Online Appendix

Gender Gaps in Political Attitudes in Latin America

This appendix presents supplementary figures. Section A1 shows ideology and attitude levels split by education and birth cohort. Section A2 replicates the main level figures with survey year on the x-axis. Section A3 presents gender and education gaps by survey wave and by birth cohort (including the social-attitude cohort gaps from the main text discussion). Section A4 shows by-country cohort plots for each outcome. Section A5 adds robustness checks using a stricter tertiary threshold, rake weights, and leave-one-country-out pooling. Separate appendix sections then document the MRP and APC procedures. All figures follow the same conventions as the main text: blue solid lines represent men; red dashed lines represent women; shaded ribbons are 95 % confidence intervals.

Data. All figures use the LAPOP AmericasBarometer (2006–2023), pooling Argentina, Brazil, Chile, Colombia, Mexico, and Uruguay. The 2021 wave is excluded (key attitude questions absent). The pooled analysis sample contains 71,228 observations, with smaller outcome-specific samples for conditional ideology items and questions fielded in fewer rounds. Birth cohort is computed as survey year minus respondent age. College-educated respondents are those with at least one year of any higher education institution—including universities, technical institutes, and other tertiary programs—i.e., 13 or more years of education. This broad definition is adopted to preserve adequate cell sizes across cohorts and countries.

Contents

A1 Education Split: Levels by Birth Cohort

X-axis = birth cohort group (Pre-1950, 1950–64, 1965–79, 1980–94, 1995+), pooling all survey waves. Top panels = college-educated respondents; bottom panels = non-college.

A1.1 Ideology and Political Interest

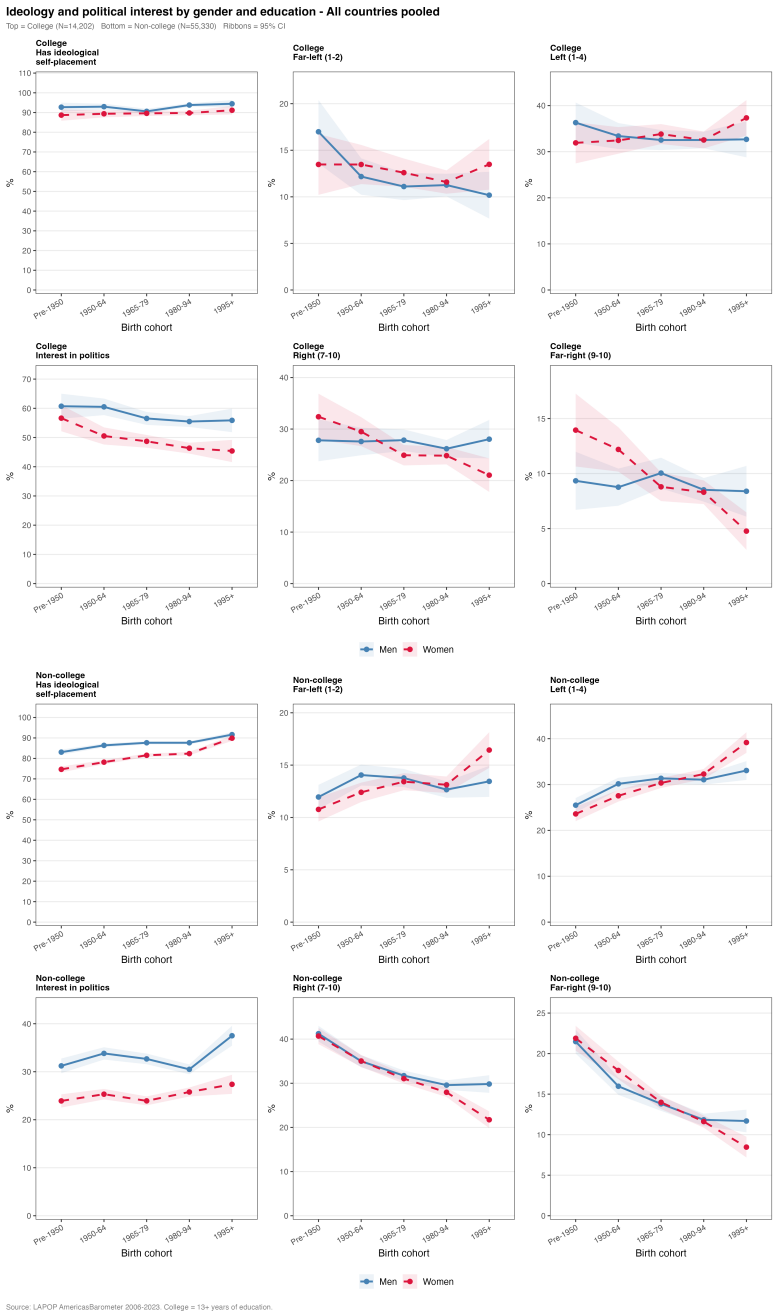

Figure A1: Ideology and interest in politics by gender, education, and birth cohort, all countries pooled. Top row = college-educated; bottom row = non-college. Panels (left to right): far-left (1–2), left (1–4), interest in politics, right (7–10), far-right (9–10). Source: LAPOP Americas-Barometer 2006–2023.

A1.2 Social Attitudes

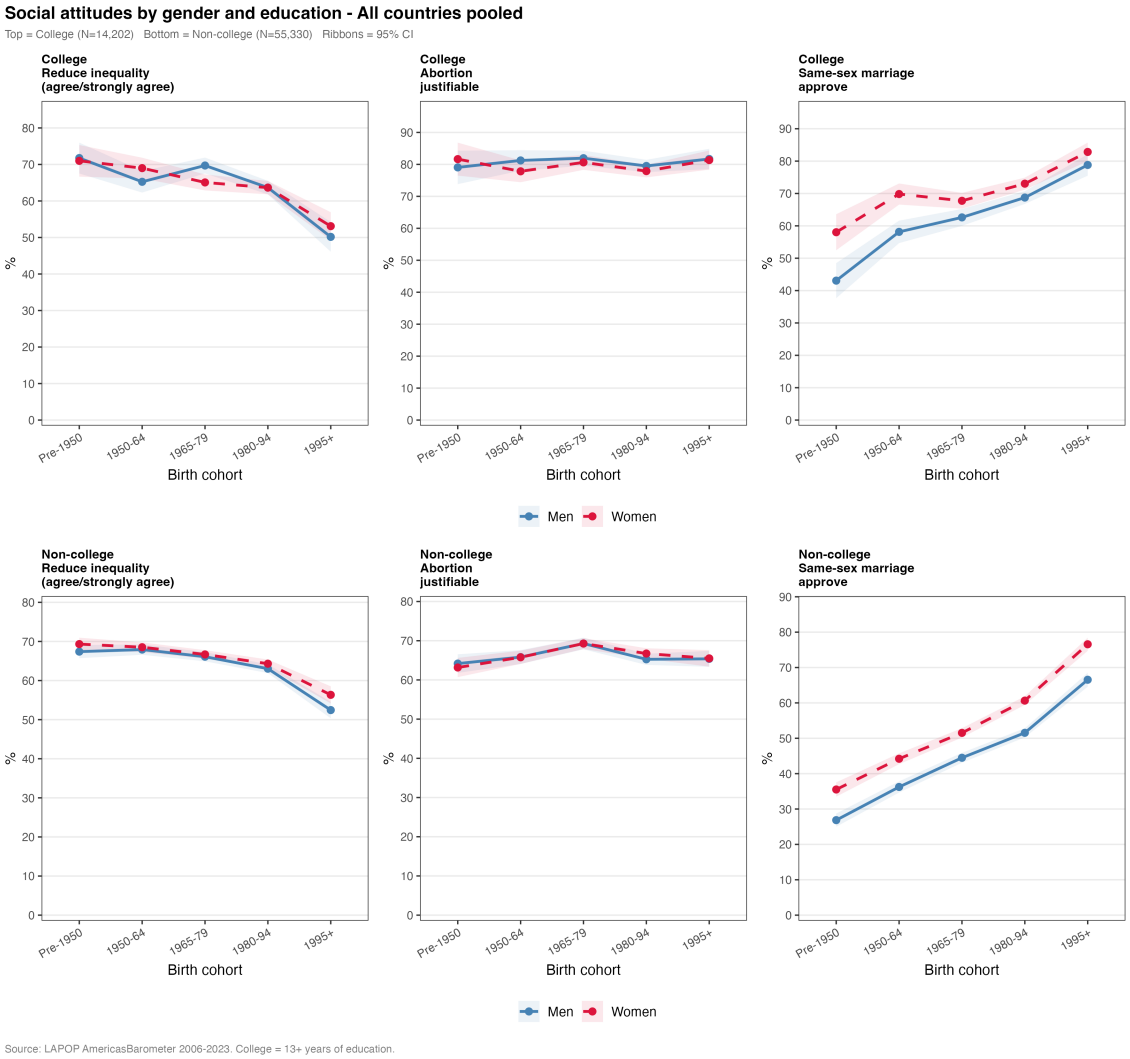

Figure A2: Social attitudes by gender, education, and birth cohort, all countries pooled. Top row = college-educated; bottom row = non-college. Panels: support for reducing inequality, abortion justifiability (from 2012), same-sex marriage approval. Source: LAPOP AmericasBarometer 2006–2023.

A2 Survey Wave: Levels by Gender

X-axis = LAPOP survey round (2006–2023). These figures correspond to the cohort-based figures in the main text, replicated with time series on the *x*-axis.

