\zeta_i\right) = g^S\left(\alpha_i^P|\theta_i,\zeta_i\right)$ for some $\alpha_i^P < \underline{\alpha}^P$ becomes sufficient for

$$dG^R\left(\alpha_i^P|\theta_i,\zeta_i\right) - dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right) > 0$$

for all $\alpha_i^P > \underline{\alpha}^P$, so there is a larger share of compliers among families with a religious background rather than households with a secular background.

Similarly, if Assumption 2 holds, we obtain

$$\int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} F(\overline{\alpha}-\rho\alpha_i^P)\Big(dG^R\left(\alpha_i^P|\theta_i,\zeta_i\right)-dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right)\Big) \geqslant \left|\int_{\underline{\alpha}^P}^{\overline{\alpha}^P} \Big(F(\overline{\alpha}-\rho\alpha_i^P)-F(\underline{\alpha}-\rho\alpha_i^P)\Big)\Big(dG^R\left(\alpha_i^P|\theta_i,\zeta_i\right)-dG^S\left(\alpha_i^P|\theta_i,\zeta_i\right)\Big)\right|$$

thereby implying there is a larger share of compliers among families with a religious background rather than households with a secular background. □

Daughter's skill level (θ_i):

The comparative statics of a daughter's skill level can offer insight into the interpertation of the autonomy- versus the price-effect of the policy, in Section B.4 below. In particular, we leverage non-monotonic patterns in the abortion ratios by schooling observed in the data to further support the intuition of a low ρ. To begin with, we need to eliminate an additional source of non-monotonic behavior in the model stemming from the flexible characterization of $\mathcal{C}_k^P(\cdot)$ and $\omega(\theta_i)$, which pin down the optimal child-rearing help offered by parents, $k^0 = \mathcal{C}_k^{P-1}\left(\overline{h}\omega\left(\theta_i\right)\right)$, as shown in Proposition B.2. We dismiss the alternative where $k^0\left(\theta_i;\overline{h}\right)$ behaves non-monotonically and impose that $\mathcal{C}^P(k)$ is not sufficiently convex in the interval $k \in [0,1]$, meaning that the child-rearing help from parents increases faster than wages as women become more skilled.

Proposition B.13. *For a given set of parameters and characteristics (Ω_0, ζ_i), if $\mathcal{C}^P(k)$ is not sufficiently convex, i.e., $\mathcal{C}_{kk}^P(k) < \overline{\mathcal{C}}^P \;\; \forall k \in [0,1]$, an increase in the skill level θ_i of the daughter has an ambiguous effect on the likelihood she would carry out an abortion. However, she becomes less* *likely of having the child when involving her parents.*

Proof. – Let us consider expressions $\underline{\alpha}\left(\theta_i;\Omega_0,\alpha_i,\Omega_i^P\right)$, $\overline{\alpha}\left(\theta_i;\Omega_0,\alpha_i,\Omega_i^P\right)$, $\underline{\alpha}^P\left(\theta_i;\Omega_0,\alpha_i,\Omega_i^P\right)$, and $\overline{\alpha}^P\left(\theta_i;\Omega_0,\alpha_i,\Omega_i^P\right)$ from Propositions B.5 and B.6. By taking derivatives with respect to θ_i we get that the thresholds $\underline{\alpha}^P$ and $\overline{\alpha}^P$ are increasing with respect to the skill level of daughters

$$\frac{\partial\underline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}=\overbrace{\left(\mathcal{C}_k^P\left(\cdot\right)-\overline{h}\omega\left(\theta_i\right)\right)}^{=0}\frac{\partial k^0}{\partial\theta_i}+\frac{\mathcal{C}_s^P\left(\cdot\right)\overline{h}}{\pi}\omega_\theta\left(\theta_i\right)=\overline{h}\omega_\theta\left(\theta_i\right)>0$$

$$\frac{\partial\overline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}=\frac{\mathcal{C}_k^P\left(\cdot\right)\left(\pi+u^{-1}\left(\alpha_i\right)\right)\omega_\theta\left(\theta_i\right)}{\overline{h}\omega\left(\theta_i\right)^2}=\left(\pi+u^{-1}\left(\alpha_i\right)\right)\frac{\omega_\theta\left(\theta_i\right)}{\omega\left(\theta_i\right)}>0$$

where $\mathcal{C}_k^P\left(\cdot\right)=\overline{h}\omega\left(\theta_i\right)$ and $\mathcal{C}_s^P\left(\cdot\right)=\pi$ by applying the envelope theorem from the first-order conditions in Propositions B.1 and B.2.

On the other hand, the derivatives with respect to θ_i of the thresholds $\underline{\alpha}$ and $\overline{\alpha}$ are identical

$$\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}=\frac{\partial\overline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}=\frac{u_c\left(\cdot\right)\overline{h}\omega_\theta\left(\theta_i\right)}{\mathcal{C}_{pp}^P\left(\cdot\right)}\Big(\left(1-k^0\right)\mathcal{C}_{pp}^P\left(\cdot\right)-\overline{h}\omega\left(\theta_i\right)\Big)\lesseqgtr 0$$

and strictly negative as long as $\mathcal{C}_{pp}^P\left(\cdot\right)<\dfrac{\overline{h}\omega\left(\theta_i\right)}{1-k^0\left(\theta_i\right)}\forall\theta_i$.

Then, as long as $g\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)>0\;\forall\left(\alpha_i,\alpha_i^P\right)$, the share of daughters involving theirs parents and opting to have the child (IC)

$$IC\left(\theta_i,\zeta_i\right)=\int_0^{\underline{\alpha}}\int_{\overline{\alpha}^P}^1 dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)$$

is decreasing with respect to the skill level θ_i of daughters

$$\frac{\partial IC\left(\theta_i,\zeta_i\right)}{\partial\theta_i}=\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\overline{\alpha}^P}^1 dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)-\frac{\partial\overline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{\underline{\alpha}} dG\left(\alpha_i,\overline{\alpha}^P|\theta_i,\zeta_i\right)<0$$

However, the effect becomes ambiguous when considering the share of daughters involving their parents and choosing to go through with the abortion (IA). Similarly for those opting to have the child (AC) or carrying out the abortion (AA) with autonomy. For example, for the first group

$$IA\left(\theta_i,\zeta_i\right)=\int_{\underline{\alpha}}^{\overline{\alpha}}\int_0^{\underline{\alpha}^P} dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)$$

we have that

$$
\begin{aligned}
\frac{\partial IA\left(\theta_i,\zeta_i\right)}{\partial\theta_i} &= \frac{\partial\overline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{\underline{\alpha}^P} dG\left(\overline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)-\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{\underline{\alpha}^P} dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)\\
&\quad +\frac{\partial\underline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i,\underline{\alpha}^P|\theta_i,\zeta_i\right)\\
&= \frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{\underline{\alpha}^P}\Big(dG\left(\overline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)-dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)\Big)\\
&\quad +\frac{\partial\underline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i,\underline{\alpha}^P|\theta_i,\zeta_i\right)\lesseqgtr 0
\end{aligned}
$$

Similarly, for the second group

$$
AC\left(\theta_i,\zeta_i\right)=\int_{\underline{\alpha}}^{\overline{\alpha}}\int_{\underline{\alpha}^P}^{1} dG\left(\alpha_i,\alpha_i^P\middle|\,\theta_i,\zeta_i\right)+\int_{\overline{\alpha}}^{1}\int_0^{1} dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)
$$

we have that

$$
\begin{aligned}
\frac{\partial AC\left(\theta_i,\zeta_i\right)}{\partial\theta_i} &= \frac{\partial\overline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\underline{\alpha}^P}^{1} dG\left(\overline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)-\frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\underline{\alpha}^P}^{1} dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)\\
&\quad -\frac{\partial\underline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i,\underline{\alpha}^P|\theta_i,\zeta_i\right)-\frac{\partial\overline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{1} dG\left(\overline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)\\
&= -\frac{\partial\overline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\left(\int_0^{\underline{\alpha}^P} dG\left(\overline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)+\int_{\underline{\alpha}^P}^{1} dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)\right)\\
&\quad -\frac{\partial\underline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i,\underline{\alpha}^P|\theta_i,\zeta_i\right)\lesseqgtr 0
\end{aligned}
$$

and for the third group

$$
AA\left(\theta_i,\zeta_i\right)=\int_0^{\underline{\alpha}}\int_0^{\overline{\alpha}^P} dG\left(\alpha_i,\alpha_i^P|\theta_i,\zeta_i\right)
$$

we have that

$$
\frac{\partial AA\left(\theta_i,\zeta_i\right)}{\partial\theta_i} = \frac{\partial\underline{\alpha}\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{\overline{\alpha}^P} dG\left(\underline{\alpha},\alpha_i^P|\theta_i,\zeta_i\right)+\frac{\partial\overline{\alpha}^P\left(\theta_i,\zeta_i\right)}{\partial\theta_i}\int_0^{\underline{\alpha}} dG\left(\alpha_i,\overline{\alpha}^P|\theta_i,\zeta_i\right)\lesseqgtr 0
$$

□

Similarly, the effects of the policy across different levels of daughters' skills become ambiguous without further assumptions about the joint distribution of disutility $G\left(\alpha_i,\alpha_i^P\right)$ and ρ.

Proposition B.14. *For a given set of parameters and characteristics* (Ω_0,ζ_i)*, if* $\mathcal{C}^P(k)$ *is not sufficiently convex, i.e.,* $\mathcal{C}^P_{kk}(k)<\overline{\mathcal{C}}^P\ \ \forall k\in[0,1]$*, an increase in the skill level* θ_i *of the daughter has* *an ambiguous effect on the likelihood the household becomes affected by the introduction of the abortion funding policy.*

Proof. – Let us consider the expression that characterizes the compliers (C) of the policy

$$C(\theta_i, \zeta_i) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right) + \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} \int_{0}^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right)$$

and derivatives from Proposition B.13,

$$\frac{\partial \underline{\alpha}^P(\theta_i, \zeta_i)}{\partial \theta_i}, \frac{\partial \overline{\alpha}^P(\theta_i, \zeta_i)}{\partial \theta_i} > 0 \text{ and } \frac{\partial \underline{\alpha}(\theta_i, \zeta_i)}{\partial \theta_i} = \frac{\partial \overline{\alpha}(\theta_i, \zeta_i)}{\partial \theta_i} < 0$$

Clearly, $\pi = 0$ would imply that

$$\frac{\partial \overline{\overline{\alpha}}^P(\theta_i, \zeta_i)}{\partial \theta_i} > \frac{\partial \alpha_2^P(\theta_i, \zeta_i)}{\partial \theta_i} > 0$$