A2.1 Ideology and Political Interest

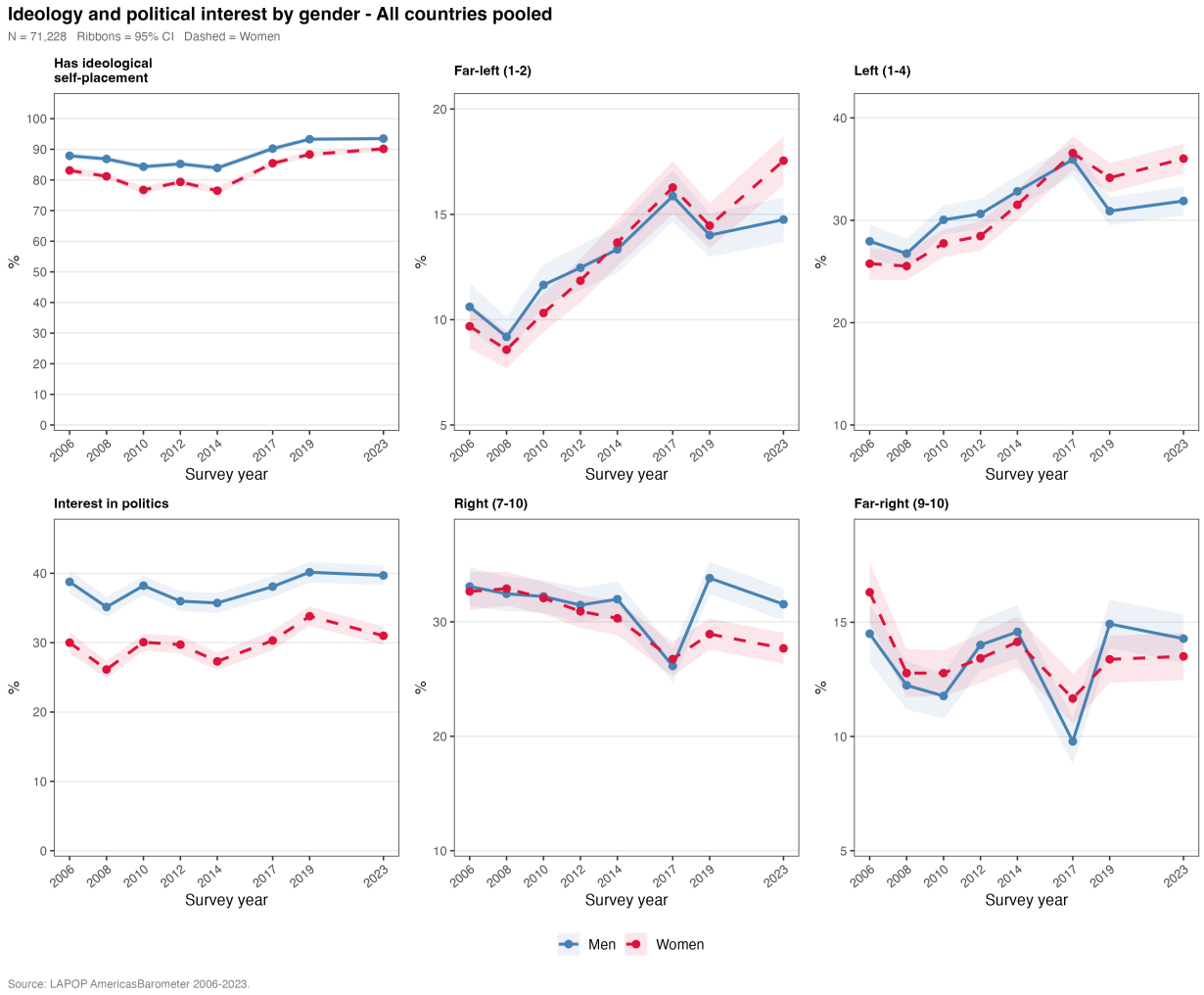

Figure A3: Ideology and interest in politics by gender, all countries pooled, 2006–2023. Panels (left to right): far-left (1–2), left (1–4), interest in politics, right (7–10), far-right (9–10). Blue solid lines = men; red dashed lines = women. Ribbons = 95 % CI. Source: LAPOP AmericasBarometer 2006–2023.

A2.2 Social Attitudes

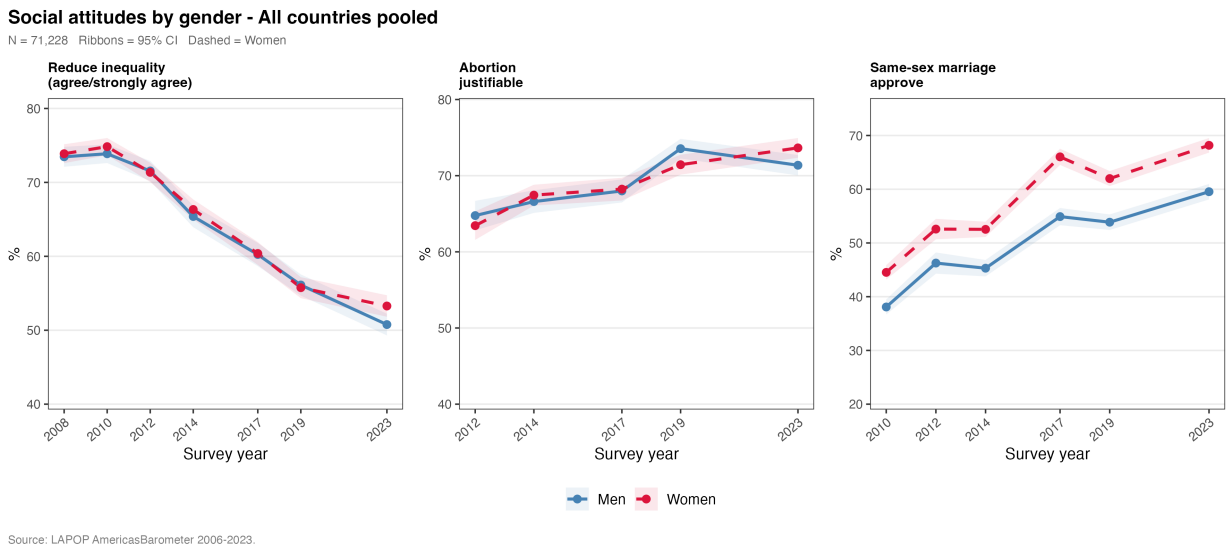

Figure A4: Social attitudes by gender, all countries pooled, 2006–2023. Panels: support for reducing inequality (agree/strongly agree), abortion justifiability (from 2012), and approval of same-sex marriage (d6 $\geq$ 6). Blue solid lines = men; red dashed lines = women. Ribbons = 95 % CI. Source: LAPOP AmericasBarometer 2006–2023.

A3 Gender and Education Gaps

These figures plot the gender gap (Women−Men, red) and the education gap (College−Non-college, orange) side by side. Sections A3.1–A3.2 use survey year on the x-axis; Sections A3.3–A3.4 use birth cohort.

A3.1 Ideology by Survey Wave

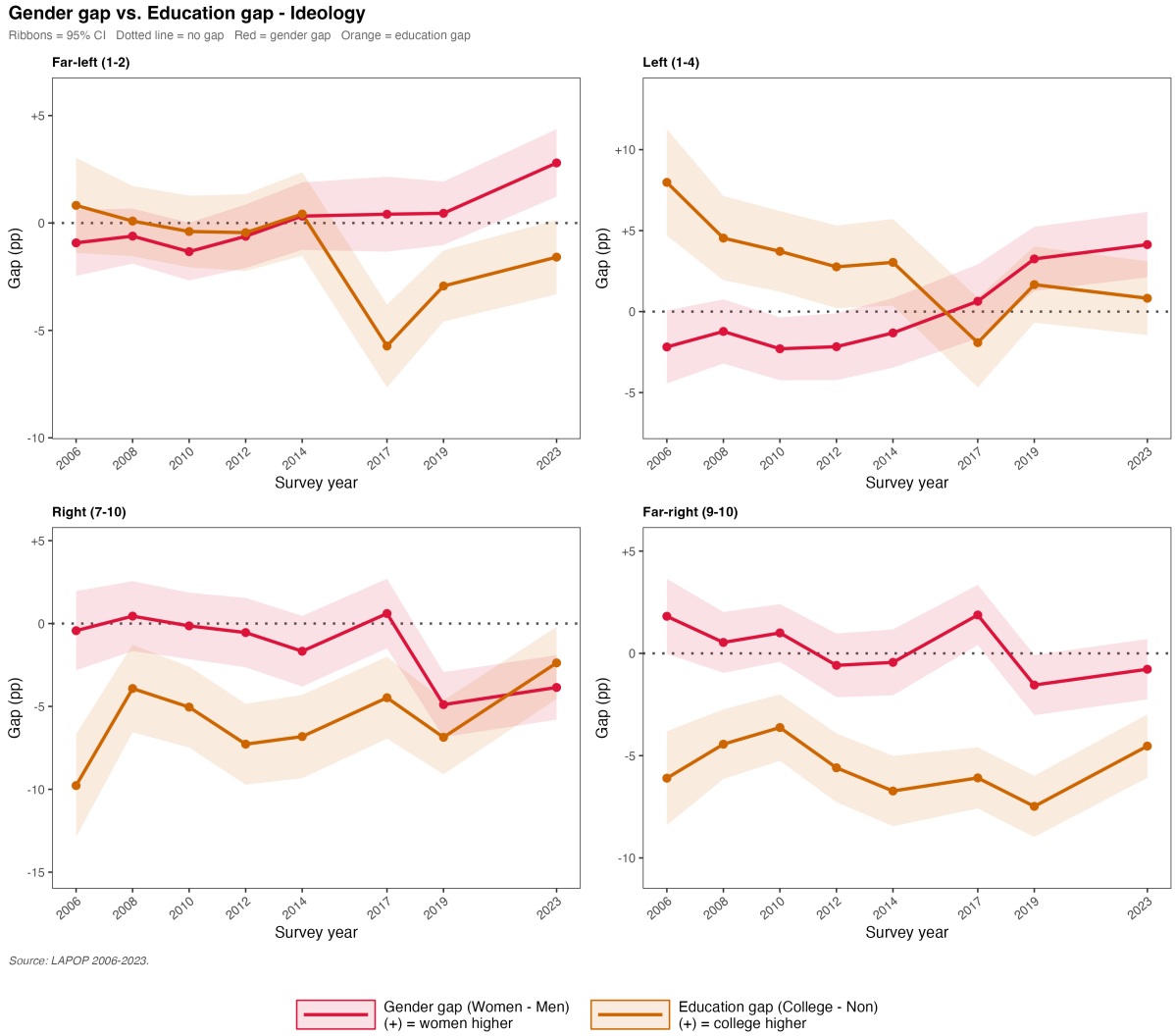

Figure A5: Gender gap (Women−Men, red) and education gap (College−Non-college, orange) in ideological identification, all countries pooled, 2006–2023. Panels: far-left (1–2), left (1–4), right (7–10), far-right (9–10). Positive = women or college higher. Source: LAPOP AmericasBarometer 2006–2023.