So that

$$\begin{aligned}
\frac{\partial C(\theta_i, \zeta_i)}{\partial \theta_i} = \frac{\partial \overline{\alpha}(\theta_i, \zeta_i)}{\partial \theta_i} \int_{\underline{\alpha}^P}^{\overline{\overline{\alpha}}^P} dG\left(\overline{\alpha}, \alpha_i^P | \theta_i, \zeta_i\right) - \frac{\partial \underline{\alpha}^P(\theta_i, \zeta_i)}{\partial \theta_i} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \underline{\alpha}^P | \theta_i, \zeta_i\right) \\
- \frac{\partial \overline{\alpha}^P(\theta_i, \zeta_i)}{\partial \theta_i} \int_{0}^{\underline{\alpha}} dG\left(\alpha_i, \overline{\alpha}^P | \theta_i, \zeta_i\right) \\
- \frac{\partial \underline{\alpha}(\theta_i, \zeta_i)}{\partial \theta_i} \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} dG\left(\underline{\alpha}, \alpha_i^P | \theta_i, \zeta_i\right) + \frac{\partial \overline{\overline{\alpha}}^P(\theta_i, \zeta_i)}{\partial \theta_i} \int_{0}^{\overline{\alpha}} dG\left(\alpha_i, \overline{\overline{\alpha}}^P | \theta_i, \zeta_i\right) \lesseqgtr 0
\end{aligned}$$

□

B.4 Autonomy vs price effects of the policy

The model predicts that two types of daughters will be affected from an abortion funding policy, and thus switch their abortion decision. On the one hand, a fraction of the new abortions arise from the policy limiting parents to overextend on the child-rearing help, so daughters will proceed with the abortion without facing the external considerations of their families, who strongly oppose abortions. We label these daughters as being 'autonomy-affected' by the policy. On the other hand, eliminating the monetary price of abortions makes the procedure more appealing among households with a moderate aversion against abortions. We label these daughters as 'price affected'.

The model predicts that the introduction of the policy increases the ratio of abortions by a combination of both effects. However, Assumption 2 implies that autonomy-affected, rather than price-affected daughters, are the ones driving the effects.

Proposition B.15. (Proposition 5 in Subsection 3.2) *For a given set of parameters and characteristics* $(\Omega_0, \zeta_i, \theta_i)$*, suppose Assumption 2 holds. Then, autonomy-affected, rather than price-affected daughters, are the ones driving the increase in the abortion ratio.*

Proof. – Let us consider the expression that characterizes the compliers (C) of the policy and split them between price-affected

$$C(P; \theta_i, \zeta_i) = \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} \int_{\underline{\alpha}}^{\overline{\alpha}} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right)$$

and autonomy-affected daughters

$$C(A; \theta_i, \zeta_i) = \int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} \int_{0}^{\underline{\alpha}} dG\left(\alpha_i, \alpha_i^P | \theta_i, \zeta_i\right)$$

thereby eliminating the monetary cost simultaneously affected both type of households. Then, we can use the intergenerational transmission of aversion towards abortions to rewrite the same expressions by integrating only on parental disutility, so that $C(A; \theta_i, \zeta_i) > C(P; \theta_i, \zeta_i)$ as long as

$$\int_{\overline{\alpha}^P}^{\overline{\overline{\alpha}}^P} F(\underline{\alpha} - \rho\alpha_i^P) dG\left(\alpha_i^P | \theta_i, \zeta_i\right) > \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} \left(F(\overline{\alpha} - \rho\alpha_i^P) - F(\underline{\alpha} - \rho\alpha_i^P)\right) dG\left(\alpha_i^P | \theta_i, \zeta_i\right)$$

Assumption 2 immediately implies that the inequality $C(A; \underline{\theta}, \zeta_i) > C(P; \underline{\theta}, \zeta_i)$ holds. First, the density of parents' disutility towards abortion $g\left(\alpha_i^P | \theta_i, \zeta_i\right)$ weakly increases with respect to α_i^P and concentrates in the region spanned by

$$\alpha_i^P \in \left[\overline{\alpha}^P(\underline{\theta}, \Omega_0, \zeta_i) - \underline{\eta}, \overline{\alpha}^P(\underline{\theta}, \Omega_0, \zeta_i) + \overline{\eta}\right]$$

for some arbitrary $\left(\underline{\eta}, \overline{\eta}\right)$. In addition, households face a low intergenerational transmission of abortion disutility (ITAD), i.e.,

$$\rho < \frac{\underline{\alpha}(\underline{\theta}, \zeta_i)}{\overline{\alpha}^P(\underline{\theta}, \zeta_i)}$$

so households become more likely to be among compliers when $\alpha_i^P \in \left[\overline{\alpha}^P(\underline{\theta}, \zeta_i), \overline{\overline{\alpha}}^P(\underline{\theta}, \zeta_i)\right]$ rather than $\alpha_i^P \in \left[\underline{\alpha}^P(\underline{\theta}, \zeta_i), \overline{\alpha}^P(\underline{\theta}, \zeta_i)\right]$.

Proposition B.14 shows that $\overline{\alpha}^P$ decreases with respect to daughters skill level θ_i, so the fraction of autonomy-affected households should also increase given that the mass of families would now locate to the right of the threshold. On top of that, Proposition B.14 determines that

$\overline{\overline{\alpha}}$ increases with respect to θ_i, further expanding the number of autonomy-affected compliers due to the policy. As a result, Assumption 2 implies that $C(A; \theta_i, \zeta_i) > C(P; \theta_i, \zeta_i)$. $\square$

C Supporting Evidence for Assumption 2

In this section, we discuss the validity of the following assumption in the Israeli context

Assumption 2. *The intergenerational transmission of abortion disutility (ITAD) is relatively low, such that*

$$\rho < \frac{\underline{\alpha}\left(\underline{\theta}, \zeta_i\right)}{\overline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)}$$

where $\underline{\theta}$ represents a daughter with the lowest level of skill, and the density of parents' disutility towards abortion $g\left(\alpha_i^P|\theta_i, \zeta_i\right)$ weakly increases with respect to α_i^P and concentrates in the region spanned by

$$\alpha_i^P \in \left[\overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right) - \underline{\eta}, \overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right) + \overline{\eta}\right]$$

for some arbitrary $\left(\underline{\eta}, \overline{\eta}\right)$.

In particular, we compare the empirical predictions of the model and the patterns we observe in the Israeli administrative data to conclude that Assumption 2 becomes the best candidate to match the two. In addition, we provide further arguments suggesting the assumptions is sensible for the context of households with young pregnant daughters in Israel.

C.1 Empirical results: Abortion decisions and policy effects by schooling

Since we do not observe the level of skill of daughters θ_i, we explore the abortion ratios and its changes after the introduction of the policy in Israel by using schooling (women's education level prior to conception) as a proxy.

Table A.2 shows the abortion ratio is higher among young females with at least a high school degree, reaching 81%, while the take-up rate of abortion declines to 68% for high school dropouts. Furthermore, Table A.2 suggests the introduction of the policy had no significant effect on the abortion ratio among young females without a high school degree, while for those with at least a high school degree the abortion ratio increases by 3.4 percentage points. Importantly, the second row ("Differential Effect") reports the formal test for a statistical difference between the two groups. Specifically, it reports the results from a pulled regression, where a group indicator is interacted with all other terms in the regression. The differential effect in column (2) is the estimated coefficient treatment effect from the interaction of having high-school or vocational training at the timing of conception (compared to the baseline category – no high school diploma). Indeed, we see the effect is statistically different across the two education groups.

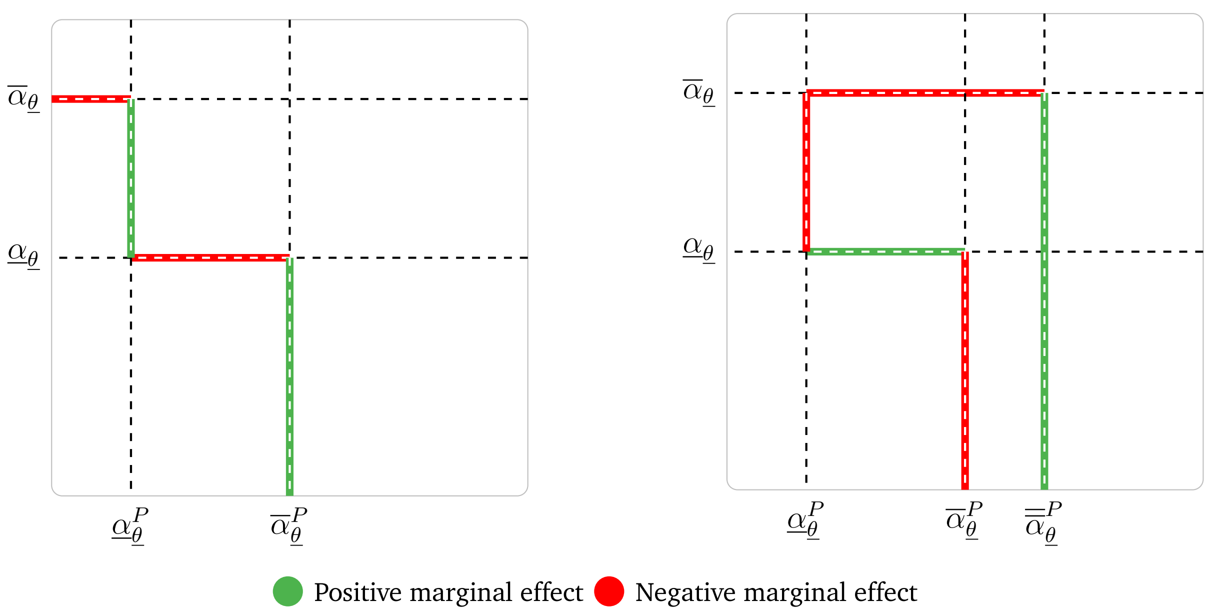
C.2 Empirical predictions by skill level

In this Subsection, we discuss how the empirical results in C.1 can inform us regarding the validity of Assumption 2. Without further assumption about the joint distribution of abortion disutility $G\left(\alpha_i, \alpha_i^P\right)$, Proposition B.13 presents an ambiguous relationship between daughter's skills θ_i and the abortion ratio. For example, let $\underline{\theta}$ represent a daughter with low skills, Figure C.1a shows that a marginal increment in the daughter's skill level θ_i would represent an increase in the abortion ratio as long as households concentrate around regions colored in green instead of red. Similarly, Theorem B.14 suggests a similar result, in the case of the abortion funding policy, represented graphically by C.1b.

Figure C.1: Marginal effects of daughter's skill level (θ_i)

(a) Abortion ratio

(b) Compliers of the policy's shift



Notes: The figure illustrates the relationship between daughter's level of skills and the abortion ratio in the baseline, on the one hand, and the change in the abortion ratio after the elimination of the monetary cost of the abortion, on the other hand. Both panels consider the case of a low-skill daughter, namely $\theta_i = \underline{\theta}$. Panel (a) displays the marginal changes in the abortion ratio in the baseline upon an increase in the daughter's skill level, as shown in Proposition B.13; and Panel (b) presents the marginal changes in the effects of the policy upon an increase in the daughter's skill level, as shown in Theorem B.14.

The empirical patterns in the Israeli administrative data indicate that both the baseline abortion ratios and the policy's effect are higher for higher skilled daughters. Formally:

$$\left.\frac{\partial A}{\partial \theta_i}\right|_{\theta_i=\underline{\theta}} > 0 \quad \text{and} \quad \left.\frac{\partial C}{\partial \theta_i}\right|_{\theta_i=\underline{\theta}} > 0.$$

Within our framework, there are multiple assumptions we could make for the model to predict the patterns we observe in the data. However, we lean in favor of the most simple set of sufficient conditions required for attaining the same predictions, Assumption 2. Namely, we opt for a low intergenerational transmission of aversion towards abortion (ITAD)

$$\rho < \frac{\underline{\alpha}\left(\underline{\theta}, \zeta_i\right)}{\overline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)}$$

where $\underline{\theta}$ represents a daughter with the lowest level of skill, and for the density of parents' disutility towards abortion $g\left(\alpha_i^P | \theta_i, \zeta_i\right)$ to weakly increase with respect to α_i^P and concentrate in the region spanned by

$$\alpha_i^P \in \left[\overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right) - \underline{\eta}, \overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right) + \overline{\eta}\right]$$

for some arbitrary $\left(\underline{\eta}, \overline{\eta}\right)$. We describe below how Assumption 2 implies each one of those empirical predictions.

Abortion ratio by daughter's skill level (θ_i)

Let $\underline{\theta}$ represent the lowest level of skills among daughters. Then, we use the derivative of the abortion ratio with respect to daughter's skills (from Proposition B.13), define the expression around $\theta_i = \underline{\theta}$

$$\left.\frac{\partial A\left(\theta_i, \zeta_i\right)}{\partial \theta_i}\right|_{\theta_i = \underline{\theta}} = \frac{\partial AA\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} + \frac{\partial IA\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} > 0$$

and rewrite it in terms of the intergenerational transmission of abortion disutility, so that

$$\begin{aligned}\frac{\partial A\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} = \frac{\partial \overline{\alpha}\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i}&\left(\int_0^{\underline{\alpha}^P} f\left(\overline{\alpha} - \rho\alpha_i^P\right) dG\left(\alpha_i^P | \underline{\theta}, \zeta_i\right) + \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} f\left(\underline{\alpha} - \rho\alpha_i^P\right) dG\left(\alpha_i^P | \underline{\theta}, \zeta_i\right)\right) + \\ &\frac{\partial \underline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i}\left(F\left(\overline{\alpha} - \rho\underline{\alpha}^P\right) - F\left(\underline{\alpha} - \rho\underline{\alpha}^P\right)\right) g\left(\underline{\alpha}^P | \underline{\theta}, \zeta_i\right) + \\ &\frac{\partial \overline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} F\left(\underline{\alpha} - \rho\overline{\alpha}^P\right) g\left(\overline{\alpha}^P | \underline{\theta}, \zeta_i\right) > 0\end{aligned}$$

where the first term represents the red lines in Figure C.1a, while the second and third terms represent the green lines.

Moreover, the same figure help us to visualize how the model predicts the pattern observed in the data when imposing Assumption 2. For instance, $f\left(\overline{\alpha} - \rho\alpha_i^P\right)$ and $f\left(\underline{\alpha} - \rho\alpha_i^P\right)$ decrease as ρ grows larger, while $F\left(\underline{\alpha} - \rho\overline{\alpha}_i^P\right)$ moves in the opposite direction. Intuitively, parents offer more optimal child-rearing help k^0 to highly skilled daughters. Thus, it becomes increasingly challenging for families to overextend themselves on child-rearing help, which reduces their ability to convince their daughters to keep the child. Conversely, the additional child-rearing help mitigates the loss associated with having the child, reducing daughter's incentives to carrying out the abortion. The assumption of a lower ρ implies that it is more likely to observe the former.

Nonetheless, the ITAD assumption would not be enough if there were a mass of households at any point in the region spanned by $\alpha_i^P \in \left[0, \overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right)\right]$, which cannot happen due to the assumption that $g\left(\alpha_i^P|\theta_i, \zeta_i\right)$ concentrates around $\overline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)$ and weakly increases with respect to α_i^P around that same region.

Effect of the policy by daughter's skill level (θ_i)

We repeat the previous approach and use the derivative of the change in the abortion ratio due to the policy with respect to daughter's skills (from Theorem B.14). Next, we define the equation around $\theta_i = \underline{\theta}$

$$\left.\frac{\partial C\left(\theta_i, \zeta_i\right)}{\partial \theta_i}\right|_{\theta_i = \underline{\theta}} > 0$$

so then we can rewrite it in terms of the intergenerational transmission of abortion disutility

$$\begin{aligned}\frac{\partial C\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} = \frac{\partial \overline{\alpha}\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} \int_{\underline{\alpha}^P}^{\overline{\overline{\alpha}}^P} f(\overline{\alpha} - \rho\alpha_i^P) dG\left(\alpha_i^P|\underline{\theta}, \zeta_i\right) - \frac{\partial \overline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} F\left(\underline{\alpha} - \rho\overline{\alpha}^P\right) g\left(\overline{\alpha}^P|\underline{\theta}, \zeta_i\right) \\ - \frac{\partial \underline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i}\left(F\left(\overline{\alpha} - \rho\underline{\alpha}^P\right) - F\left(\underline{\alpha} - \rho\underline{\alpha}^P\right)\right) g\left(\underline{\alpha}^P|\underline{\theta}, \zeta_i\right) \\ - \frac{\partial \underline{\alpha}\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} \int_{\underline{\alpha}^P}^{\overline{\alpha}^P} f\left(\underline{\alpha} - \rho\alpha_i^P\right) dG\left(\alpha_i^P|\underline{\theta}, \zeta_i\right) + \frac{\partial \overline{\overline{\alpha}}^P\left(\underline{\theta}, \zeta_i\right)}{\partial \theta_i} F\left(\overline{\alpha} - \rho\overline{\overline{\alpha}}^P\right) g\left(\overline{\overline{\alpha}}^P|\underline{\theta}, \zeta_i\right) > 0\end{aligned}$$

where the first three terms represent the red lines in Figure C.1b. Similarly, the fourth and fifth terms represent the green lines in the same figure.

Interestingly, comparing both plots in Figure C.1 reinforces the idea that Assumption 2 – the low ITAD assumption – holds since one cannot achieve both patterns with a larger ρ. In particular, notice that only a ρ that complies with Assumption 2 intersects a green line in both figures. Nevertheless, for the model to predict the increasing pattern in the change of the abortion ratio by schooling after the introduction policy, it becomes necessary to introduce the assumption that $g\left(\alpha_i^P|\theta_i, \zeta_i\right)$ is weakly increasing with respect to α_i^P and concentrates in the region spanned by

$$\alpha_i^P \in \left[\overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right) - \underline{\eta}, \overline{\alpha}^P\left(\underline{\theta}, \Omega_0, \zeta_i\right) + \overline{\eta}\right]$$

for some arbitrary $(\underline{\eta}, \overline{\eta})$. In particular, because $F\left(\overline{\alpha} - \rho\overline{\overline{\alpha}}^P\right) > F\left(\underline{\alpha} - \rho\overline{\alpha}^P\right)$, so the last term in the expression dominates over the second one as long as $g\left(\overline{\alpha}^P|\underline{\theta}, \zeta_i\right) \leqslant g\left(\overline{\overline{\alpha}}^P|\underline{\theta}, \zeta_i\right)$.

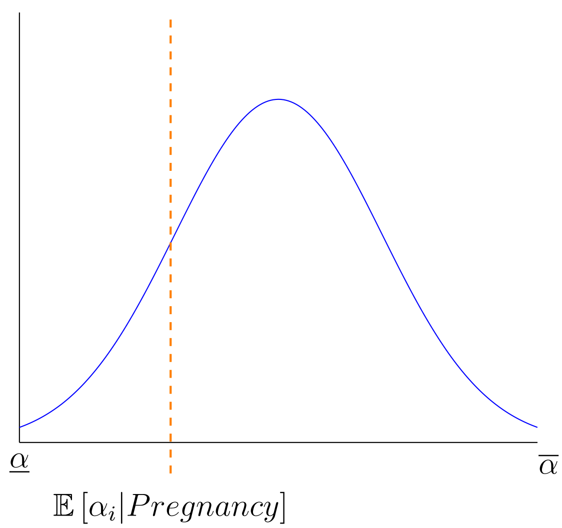
Intuitively, we impose to the model that, among households with high-skilled daughters, it is more likely to observe compliers than always-takers. In other words, that the introduction of the policy turned impossible for many parents with a high aversion towards abortion α_i^P to overextend themselves on child-rearing help, implying that the daughters carried out with the abortion procedure with autonomy.

C.3 Further evidence

There are several intuitive justifications for Assumption 2 in the Israei context and data. First, our analysis specifically concentrates on households where daughters become aware they are pregnant (outside of marriage) during their early adulthood. As some of the literature had suggested before, it is reasonable to contemplate that daughters in our sample have a lower abortion disutility compared to their non-pregnant counterparts, on average (Levine and Staiger, 2004; Ananat et al., 2009); though, the same does not necessarily hold for their parents, or at least not to the same extent (see illustration in Figure C.2). Therefore, it becomes reasonable to expect a relatively low ρ among households in our sample. Second, 66% of conceptions among young, unmarried women end in abortion in Israel, implying the average disutility towards abortions is close to the $\overline{\alpha}_i^P$ threshold, if ρ is relativly low.

Finally, the considerable take-up rate in abortions among the religious Jewish population strengthens Assumption 2, since the figures would suggest only mild differences in average disutility towards abortions between families with religious and secular backgrounds. In our framework, we assume $G^R\left(\alpha_i^P|\theta_i, \zeta_i\right)$ first-order stochastically dominates $G^S\left(\alpha_i^P|\theta_i, \zeta_i\right)$, so a closer proximity between the conditional cumulative distribution functions across groups would imply a reduction in the gap between $\mathbb{E}\left[\alpha_i|R, \theta_i, \zeta_i\right]$ and $\mathbb{E}\left[\alpha_i|S, \theta_i, \zeta_i\right]$. Intuitively, our model suggests the utility costs among religious households should not be excessively high; otherwise, we would observe a much lower ratio of abortions among the religious Jewish population. Similarly, the utility costs among secular households should not be excessively low, since we would not observe secular daughters having the child. Then, a positive effect of the policy hints there should be a mass of households to the right of $\overline{\alpha}^P\left(\overline{\theta}, \underline{\zeta}\right)$, where $\overline{\theta}$ and $\underline{\zeta}$ represents households with the highest skill level for daughters and the lowest SES for families, respectively. Furthermore, the fact that abortion take up rates did not increase up to 100% for either group would suggest the existence of secular and religious households with a disutility towards abortions to the right of $\overline{\overline{\alpha}}^P\left(\underline{\theta}, \overline{\zeta}\right)$, where $\underline{\theta}$ and $\overline{\zeta}$ represents households with the lowest skill level for daughters and the highest SES for families, respectively. The benchmark $\overline{\alpha}^P\left(\underline{\theta}, \zeta_i\right)$ we use for Assumption 2 lies within the region spanned by those thresholds.