A3.2 Social Attitudes by Survey Wave

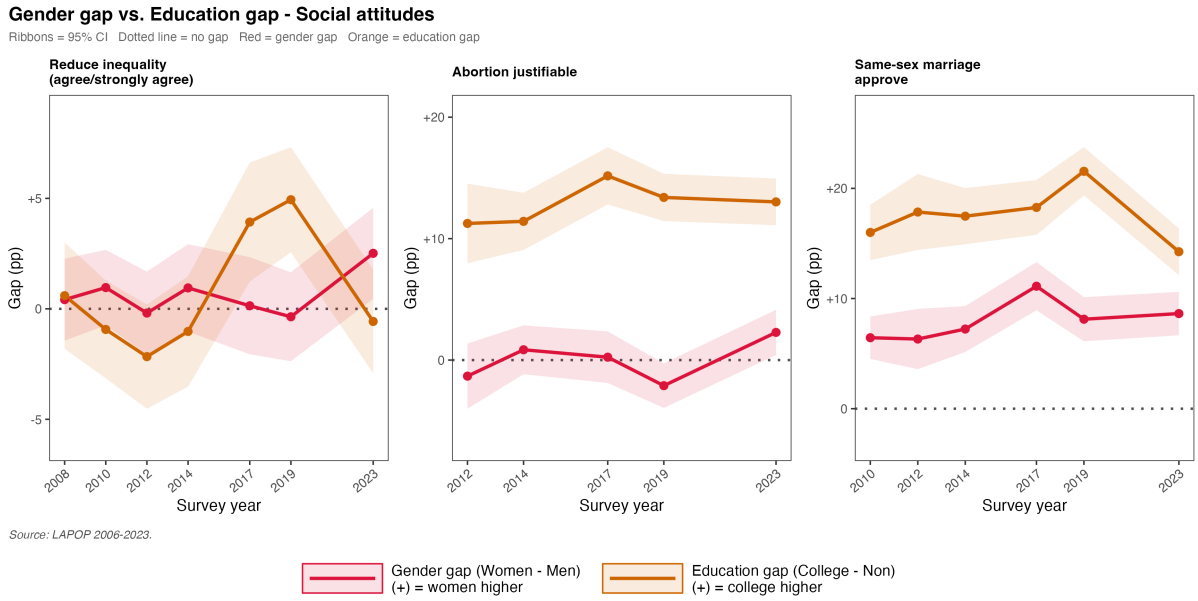

Figure A6: Gender gap (Women−Men, red) and education gap (College−Non-college, orange) in social attitudes, all countries pooled, 2006–2023. Positive = women or college higher. Source: LAPOP AmericasBarometer 2006–2023.

A3.3 Left–Right Gender Gap by Survey Wave

Figure A7 replicates the scissors figure from the main text (Figure 3 in the manuscript) with survey year on the x-axis instead of birth cohort. The same divergent pattern is visible in calendar time: the left-identification gap (Women−Men, crimson) is near zero until roughly 2014–2017 and then rises sharply, while the right-identification gap (Women−Men, navy) turns increasingly negative over the same window. The two series cross near the 2014 wave and thereafter move in mirror-image directions. This wave-based view is consistent with the cohort-based scissors figure and with the HAPC period evidence in the APC section: whatever is driving the divergence accelerated after 2015, the period associated with the regional rise of *Ni Una Menos* and allied feminist mobilizations.

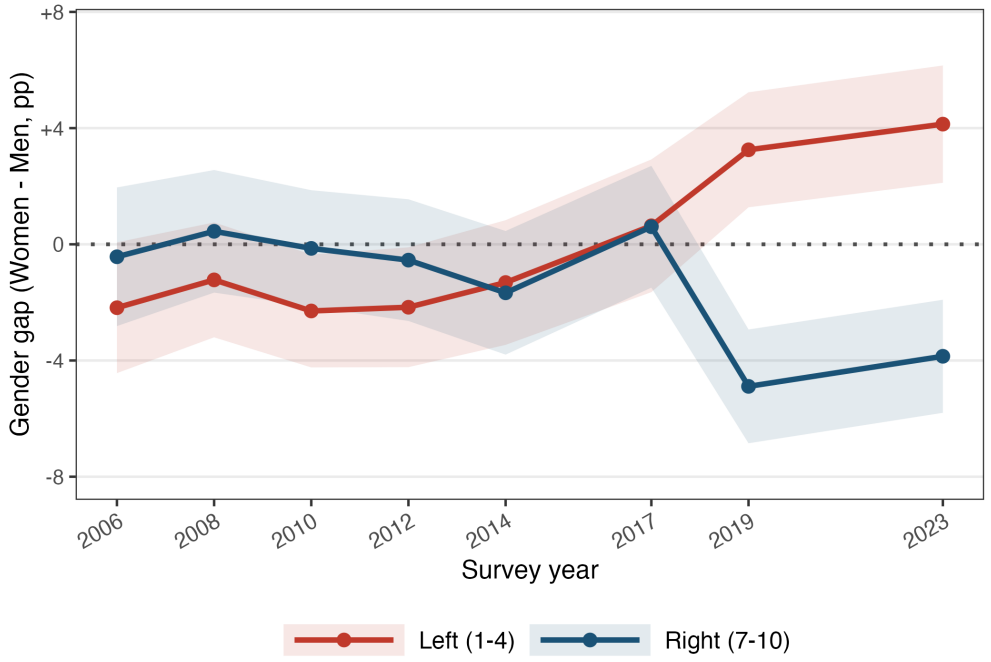

Figure A7: Gender gap (Women−Men, pp) in left identification (1–4, crimson) and right identification (7–10, navy) by survey wave, all six countries pooled. Positive values indicate women are more likely to hold that identification; negative values indicate men are more likely. Zero line (dotted) = no gap. Ribbons = 95 % CI. Source: LAPOP AmericasBarometer 2006–2023.

A3.4 Social Attitudes by Birth Cohort

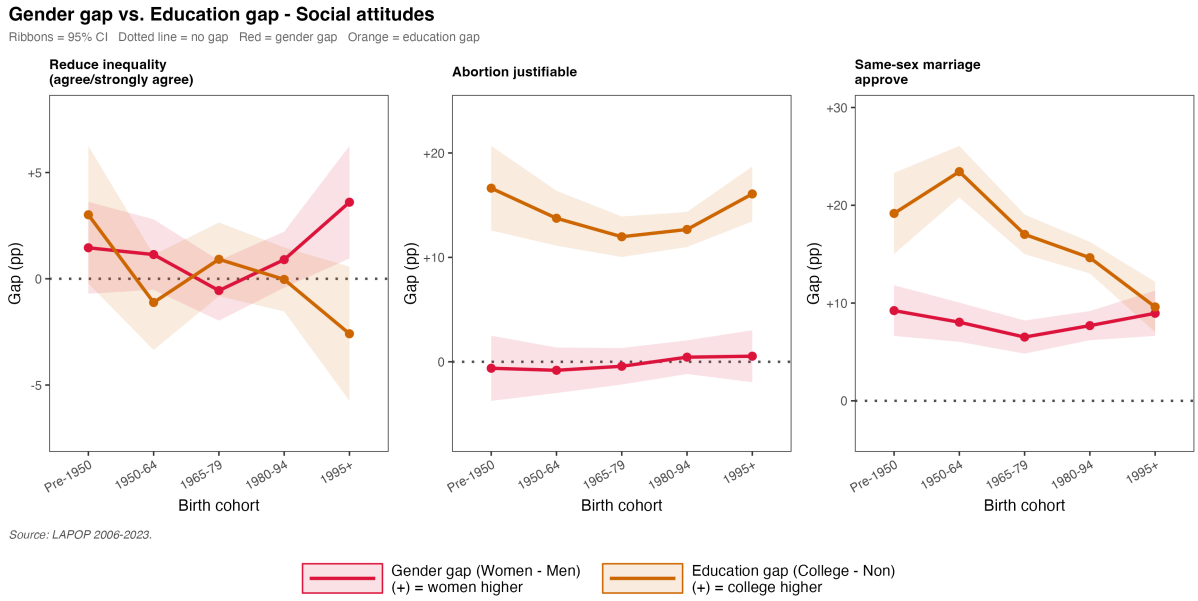

Figure A8: Gender gap (Women−Men, red) and education gap (College−Non-college, orange) in social attitudes by birth cohort, all countries pooled. Panels: support for reducing inequality, abortion justifiability, same-sex marriage approval. Positive = women or college higher. Source: LAPOP AmericasBarometer 2006–2023.