Figure C.2: Selection into out-of-marriage pregnancies



Notes: This figure illustrates the assumption that daughters who become aware they are pregnant (out of marriage) during their early adulthood holds a lower average utility cost of abortion compared to their non-pregnant counterparts; though, the same does not necessarily hold true for their parents, implying that in our sample: $\sigma_{\alpha_i} < \sigma_{\alpha_i^P}$.

D Israeli Context

D.1 Abortion Committee

Israel's abortion committee process is rare in the global context and motivated by it's publicly stated demographic agenda. The committee process for obtaining an abortion was motivated by medical concerns that abortion could affect a woman's future fertility (Amir, 2015). The concern over fertility was aligned with Israel's demographic project, which aims to reverse the decrease in the global Jewish population as a result of the Holocaust.[1] In pursuit of the demographic project, Israel has adopted aggressive, pro-natalist policies such as subsidized daycare, monthly child allowances, tax deductions, paid parental leave, covered infertility treatments, and oocyte cryopreservation (egg freezing) under the national health insurance system. As part of it's demographic project contraception is not covered by the national health insurance and abortions are illegal without prior approval from the committee. Consequently, Israel's birth rate is the highest in the developed world.

Typically, once a woman becomes pregnant and is interested in having an abortion, her doctor directs her to make an appointment with a committee. The committee is composed of two medical professionals and a social worker, one of whom must be a woman. Israel has a national health-care system that oversees the abortion committee. People may choose to seek care from private providers, but if a woman decides to have an abortion through a private doctor, she is still required by law to go through the committee process for approval. There are 42 abortion committees in Israel. Many are located in each of the national hospitals, and the rest operate in smaller clinics (either private or public).[2]

There are five approval criteria for the committee, that are, for the most part, motivated by Jewish law. Judaism holds relatively liberal views with respect to abortion, compared with Islam and Christianity (19% and 2% of the Israeli population, respectively). Jewish law emphasizes the mother's life and health, and part of the mother's body, the fetus does not have its rights before it is born. Based on the Jewish religion, a child born outside of wedlock is considered to be illegitimate and is doomed to bad life outcomes (e.g., cannot get married, according to Jewish tradition), and should therefore be avoided. Therefore, the committee approves the abortion if *at least* one of the following conditions is satisfied: (1) the woman is under 18 or over 40 years of age; (2) the pregnancy is out of marriage; (3) the pregnancy is the result of an illegal act (rape or incest); (4) the pregnancy risks the life or the health of the woman; or (5) the fetus suffers from congenital disorders. These criteria are largely motivated by Jewish law (Amir, 2015).

[1]"Increasing the Jewish birth rate is in a dire need." David Ben-Gurion, Israel's first Prime Minister.
[2]See the full list here.

Table D.1: Eligibility Criteria for Abortions and Subsidies

(a) Abortion Eligibility Criteria and Pre-2014 Subsidies

Eligibility Criteria for Abortion	**Share of Approvals by Criteria**	**Free Pre-2014**
Out of Marriage	50.3%	X
or illegal Act		✓
Risk for Woman	40.6%	✓
or Fetus		✓
Age $<$ 18 or	9%	✓
Age $\geq$ 40		X

Notes: This table shows the eligibility criteria (column 1) for obtaining a legal abortion in Israel and the proportion of applications that are approved by the committee for each criteria (column 2). In the third column, we show the eligibility criterion for a subsidized abortion pre-2014. While "out-of-marriage" and illegal act are both under the same eligibility criteria, only abortions approved due to an illegal act were subsidized prior to 2014.

(b) 2014 Change in Abortion Subsidy (Identification Strategy)

Age	**Free?**	
	Pre-2014	**Post-2014**
Age ≤ 19	✓	✓
$19 <$ Age < 33	X	✓
Age ≥ 33	X	X

Notes: This table highlights the change in eligibility for a fully subsidized abortion following the 2014 policy, which serves as a natural experiment for this paper. Women aged 19 and under were already fully subsidized by the government and therefore unaffected by the change and women age 33 and older were not included in the subsidy expansion and thus never treated. This change in funding applies to women aged 20-32 regardless of what criteria their abortion was approved under, but as can be seen in Table D.1a, of the potential criteria (out-of-marriage pregnancy, a pregnancy that is the result of an illegal act, and a pregnancy in which there is a health risk for woman or fetus) that apply to women aged 20-32, the out-of-marriage criterion is the only one not eligible for a subsidy prior to 2014.

Upon arrival at the committee, the woman fills out the necessary paperwork and pays the committee's fees.[3] Next, she meets the social worker to discuss her decision and assess her eligibility per the criteria. The committee's social workers serve as the effective gatekeepers

[3] The committee fee is 400 NIS (or $155), which was also eliminated by the 2014 policy.

to the approval process, and the committee itself serves as a rubber stamp (Oberman, 2020). Given the criteria for a legal abortion, only one group of women are ineligible: married women between 18 and 40 with healthy pregnancies. In cases in which a woman is ineligible based on the official criteria but desires an abortion, the social worker often helps her navigate the system to meet the criteria. Most commonly, the social worker refers these women to a psychiatrist who can assert that the woman is not adjusting to the pregnancy, which allows her to obtain approval under the criteria for protecting women's health, which includes mental health (Oberman, 2020).[4]

Although the committee process may seem obstructive, essentially all applications are approved. Our data show that 99% of applications were approved and 97% acted upon. The application and committee process is completely confidential for the woman, and neither parental nor partner consent is required. Women past the 24th week of pregnancy (1% of abortions) are referred to a select committee that reviews the request and has stricter standards for approvals (though approval rates are as high as the standard committee), which we exclude from the analysis. Oberman (2020) attributes the high approval rates to the social workers who direct women who would otherwise not be approved to a psychiatrist for sign-off under the women's health criteria. An alternative explanation for the high approval rate is that women likely to be denied will travel to neighboring countries for an abortion (i.e. "abortion tourism") – but given the Israeli geopolitical context, traveling to neighboring countries is impossible for the Jewish population. Moreover, abortion laws in those countries are more restrictive than in Israel. Therefore, we are not concerned about the possibility of "abortion tourism" in our setting.

To prevent cost from being a barrier to abortion access the Israeli government passed several policies in recent decades. This subsidy has been expanded several times: first in 2001 to include women up to age 18, then in 2008 to include women up to age 19. Thus, for women whose abortion was approved by the committee for any of the eligible criteria, she would not have to pay if she was 19 or younger.

D.2 Abortion and Contraceptive Use Norms and Prevalence

Abortion is not uncommon in Israel, despite the existence of the committee, as shown in Figure D.1. The share of legal abortions of all pregnancies has remained relatively constant between 2002 and 2016, averaging approximately 8% of pregnancies each year and 10% overall. While this may sound high, Israel's legal abortion ratio (share of pregnancies that end in abortion) is actually relatively low compared with global rates and other high-income countries (see

[4]Alternatively, some anecdotal evidence suggests that women can report taking certain medications before getting pregnant, which puts the fetus at risk.

Figure D.2). Twenty-five percent of pregnancies are aborted worldwide; in Europe the rate is 26% and in North America 16% (Guttmacher, 2018).

Abortion is not a politically charged topic in the Israeli parliament (*Knesset*) relative to other settings, such as the United States, and is considered to be a "silenced phenomena" (Amir, 2015). While liberal parties oppose the existence of the abortion committee, they know that opening the topic for discussion might result in more restrictive abortion laws (Oberman, 2020; Rimaltt, 2017). On two occasions a bill was introduced that challenged the system, but did not pass.[5] On the other side of the debate, religious parties (both Orthodox and Arab parties) tried twice to challenge the status quo of the current abortion law but could not gather the necessary political support.[6]

To illustrate the difference in abortion discussions in the public sphere between Israel and the U.S. and the salience of the policy, we conducted a Google trends analysis that suggests the policy took time to emerge in the public discussion – and even when it did, it was much less salient compared with other abortion discussions in the U.S. Figure D.3 presents Google searches for the word "abortion" in the U.S. compared with its Hebrew equivalent (*hapala*) in Israel from 2009 to 2019 (normalizing the base levels of both countries in January 2009). We can see that the peak in Israel across time is indeed in 2014, but only a few months into the year (although the policy was already in effect in January). Given the intensity of the American abortion discussion, one might imagine that the extensive coverage will create an out of the ordinary discussion. However, we can see that the surge in searches on the word "abortion" responds much more aggressively in the U.S., even without a change in the law, as when President Trump was elected, or when Brett Kavanaugh was nominated to the Supreme Court.

With respect to cultural views about abortion, Israel is an interesting setting to study the effects of abortion access due to the vast heterogeneity, ranging from: secular Jews, religious and ultra-Orthodox Jews, and Christian and Muslim Israeli-Arabs.[7] Figure 4b presents the wide heterogeneity in baseline abortion ratios, which might suggest different latent costs of abortion (or differing abortion views) across groups. Understanding these heterogeneous views is

[5]On November 29 2004, Reshef Hen ("Shinoi" party) submitted a legislative application ao add an approval based on SES status. In 2006 Zehava Galon ("Meretz" party) proposed reconsidering the committee practice altogether. Both bills did not pass.

[6]On 2008, Nissim Zeev ("Shas" party) proposed making late-term abortions illegal, but the bill did not pass. In 2013 the two Chief Rabbis of Israel issued a letter in support of Efrat, an anti-abortion group that was established in the 1960s. In January 2017 Yehudah Glick (Likud party) and Abd al-Hakim Hajj Yahya (Joint List party) called a Knesset Committee on the Status of Women and Gender Equality meeting to propose incorporating a religious representative in the abortion committee, but the law failed to pass. The argument was that a religious entity in the committee would discourage women (especially in the Arab population) from applying, fearing that information would leak to their communities.

[7]Israel is composed of 75% Jews, 18.6% Arab-Muslims, 2% Arab-Christians and 4.4% affiliated with other religious groups (or non-affiliated).

critical for understanding our results and our proposed mechanism regarding young women's autonomy. As discussed above, Judaism holds relatively liberal views with respect to abortions and place a supreme value on the mother's life and health; it accepts abortions in two broad cases: a threat to the woman's life and if the fetus will be born into an "unstable life".[8] Nevertheless, Israel's (Jewish) "demographic project" strives to limit abortions among the Jewish population. The Jewish population consists of a wide mixture of religiosity levels, ranging from secular Jews (45%), traditional Jews (25%), religious Jews (16%) and Orthodox Jews (14%) (Central Bureau of Statistics (Israel), 2018).

Broadly speaking, religiosity level is highly correlated with marriage age, fertility levels, contraceptive use, and opposition to abortion. The secular Jewish population generally supports abortion, has relatively high contraceptive use rates (Figure D.4), and has relatively low fertility rates, whereas at the other end of the religiosity spectrum, Orthodox and Ultra-Orthodox populations are opposed to abortion, have low contraceptive use rates (Figure D.4), and very high fertility rates. The Jewish religious populations also tend to marry and have children at a very young age (late teens to early 20s). For example, among 18-21 year-olds, 79% of the women who conceived are married. The abortion ratio (out of pregnancies) among unmarried women aged 18-21 is 67%, while it is essentially 0% for the married population in this age group. Thus it is safe to assume that most pregnancies among the married population in this age group are planned; while the converse is true among the unmarried populations.

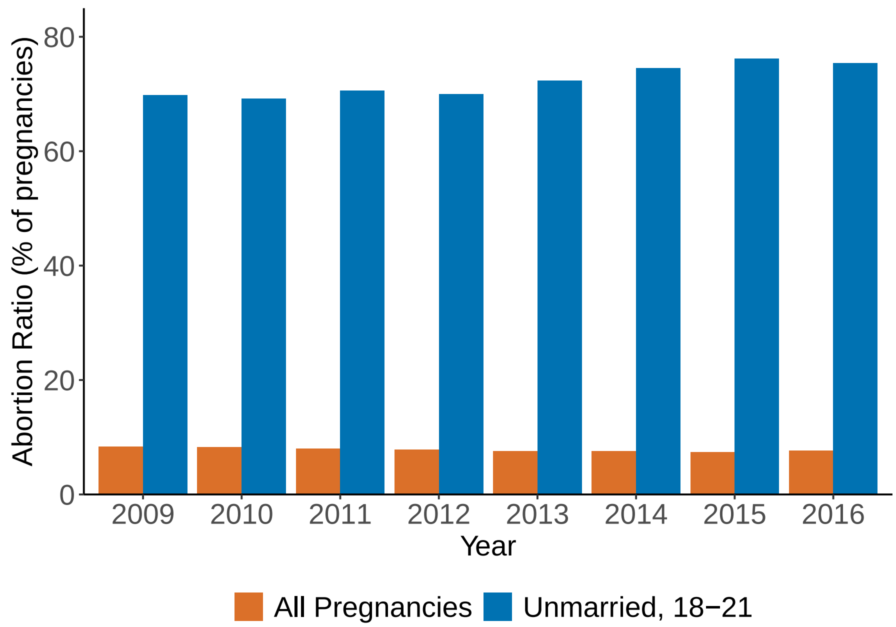
The Israeli-Arab population is mostly religious and considers abortion highly taboo. The Muslim population consists of 11% secular, 57% traditional, and 31% religious Muslims (Central Bureau of Statistics (Israel), 2018). In general, Islam opposes abortions other than in the case of a health risk to the child. Given the opposition to abortion, there may be a greater incentive for women in the Arab-Muslim community in Israel to turn to the illegal market or even self-induce abortion. The extent of self-induced and illegal abortions is difficult to estimate, but a study of the Palestinian population may help contextualize the frequency with which this occurs among the Arab-Muslim population in Israel.[9] A 2006 survey conducted by Bethlehem University found that 10% of Palestinian women self-induced abortions, and a quarter of the women stated it was necessary for unmarried women in order to prevent honor killings (Foster et al., 2007).[10]

[8]There is no strict definition of an "unstable life", but the characteristics of an unstable life may include cases such as unmarried parents, an extremely old or young mother, or being born with a congenital disorder.

[9]The Israeli-Arab community commonly identifies with the Palestinian population (Tamar-Sheperman, 2008).

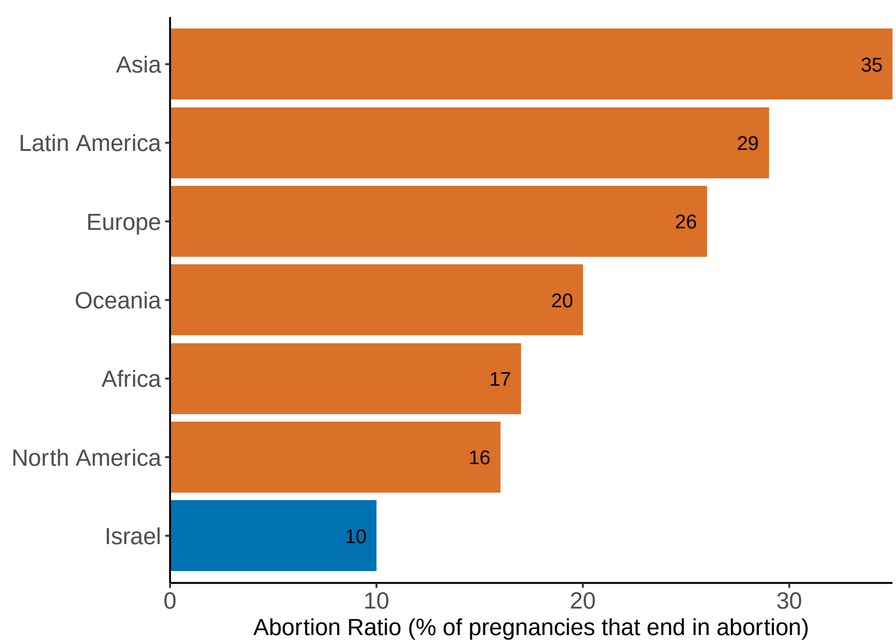
[10]The practice of killing women by other family members when the woman has "brought dishonor" to the family; for example, by having an abortion or having premarital or extramarital sex.

Figure D.1: Abortion in Israel over Time



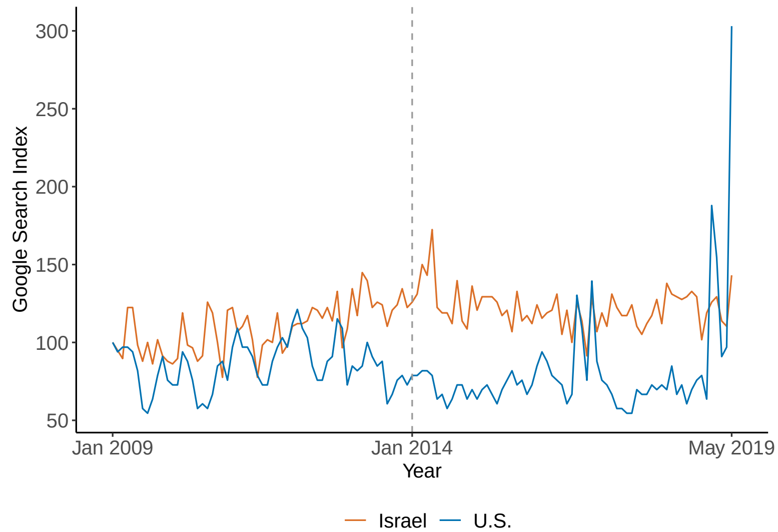
Notes: This figure presents the abortion ratio (share of abortions per pregnancies) in Israel per year for each year between 2009 and 2016. Bars in orange present the rates for the entire population of pregnant women, and bars in blue restrict to our population of interest: unmarried 18-21 year olds.

Figure D.2: Abortion Ratios Worldwide



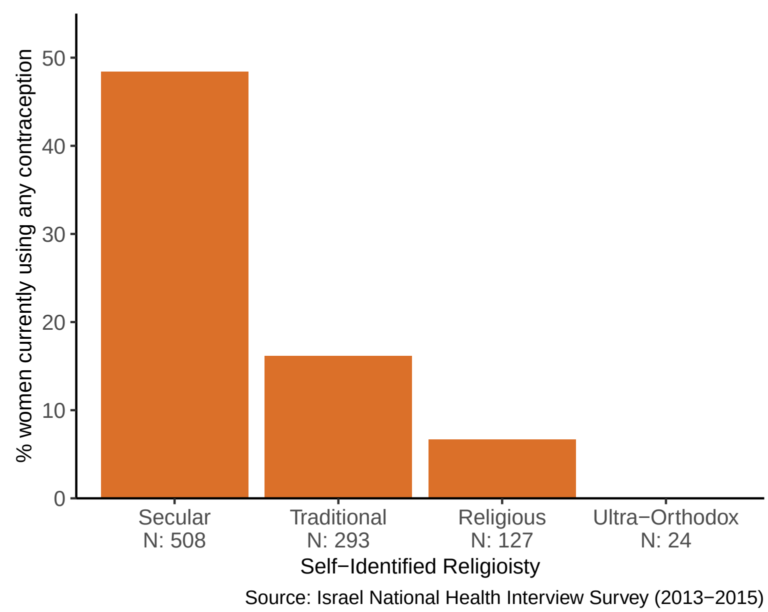
Notes: This figure presents the abortion ratio (share of abortions per pregnancies) across regions of the world and in Israel. Global data come from the Guttmacher Institute (https://data.guttmacher.org/) and Israeli data are from the Central Bureau of Statistics and are used in the primary analysis.

Figure D.3: Google Search for the word "Abortion" (Israel and U.S.)



Notes: This figure presents Google searches for the word "abortion" in the United States compared with its Hebrew equivalent ("hapala") in Israel from 2009 to 2019 (normalizing base levels of both countries in January 2009).

Figure D.4: Self-reported Contraceptive Use by Religiosity



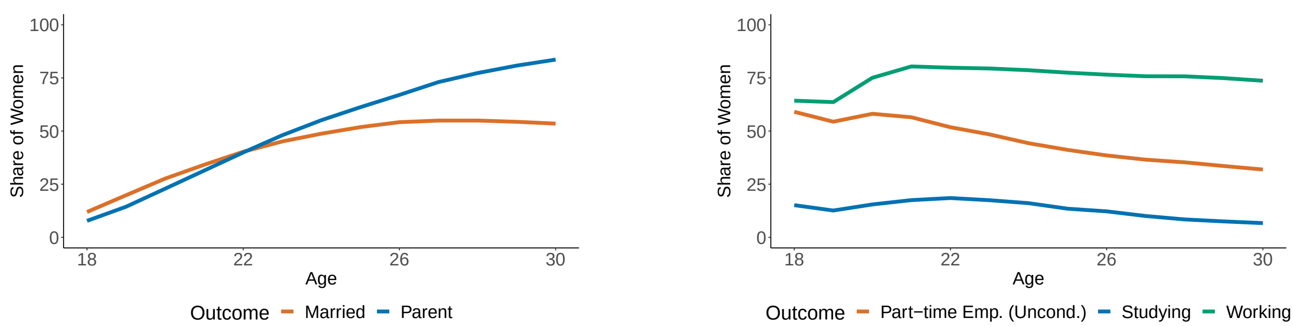
Notes: This figure presents self-reported contraceptive use by self-reported religiosity, collected by the Israel National Health Interview Survey, 2013-2015 (Einav et al., 2017). The data include Jewish and Muslim women who self-identified their religiosity level. The total number of women surveyed in each group is reported. Thus, these categories do not perfectly align with the religiosity level for Jewish women we constructed for our analysis. In this survey, no Ultra-Orthodox women reported currently using a method of contraception.