A4 By-Country Birth Cohort

Birth cohort group on the x-axis (Pre-1950, 1950–64, 1965–79, 1980–94, 1995+), pooling all survey waves.

A4.1 Far-Left Identification (1–2)

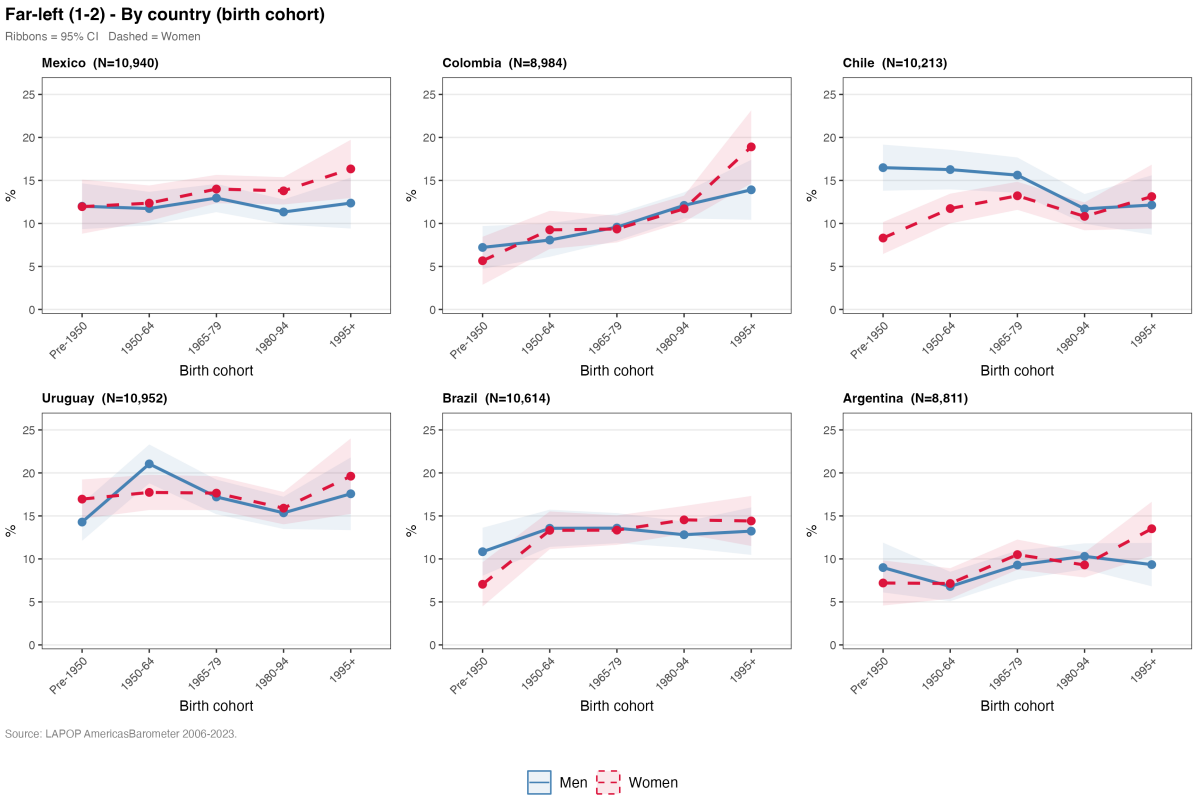

Figure A9: Far-left identification (%, scale positions 1–2) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.2 Left Identification (1–4)

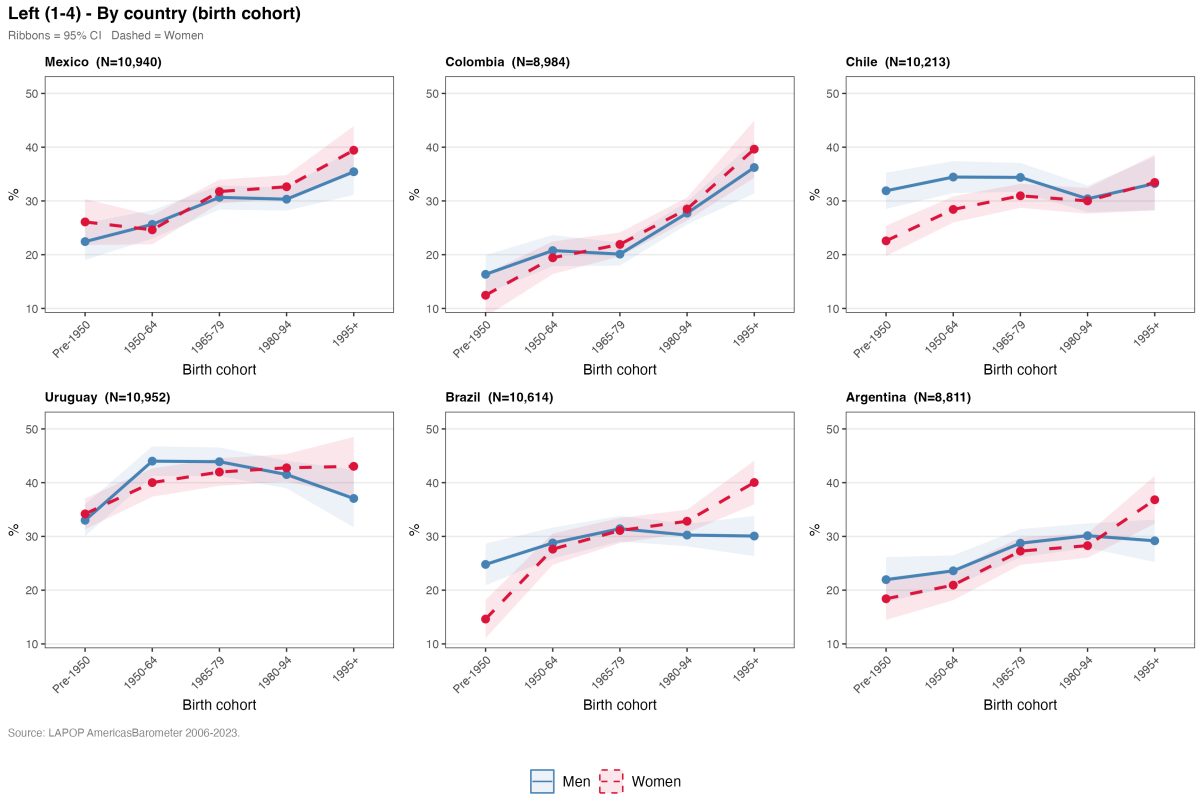

Figure A10: Left identification (%, scale positions 1–4) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.3 Interest in Politics

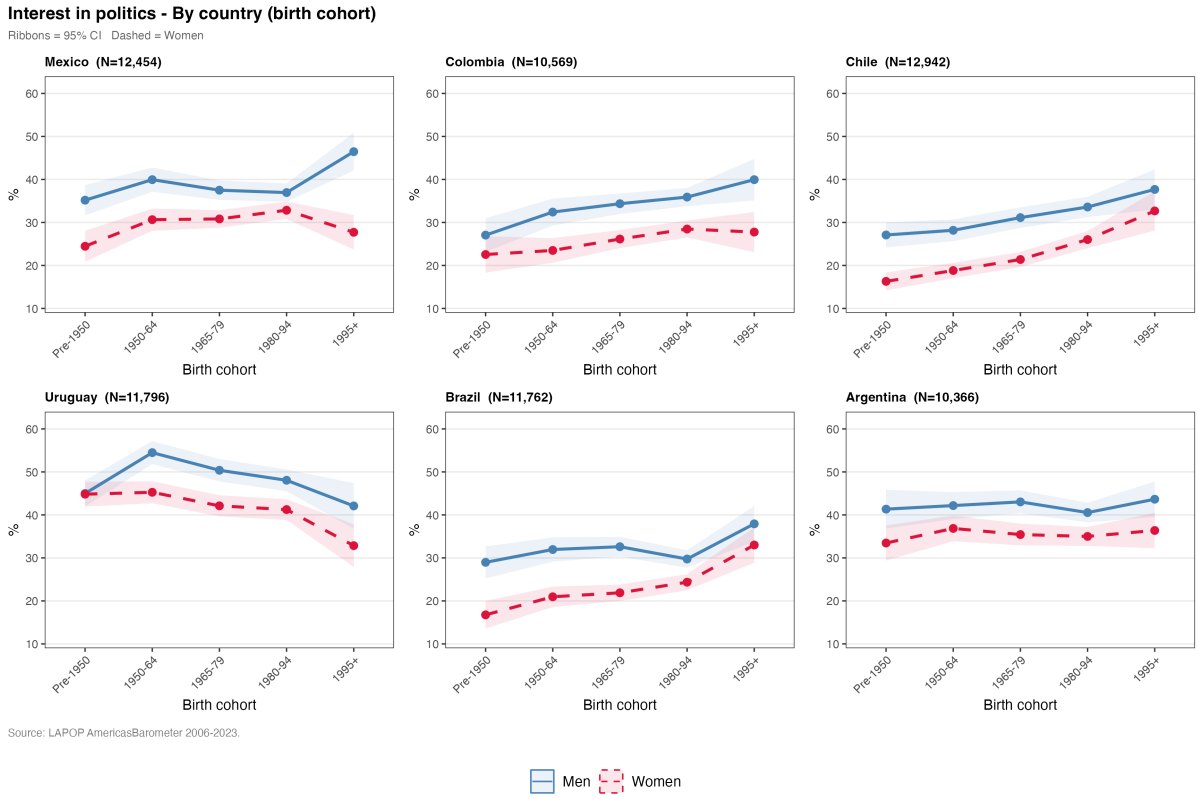

Figure A11: Interest in politics (% somewhat or very interested) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.4 Right Identification (7–10)