D.3 Childrearing Cost

The cost of childrearing in Israel is substantially lower than in the United States. First, both education and healthcare are free in Israel.[11] Second, as part of the country's demographic agenda, there are several income transfers tools: birth transfers ($145 - $484 for birth), tax breaks ($118 a month per child per working parent) and social security transfers ($41-$52 a month per child). Finally, one should consider the opportunity cost of having a child - the woman's displacement out of the labor force. By the Israeli law, the government covers three months of paid maternity-leave with an option to extend three months unpaid, during which employers cannot fire the parent (only one of the parents can take the leave, though it is commonly the mother). In some cases the parent may ask for an unpaid extension of the maternity leave, but the employer is no longer obligated by law to do so.

One important feature of Israel – it's size – allows a smoother return to the labor force due to the support of family members before the child enters the education system (typically at one year old). These patterns are amplified among the religious population where women enter family life early, raise the children and work simultaneously (see Figure D.5).

Figure D.5: Life-cycle decisions of religious women



(a) Family life (b) Labor market and education

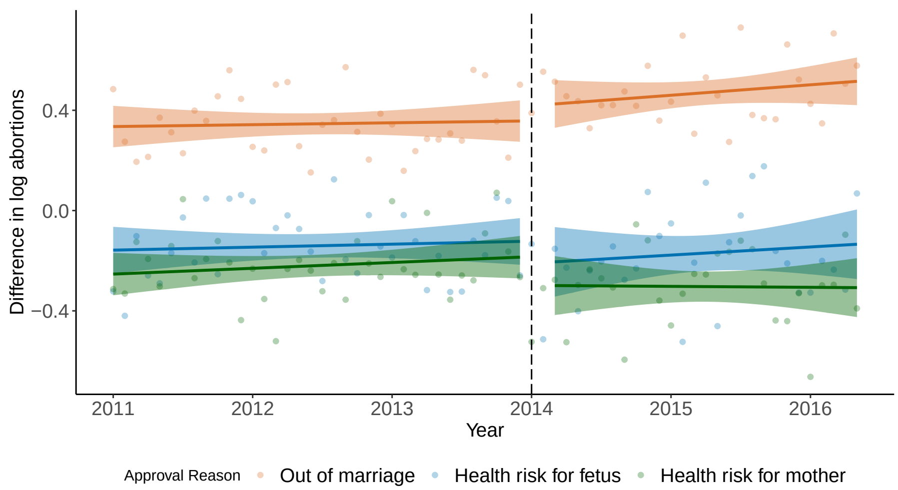
Notes: This figure presents the timing of four big life decision across the life-cycle: marriage, parenthood, employment, and higher education, of religious women in Israel.

[11]Healthcare coverage per child is merely $3 per month, and Pre-K is free for children three years of age and older. Free options are available below the age of three, yet even the paid options are less than the minimum full-time monthly earnings.

E Sample Selection

Unmarried women: We restrict our analysis to unmarried women for two reasons: (1) all unmarried women are automatically approved by the committee for an abortion and (2) the structure of the 2014 policy change. First, pregnancies that occur out-of-marriage are automatically approved for legal abortion by the committee (see Table D.1a). While married women can get around the committee criteria (see Appendix D.1), this practice introduces selection bias. Thus, the only way to ensure comparability between the women who had abortions and those who gave birth is to restrict the sample to all unmarried women, in which marital status is identified at the month of conception. Second, given the prior criteria for government funding of abortion, the only population for whom the funding coverage changed in 2014 are women with an out-of-marriage pregnancy, which further motivates the restriction to unmarried women (see Table D.1a and Figure E.1). Notably, abortion is rare among married women in Israel: 71.5% of pregnancies among young, unmarried women while aborted and 0.75% of pregnancies are aborted among married women.[12]

Figure E.1: Abortions by Aproval Reasoning Across Time



Notes: This figure plots the monthly-level first difference across treatment (20-21 years old) and control groups (18-19 years old) in log abortions by approval reasoning (see Table D.1a).

Young women: We focus on the younger age cutoff for the 2014 funding expansion (19 years old)[13] and restrict our analysis to the population of unmarried women who are *18 to*

[12]While this may sound high, it is important to remember that abortion tends to be higher among young women. In our data, among all 18- to 21-year-olds (married and unmarried) 14.5% of pregnancies are terminated, which is about half the number for women under the age of 20 in the United States, which was 29% in 2013 (Kost et al., 2017). For further comparison, 10% of all pregnancies in Israel are terminated, which is relatively low compared with global rates (see Figure D.2). Twenty-five percent of pregnancies are aborted worldwide, while in Europe the share is 26% and in North America 16% (Guttmacher, 2018).

[13]Recall that by expanding eligibility for funding coverage in 2014 to include women up to the age of 32, the

21 years old for both conceptual and empirical reasons. First, motivated by the autonomy model,we focus on younger women, since they are more likely to need to seek help for funding, constraining their autonomy. Second, from an empirical point of view, we focus on a small bandwidth around the age cutoff for higher statistical power and bias minimization. On the one hand, we gain power by focusing on the age group most affected by the policy, but we lose power due to the smaller sample size. While we could extend the sample to include older women, thus increasing our sample size, the further we go from the cutoff, the greater the bias introduced to our estimates (Appendix Section F discusses the parallel trends in more detail and presents various forms of evidence for each of these samples).Another potential concern with this age restriction is that the control group is 18-19 years old and in Israel 55% of women serve in the military in that age (Sade, 2023), while women in our treated group (20-21 years old) do not.[14] Military service may pose a threat to our identification if it affects women's fertility decisions. Age-based differences, such as military service, are precisely why we take two differences and are addressed by our difference-in-differences econometric strategy.[15][16]

Time period: we restrict the sample to conceptions between 2009 and 2016. We chose 2009 as the starting year because, before 2009, 19-year-olds were not universally funded. In 2009, the Israeli government expanded the abortion subsidy to include all women up to the age of 19 (previously, only up to the age of 18 was covered).[17] Therefore, starting the sample period before 2009 could contaminate the treatment since we cannot identify who serves in the military in our data. To avoid contaminating the treatment, we restrict the sample to conceptions from January 2009 onward, at which point the government already covered all 19-year-olds, regardless of their status in the military.[18] Finally, we restrict our

policy introduced a cutoff at age 19 and 32. See Table D.1a.

[14]In practice, some women may end up serving in the military for a couple of months after their 20th birthday, which could potentially contaminate our treatment. To account for that we run a robustness analysis in which we drop women aged 20 years old and include women aged 21-22 as the treated group. We find very similar results (Figure F.4).

[15]Two additional facts regarding military service in Israel may help to alleviate concerns. First, most Israeli soldiers are stationed in "open-bases," meaning their service allows them to return home every day like a standard job. Women who serve in "closed-bases" are still based in Israel and can return home on weekends. Second, only 20% of religious Jewish women serve in the military. This increases our confidence in our results because religious Jewish women are the main population that drives our results (as we show in Section 4.3).

[16]Finally, we note that it was not possible to obtain direct data on military service. However, we ran a simulation in which we assumed the true treatment effect is the same across groups and checked how long after turning 20 these women would have needed to be released in order to explain the heterogeneity. The difference in the effects would require that women be discharged more than a year after they turn 20, which is not possible in the IDF (unless they are all officers, which is impossible. Therefore, this does not present a problem with the interpretation of our findings.

[17]We separately test for an effect of the 2009 change in funding coverage for 19-year-olds and find that the policy had a negligible and insignificant effect on abortion. It is important to note that 19-year-olds are still serving in the military at this age and the military covers the cost of all medical procedures, including abortion, thus making the 2009 policy change redundant.

[18]Alternatively, we could include earlier years and use a staggered difference-in-difference in which the treatment status of 19-year-olds changes over time. This robustness test produced results very similar to our main

analysis to conceptions up until March 2016 for two reasons. First, the latest live births we observe occurred in December 2016, and thus we observe conceptions only until March 2016. Second, in March 2016, Israel expanded the permitted use of medication abortion, which could complicate the interpretation of our findings (Gal, 2016).

Ultimately, after restricting our sample to unmarried women aged 18-21, our sample is composed of 24,564 pregnancies across 20,621 women (Table A.1).

effect. Thus, we chose to start from 2009 due to the confusing nature of the military coverage, which renders the interpretation of the staggered difference-in-differences results more complex.

F Parallel Trends

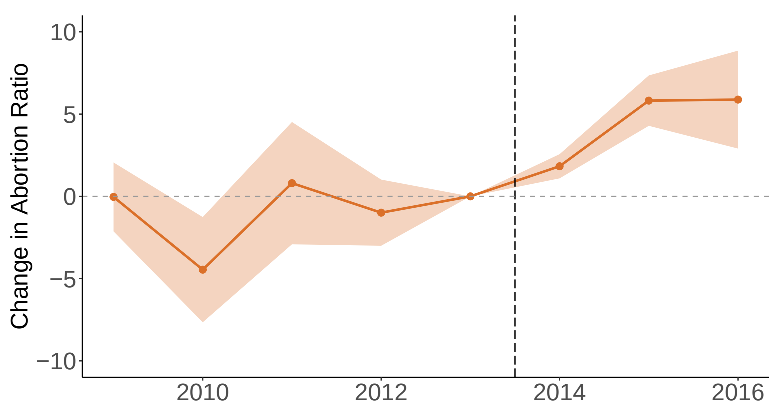
Our difference-in-differences approach requires that women who are eligible for the subsidy would have experienced similar changes in abortion over time as ineligible women in the absence of the 2014 subsidy. In this section, we present several pieces of evidence to support the plausibility of parallel trends for the population of interest (unmarried 18-21 year olds). We begin by testing the robustness of our results while allowing for differential time-trends across age groups. We then investigate the sensitivity of our parallel trends to two population of interest: exclusion of women in military service age, and the sub-population that is driving the results – religious and low-SES households. We show the parallel trends assumption still holds in both cases. Finally, in order to justify our choice of age groups discussed in Appendix E, we provide parallel trends analysis for other age groups, showing the parallel trends assumption fails for those groups.