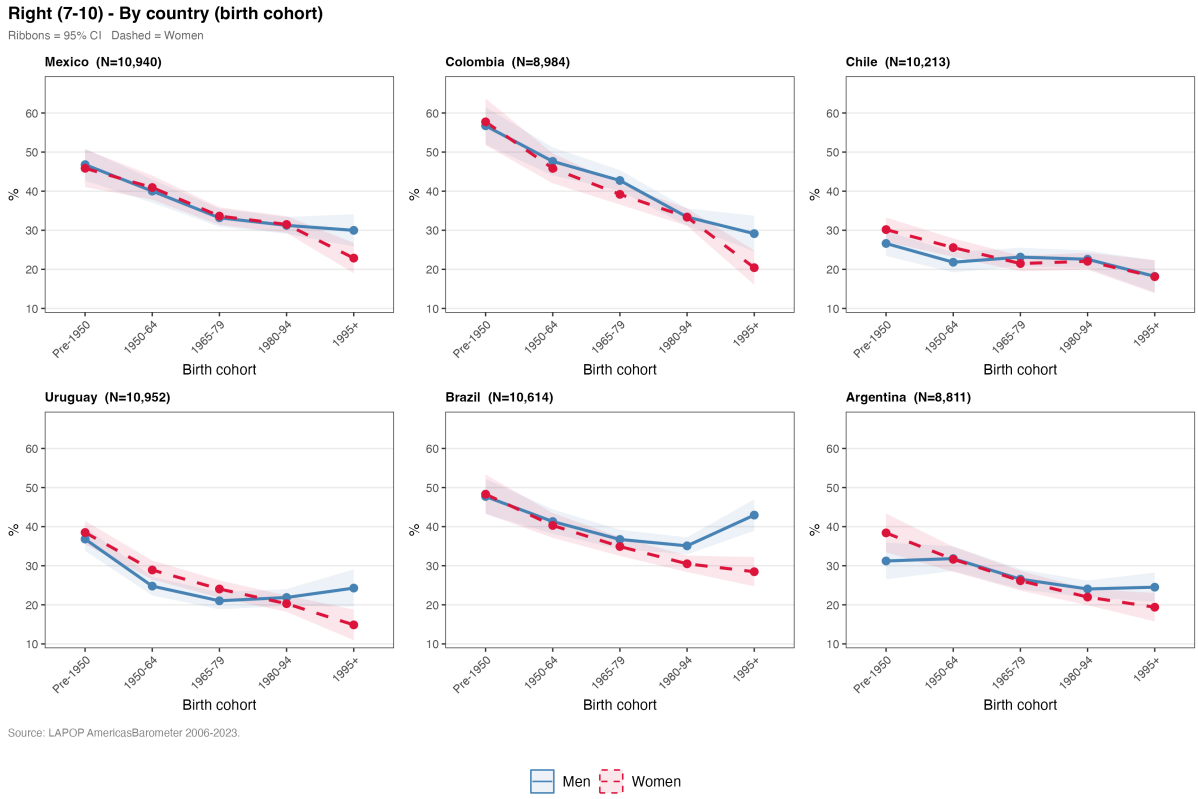

Figure A12: Right identification (%, scale positions 7–10) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.5 Far-Right Identification (9–10)

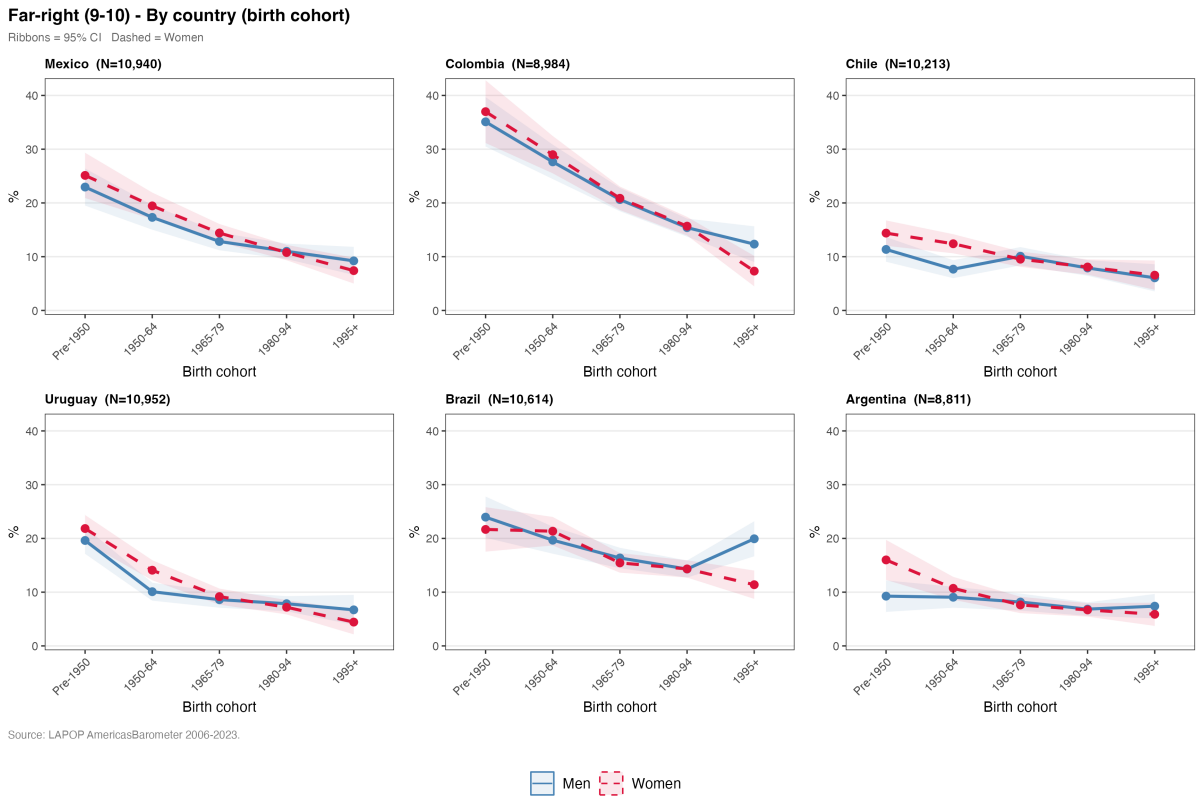

Figure A13: Far-right identification (%, scale positions 9–10) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.6 Proportion Placing on Left-Right Scale

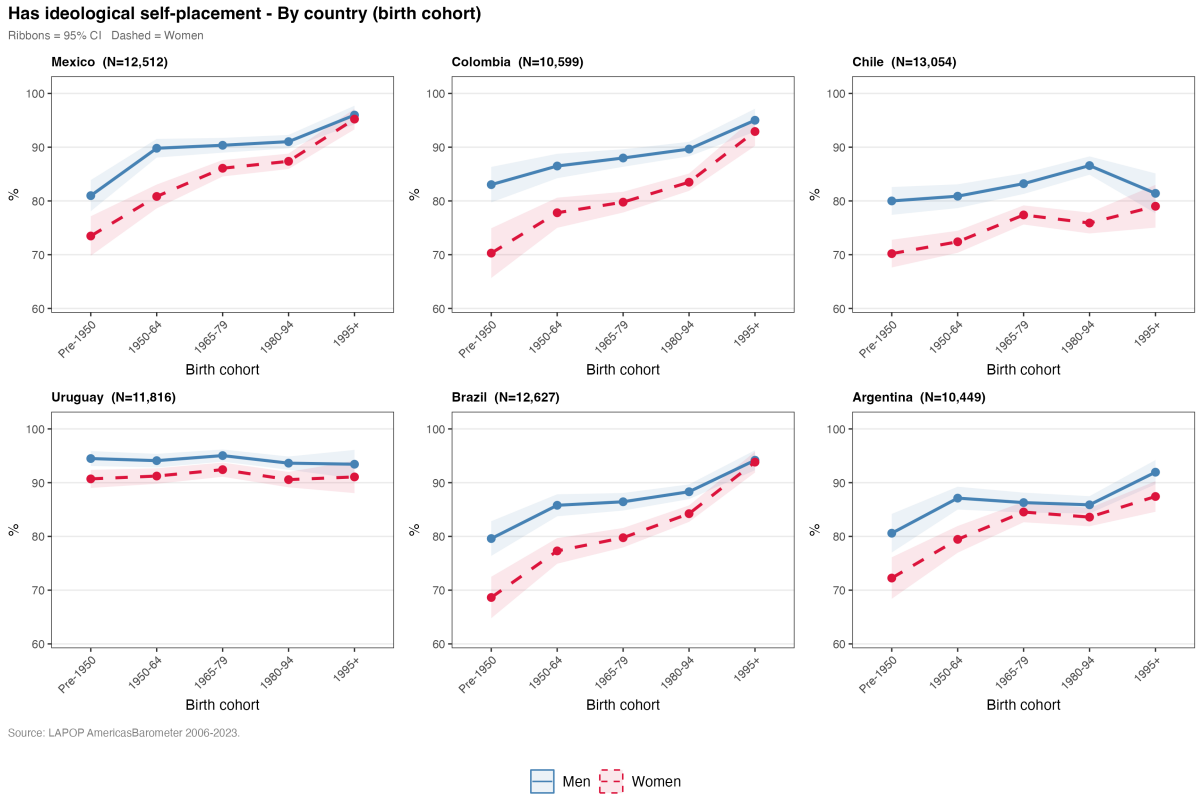

Figure A14: Share of respondents who placed themselves on the left-right scale, by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.7 Support for Reducing Inequality

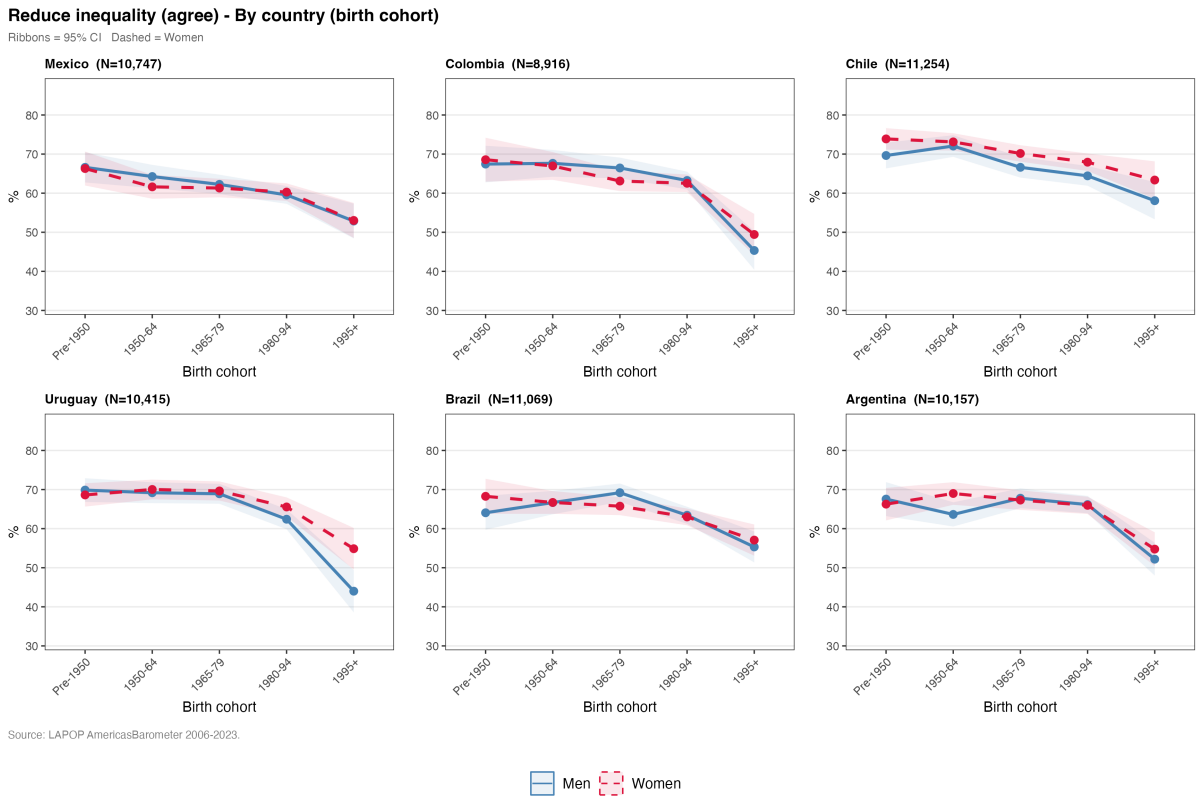

Figure A15: Support for reducing inequality (% agree or strongly agree) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A4.8 Abortion Justifiability

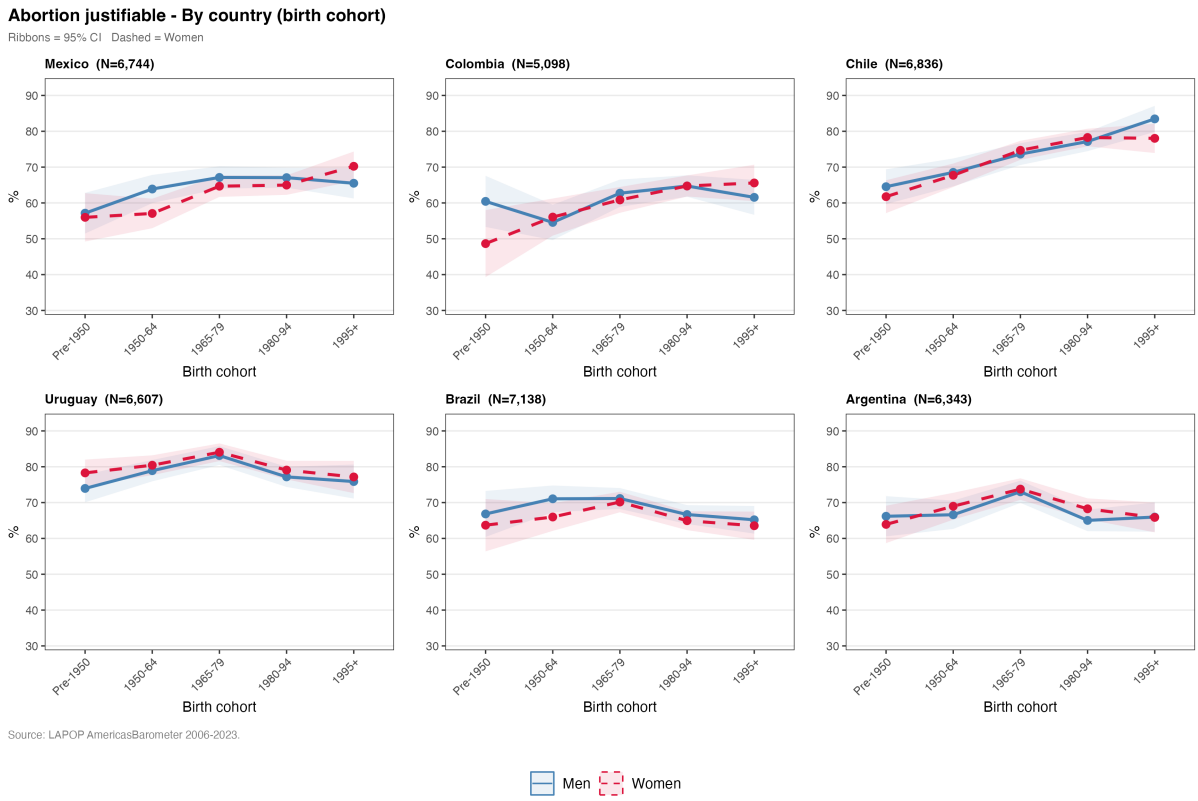

Figure A16: Abortion justifiability (% saying abortion is justifiable) by sex, country, and birth cohort. Question first asked in 2012. Source: LAPOP AmericasBarometer 2012–2023.

A4.9 Same-Sex Marriage Approval

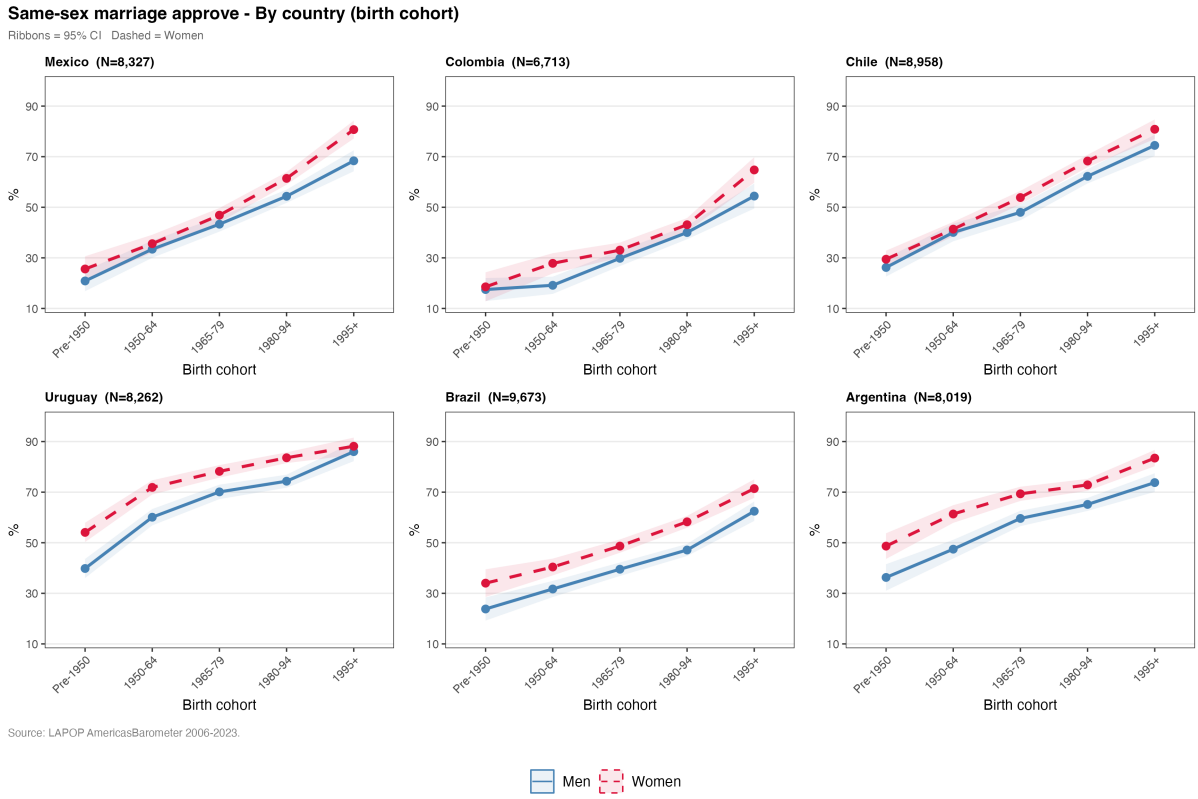

Figure A17: Same-sex marriage approval (% scoring $\geq$ 6 on a 1–10 scale) by sex, country, and birth cohort. Source: LAPOP AmericasBarometer 2006–2023.