F.1 Differential time-trends

As a standard approach to testing for parallel trends, we interact the treatment status (T_i) with a dummy for each year in our sample (for years $k \in \{2009, 2016\}$) using the following equation:

$$abort_{it} = \sum_{k=2009}^{2016} \delta_k \times \mathbb{1}\{t = k\} \cdot T_i + \gamma_{a_i} + \gamma_{y_t} + \epsilon_{it} \ . \qquad (1)$$

Figure F.1: Generalized Difference-in-differences

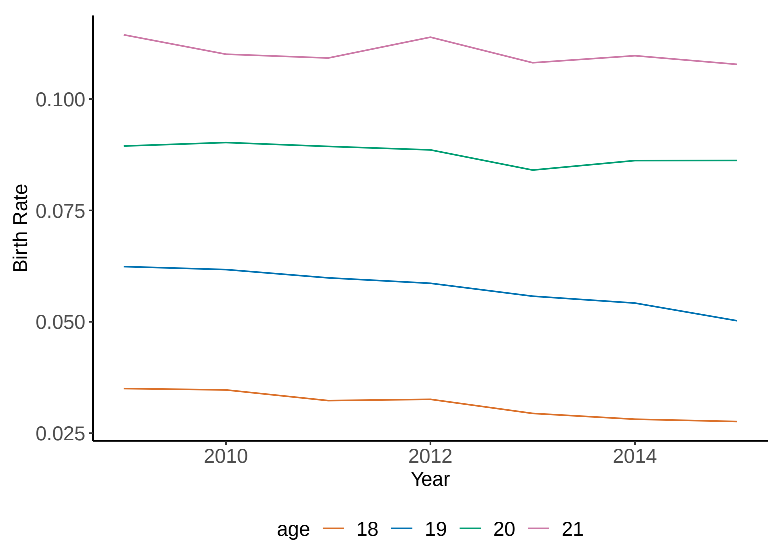


Notes: This figure presents the difference in the probability of abortion between treated (aged 20-21) and control (aged 18-19) women over time (2009-2016). The dashed line indicates the timing of the 2014 policy change. Each dot represents the coefficient δ_k estimated from the generalized DiD (Equation 1). Note that 2013 is dropped as the reference year. Shaded regions mark 95% confidence interval around the point estimates. The sample includes all unmarried women in the country aged 18-21 who conceived from 2009 to 2016.

Figure F.1 plots the estimates of δ_k from Equation 1. The estimates represent the difference in the probability of abortion between treated (aged 20-21) and untreated (aged 18-19) women over time (2009-2016), with the 2013 difference dropped as the reference year. The shaded regions mark the 95% confidence intervals around the point estimate, respectively. We see no statistical difference in the probability of abortion between treated and control women before the policy change (which supports the parallel trends assumption); after 2014, abortion among treated women increased.

One might be concerned that Figure F.1 presents some differential pre-trends. Therefore, we break down the parallel trends to birth-rates (out of women in the same birth cohort) by age (see Figure F.2). We can see all age groups show a downward trend, although these trends are somewhat starker for the18,19 years old women. Further exploration of this trend reveals it is driven by differential fertility rates during the mid 90's in Israel, due to the mass-migration from the USSR (Shifris and Okun, 2024). In other words, these population growth trends affects the denominator of the birth-rate trends, which in turn affects the denominator of the abortion ratio and can explain the differential trends we see in Figure F.1.

Figure F.2: Age-specific fertility trends



Notes: This figure presents the age specific birth-rate out of women in the same birth cohort over time (2009-2015).

To address the potential risk to identification whereby women aged 18-19 were on a different time trend than women aged 20-21, we run specifications in which we first residualize the abortion outcome on separate pre-trends for the control and treated groups (Equations 2 and 3) and then run the standard DiD on the residualized abortion (Equation 4):[19]

[19]Since there is no straightforward way to calculate standard errors in this case, we calculate them using 1,000 bootstrapped replications.

$$abort_{it}^{Pre} = \beta_{Pre}^{T} \times T_i \times t + \nu_{it} \quad (2)$$

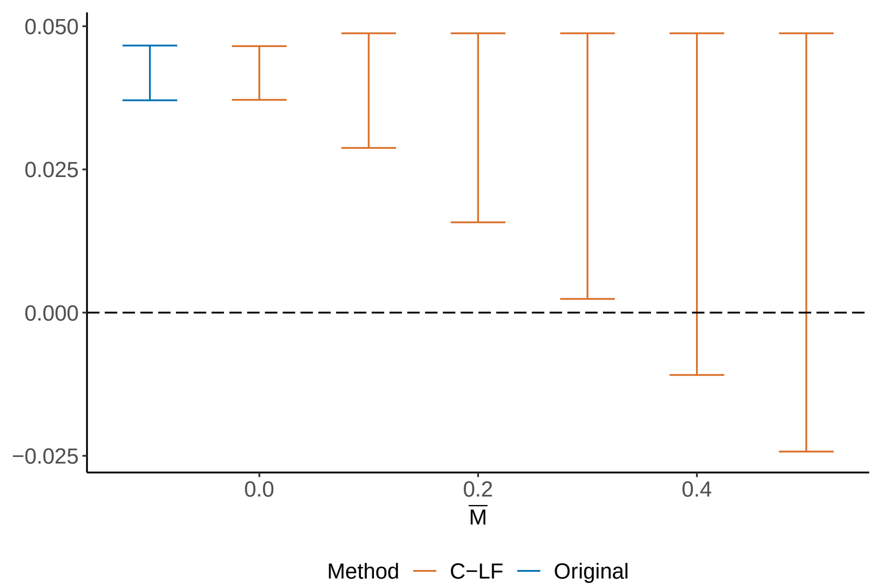
$$\tilde{abort}_{it} \equiv abort_{it} - \widehat{\beta_{Pre}^{T}} \times T_i \times t \quad (3)$$

$$\text{Resid. Pre-trends: } \tilde{abort}_{it} = \delta \cdot Post_t \times T_i + \gamma_{a_i} + \gamma_{y_t} + \gamma_{m_t} + X'\gamma_i + \epsilon_{it} \ . \quad (4)$$

We present the results of this linear-time trend specification (LTT) in Table 1 and a graphical version of this approach in Figure 3 (see Figure F.6 for the equivalent exercise for all age groups). Both the formal test in Table 1 and the graphical illustration show the effect of the treated group goes beyond the differential time-trends, even if somewhat attenuated from 4.6 to 3 percentage points.

Finally, to address any further concerns regarding the two groups being on differential trends, we implement the "Honest DiD" approach (Rambachan and Roth, 2020). We find that our results are robust to allowing for violations of parallel trends up to 40% of the max possible violation in the pre-treatment period (see Figure F.3).

Figure F.3: Sensitivity Analysis for Average Effect: "Honest DiD" (Rambachan and Roth, 2020)



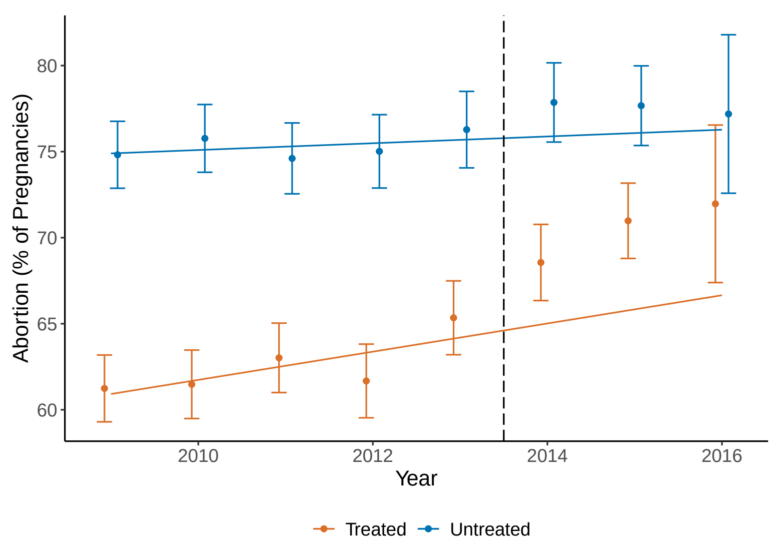
Notes: This figure presents the sensitivity analysis for the average effects following the "Honest DiD" approach of Rambachan and Roth (2020), implemented to the estimation of Equation 1 presented in Figure F.1. The meaning of the "breakdown value" ($\bar{M}$) is that a significant result is robust to allowing for violations of parallel trends up to $\bar{M}$ as large as the max violation in the pre-treatment period.

F.2 Sensitivity for sub-population

Importance of military service

An additional identification concern is related to military service, the military fully covers all medical procedures, including abortion. While Israeli women's military service ends at age 20, some women end up serving for a few months past their 20th birthday (and we cannot directly observe when individuals in our sample completed their military service). Although this is likely a rare occurrence, it would contaminate the treatment group. To address this concern, we assess the plausibility of dropping all 20-year-olds from the sample and using 21-22 year olds as the treated group (instead of 20-21 year olds) to determine whether it is reasonable to estimate specifications that exclude all 20 year olds. We present this version of the parallel trends in Figure F.4. As we can see, the results of this test are equivalent, if not stronger, than our main results in Figure 3.

Figure F.4: Parallel Trends: Excluding 20-Year-Olds

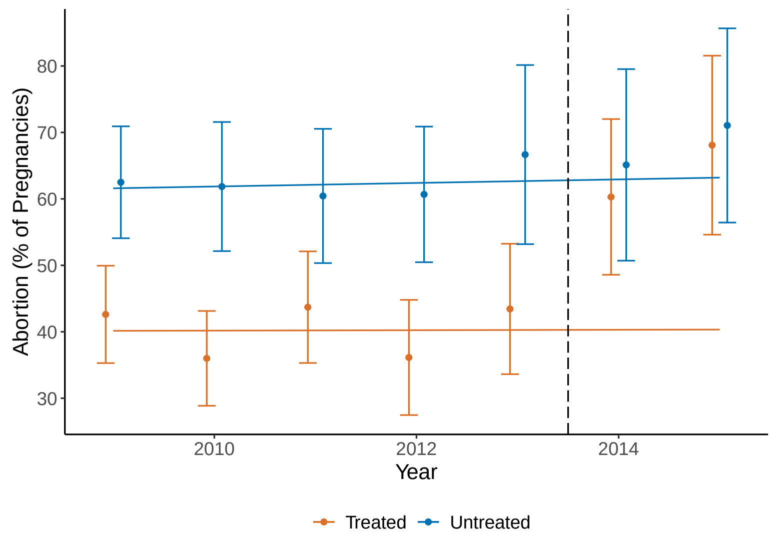


Notes: This figure presents abortion ratios for the treated and control groups over time (2009-2016) for 18-19 year olds compared with 21-22 year olds (excluding 20-year-olds to account for women finishing their military service at different points in time). In this population, the treated group includes women aged 21-22 and the control group includes women aged 18-19. The dashed line indicates the timing of the 2014 policy change. Each dot represents the mean abortion ratio in a given month-year for the eligible and ineligible groups of women, respectively. Linear lines are fitted separately before and after the policy change for each group. The ineligible population (control) is presented in blue and the eligible population (treated) in orange.