A5 Additional Robustness Checks

A5.1 Stricter Tertiary Threshold

These figures repeat the education-split plots from the main text using a stricter education definition. "Strict tertiary" means 16 or more years of schooling in waves with continuous education coding and completed tertiary education in the 2023 categorical waves.

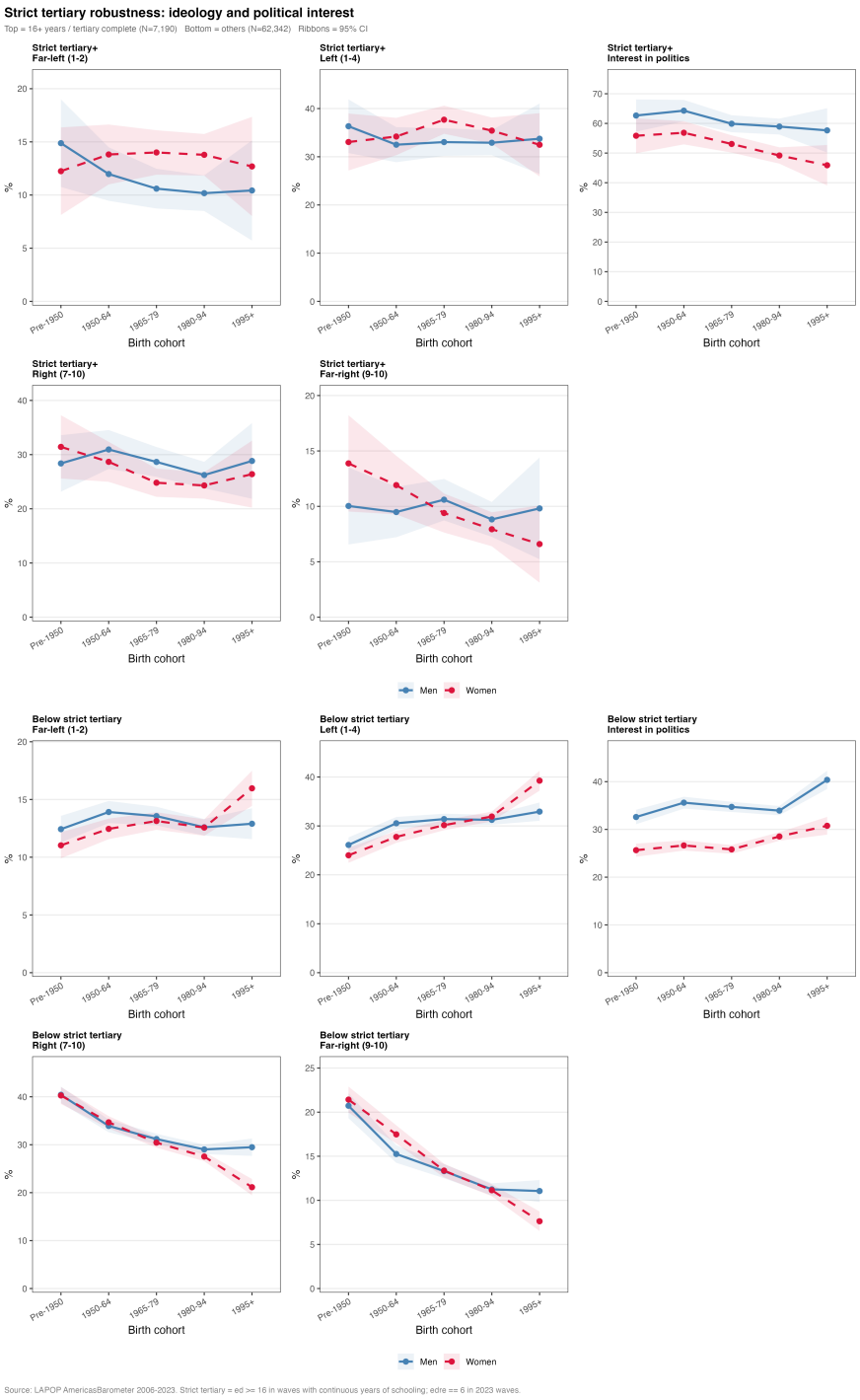

Figure A18: Strict-tertiary robustness check: ideology and political interest by gender and birth cohort. Top row = strict tertiary; bottom row = all others. Strict tertiary is defined as 16+ years of schooling in continuous-year waves and completed tertiary in 2023 categorical waves. Source: LAPOP AmericasBarometer 2006–2023.

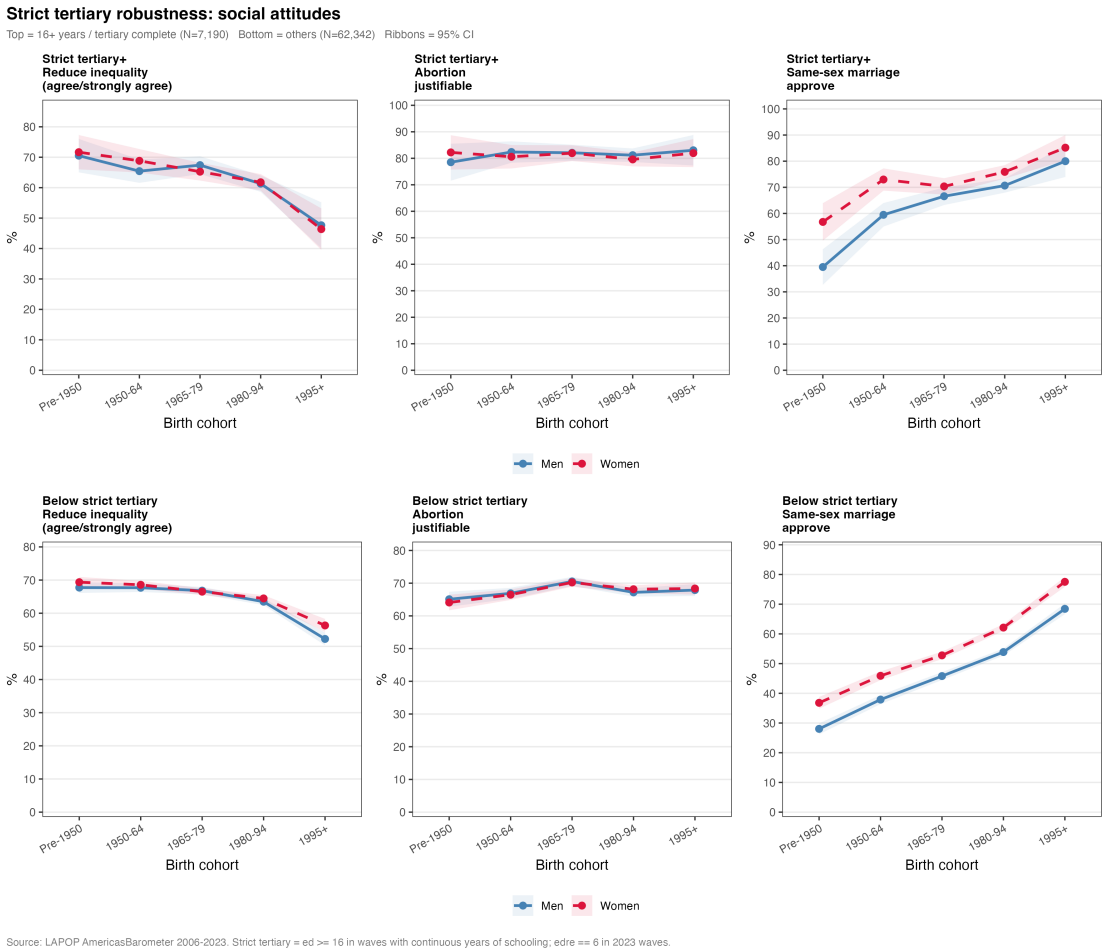

Figure A19: Strict-tertiary robustness check: social attitudes by gender and birth cohort. Top row = strict tertiary; bottom row = all others. Source: LAPOP AmericasBarometer 2006–2023.

A5.2 Rake-Weighted Cohort Plots and Gaps

These figures reproduce the main cohort-level plots and gap estimates after rake-weighting the pooled sample to country-specific margins for sex, age, and sex-by-education attainment, drawing the targets from the World Bank 2020 series and the 2022 INDEC census for Argentina.