Religious and low-SES households

As we demonstrate in Section 4.3, the increase in abortion is driven by the population of women from low-income, religious households. Therefore, it is important to assess whether parallel trends also holds for this specific subgroup as well, as we can see in Figure F.5 below.

Figure F.5: Parallel Trends: Religious and Low-SES



Notes: This figure presents the abortion ratios (% of pregnancies that end in abortion) for treated and control groups over time (2009 to 2016) for the sub-population of religious and low-SES women. In this sub-population, the treated group includes women aged 20-21 and the control group includes women aged 18-19. The dashed line indicates the timing of the 2014 policy change. Each dot represents the mean abortion ratio in a given year for the eligible and ineligible groups of women, respectively. Linear lines are fitted separately before and after the policy change for each group. The ineligible population (control) is presented in blue and the eligible population (treated) in orange.

F.3 Alternative age groups

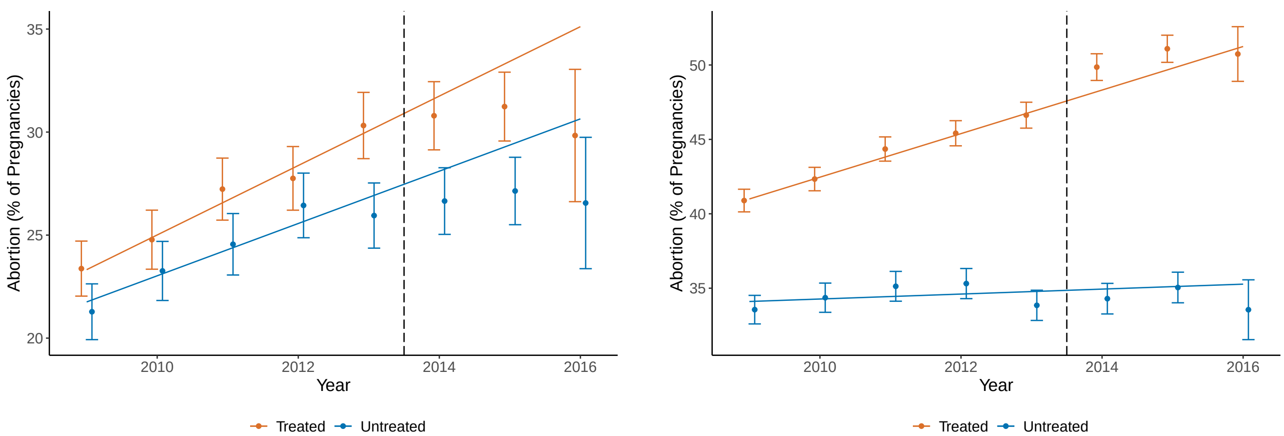
For the sake of completeness, we provide comparable plots for two other populations: unmarried 30-35 year olds, in which the 33 year age cutoff was used to determine treatment, and unmarried women aged 16-40 with both age cutoffs (19 years old and 33 years old) used to define treatment.

Figure F.6 presents comparable versions of Figure 3 for two alternative age groups: unmarried 30-35 year olds and the entire sample of unmarried 18-40 year olds. Figure 3 shows parallel pre-trends for the treated and untreated groups and a clear increase in abortion relative to the counterfactual pre-trend for the newly eligible 20-21 year olds after the policy was implemented. In contrast, Figure F.6a presents the comparable parallel trends test for the 30-35 year old sample. For this age group, the trends are not parallel, since abortion for eligible 30-32 year olds increased more over time than that of ineligible 33-35 year olds. Furthermore, there does not appear to be much of a treatment effect among the eligible population after 2014.

Figure F.6b presents the comparable parallel trends for the 18-40 year old sample, in which women affected by the policy change (ages 20-32) are considered treated, and unaffected women (ages 18-19 and 33-40) are considered untreated. The trends are clearly not parallel: Abortion for the treated group increased over time, while the abortion trend among the ineligible group is essentially flat. Given the vast number of ages we include (18-40), it is reasonable that trends in abortion would be very different. Nonetheless this is also a clear violation of the parallel trends assumption.

Figure F.6: Parallel Trends Assessment By Age Group

(a) 30-35 Year Olds (b) 18-40 Year Olds



Notes: This figure presents the difference in abortion ratios (% of pregnancies that end in abortion) between treated and control groups over time (2009-2016) for three age groups. In panel (a), we present the parallel trends for unmarried 30-35 year olds, where the treated group is women aged 30-32 and the control group is women aged 33-35. In Panel (b), we present the parallel trends for all unmarried 18-40 year olds, where the treated group is women aged 20-32 and the control group is women aged 18-19 and 33-40. In both panels, the dashed line indicates the timing of the 2014 policy change. Each dot represents the mean abortion ratio in a given month-year for the eligible and ineligible groups, respectively. Linear lines are fitted separately before and after the policy change for each group. The ineligible population (control) is presented in blue and the eligible population (treated) in orange.

G Effect of Abortion Funding on Human Capital Investment and Labor Supply

Using the sharp change in abortion access induced by the 2014 policy as an instrument for avoiding early parenthood, we examine the implications of the abortion funding policy for human capital investment and labor market outcomes. In Section 5 we show that among women affected by the funding change, avoiding an early birth results in a decrease in the probability of parenthood and marriage. Consistent with the model's predictions, this delay in early parenthood and family life allows women to enroll in college and shift toward more flexible, part-time work arrangements.

Given our focus on young women we begin by focusing on the human capital investment decision, since this is a critical time for college decisions. To explore this margin, we estimate Equation 2 on college enrollment (see Table 2). Our reduced form specification finds a 1.3-percentage-point increase in the probability of university enrollment (relative to a baseline of 5.4%).[20] This result, coupled with the delay in parenthood and marriage, is consistent with Goldin et al. (2006), who argue that the reversal of the gender gap in college graduation was driven by increases in young women's expected economic returns to college due to perceived labor market opportunities and an increase in the age at first marriage.

Next, we test whether the introduction of the abortion funding policy affected female labor force participation. To test how a change in abortion decision-making autonomy impacts women's labor supply we rely on data from the tax registries. We use tax data composed of a monthly panel of labor market employment, earnings, and sector identifiers from 2005 to 2018 to construct several outcomes related to labor force participation. Yearly earnings are defined as the sum of earnings across all firms a woman worked for and earnings from self-employment in a given calendar year, where we use 2011 as the baseline year for our inflation correction. Following Abowd et al. (1999), we estimate sector-level wage premiums by running a log-wage regression on individual and firm fixed effects and averaging the wage premiums of all firms within a given sector. On the extensive margin, we create several variables: self-employment and employment in a firm are directly reported in the tax records. We classify a woman as in the labor force ("working") if she is either self-employed or hired by a specific firm in a given year. We also construct a proxy for part-time employment, in which part-time employment is defined as earning below the 2011 minimum full-time monthly earnings defined by law (3,890 NIS/month or USD $1,090/month).

If daughters are now splitting their time between studying and work we should expect to

[20]While 5.4% might sound surprisingly low, this is due to the delayed timing of college enrollment in Israel due to military service. Across the entire population, only 26% of women in Israel have graduated from college. Furthermore, the religious population has lower rates of college completion.

see an increase in labor-supply. However, we find a 5.8-percentage-point decrease in employment (including part-time, full-time, and self-employment) in the short to medium term. Why would labor force participation be reduced among women who delayed parenthood relative to their counterfactual outcome of having a child? To understand what might explain this result, it is important to understand the context and expectations of women in Israel. According to the International Social Survey Programme (ISSP), 80% of Israelis believe “a women with children under school age should work outside the home”; this is the highest share in the OECD (Kleven et al., 2019).

Additionally, religious Jewish women, especially in the ultra-Orthodox community, are the primary household earners because men are expected to devote themselves to studying the Torah. At the same time, the Orthodox community is also very patriarchal and the burden of child-rearing falls on women but is commonly shared between all the women in the family (Lidman, 2016). Thus, these women are expected to work outside the home and also raise children. This reality is reflected in our data: 77.7% of religious women from low-SES are working during the year of conception (Table G.1). Therefore, avoiding the need to provide for a newborn child as a young, unmarried, religious Jewish woman in Israel could result in a decrease in employment.

Looking across types of labor force participation allows us to add more nuance to this finding as well. While we see a reduction in overall labor force participation, we see a 5.5 percentage point increase in part-time work relative to full-time work. These findings are consistent with substitution toward human capital investment: The counterfactual women who could not have had the abortion before the policy, gave birth and worked full-time; when abortion is provided for free, they are more likely to invest in their human capital by enrolling in college, but shift to part-time work and self-employment because of the flexibility this affords. The importance of flexible employment arrangements has been cited as a key factor in closing the gender wage gap (Goldin, 2014; Bang, 2021; Goldin and Katz, 2016), and our findings point to how the combination of abortion access and flexible work arrangements may allow women to invest more in human capital.

Finally, we ask whether the human capital investment translates into higher wages. However, since we don’t have wage data we study instead whether they are employed in better-paying jobs. To answer this, we estimate Equation 2 on the sector-level wage premium. Following Abowd et al. (1999), we estimate the sector-level wage-premiums by running a logwage regression on individual and sector fixed effects. The results in Table G.1 suggest an increase of 0.015 log-points (50% increase relative to a baseline of 0.03 log-points) in the wage premium of the sector in which these women work.

Table G.1: Reduced Form Effect on Human Capital Accumulation & Labor Market Outcomes

	18-21 Year Olds			Low-SES & Religious		
	Coef	Mean	N	Coef	Mean	N
BA Enrollment	0.001	5.7%	24,650	0.013	5.4%	1,790
	(0.002)			(0.004)		
Working	-0.011	75.8%	24,650	-0.052	77.7%	1,790
	(0.008)			(0.022)		
Employed by a firm	-0.006	74.5%	24,650	-0.058	76.3%	1,790
	(0.006)			(0.024)		
Employed part-time	0.002	72.8%	24,650	0.055	77.4%	1,790
	(0.008)			(0.028)		
Self-employed	-0.005	1.2%	24,650	0.006	1.4%	1,790
	(0.002)			(0.003)		
Earnings (NIS, Cond.)	-176.258	26,865	22,340	-2810.076	26,865	1,688
	(355)			(1443.5)		
Sector's Wage Premium	0.003	0.032	22,340	0.015	0.03	1,688
	(0.001)			(0.001)		

Notes: This table presents results for the effect of the 2014 policy on a range of human capital formation, and labor market outcomes (Equation 2). Columns 1-3 presents the results for the entire sample of unmarried 18-21-year-olds who conceived. Columns 1-3 further restrict the sample to women from low-SES and religious families. The means are calculated using the pre-policy data. Standard errors clustered by age at conception in parentheses. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

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