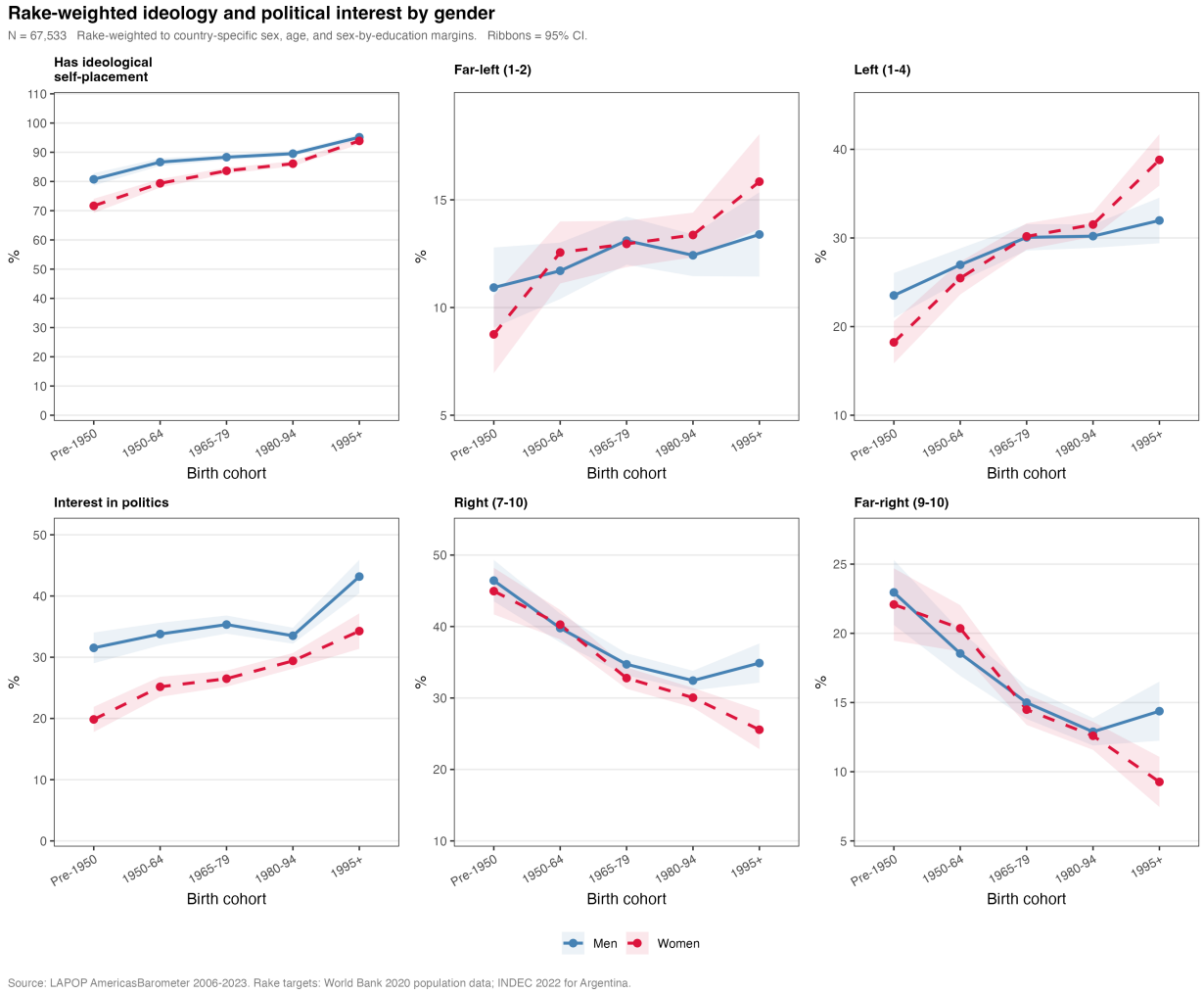

Figure A20: Rake-weighted ideology and political interest by gender and birth cohort. Same outcomes and same Men/Women cell means as the main-text unweighted figures, but each cell is weighted to country-specific population marginals on sex, age, and sex-by-education attainment. Ribbons = 95 % CI from the rake-weighted SE. Source: LAPOP AmericasBarometer 2006–2023; rake targets from World Bank 2020 population data and INDEC 2022 for Argentina.

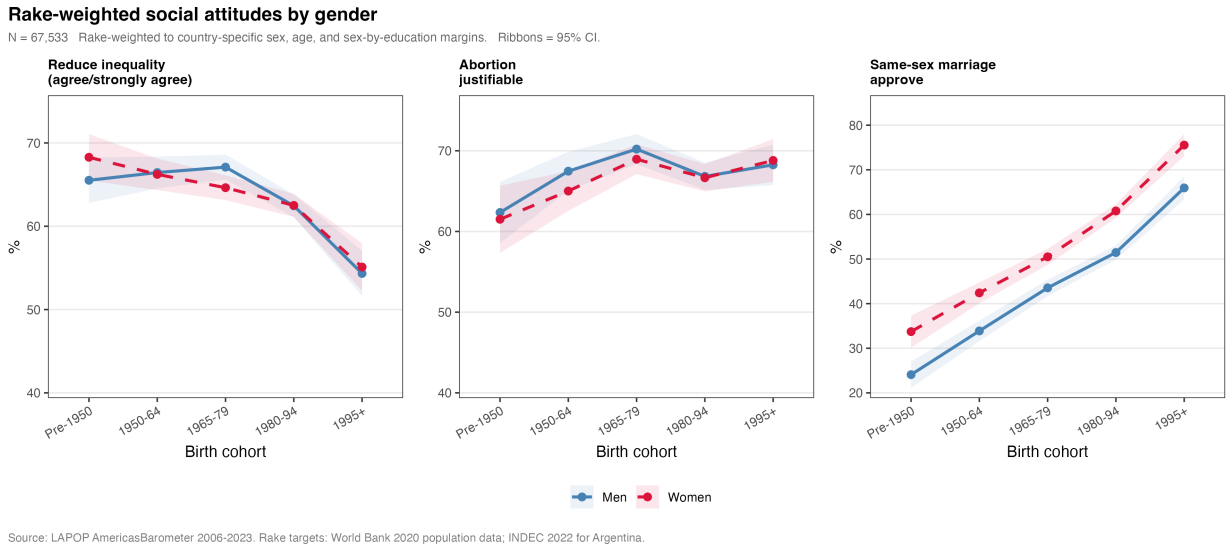

Figure A21: Rake-weighted social attitudes by gender and birth cohort. Same outcomes and same Men/Women cell means as the main-text unweighted figures, weighted to country-specific population marginals on sex, age, and sex-by-education attainment. Ribbons = 95 % CI from the rake-weighted SE. Source: LAPOP AmericasBarometer 2006–2023; rake targets from World Bank 2020 population data and INDEC 2022 for Argentina.

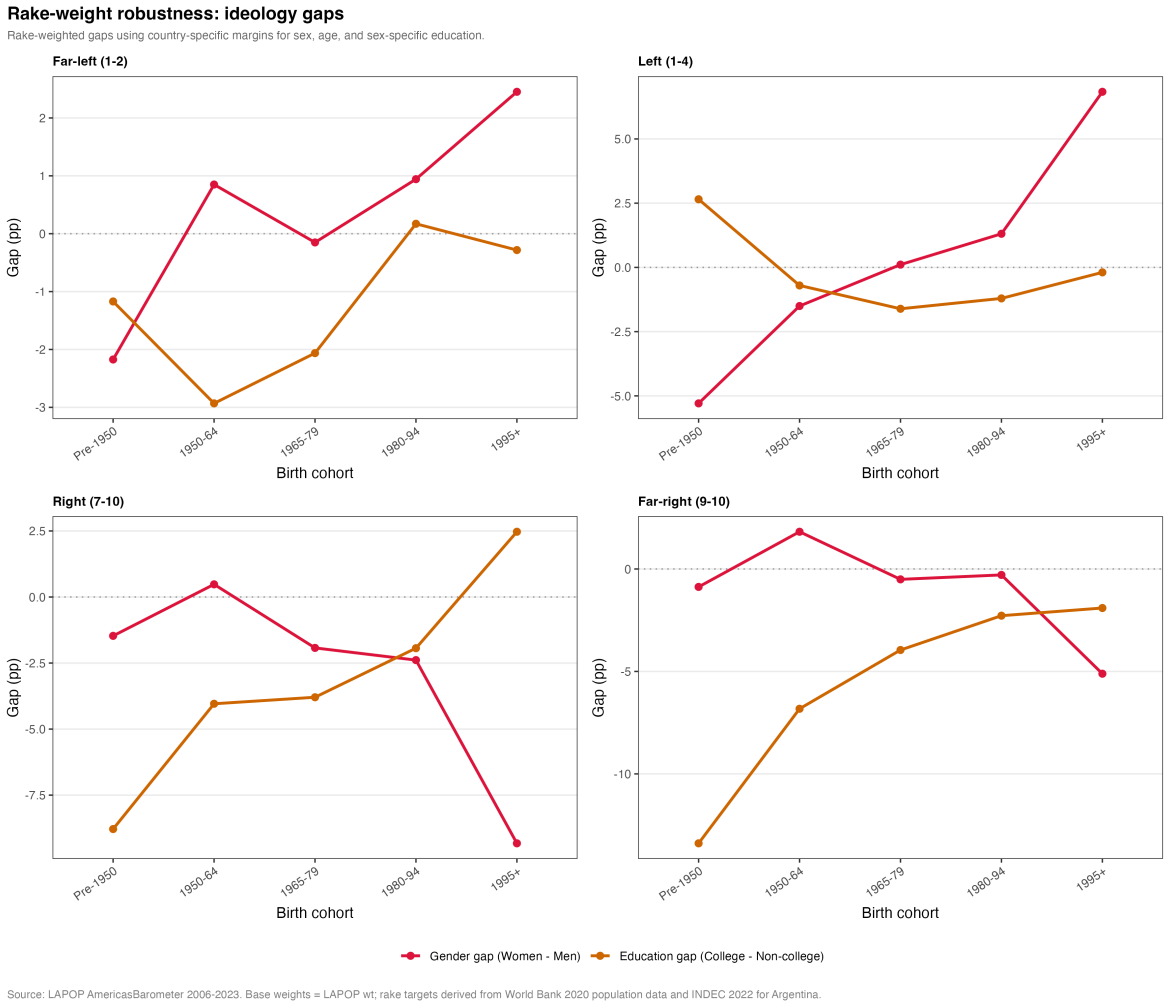

Figure A22: Rake-weight robustness check: ideology gaps by birth cohort. Red = gender gap (Women−Men); orange = education gap (College−Non-college). Source: LAPOP AmericasBarometer 2006–2023; rake targets from World Bank 2020 population data and INDEC 2022 for Argentina.

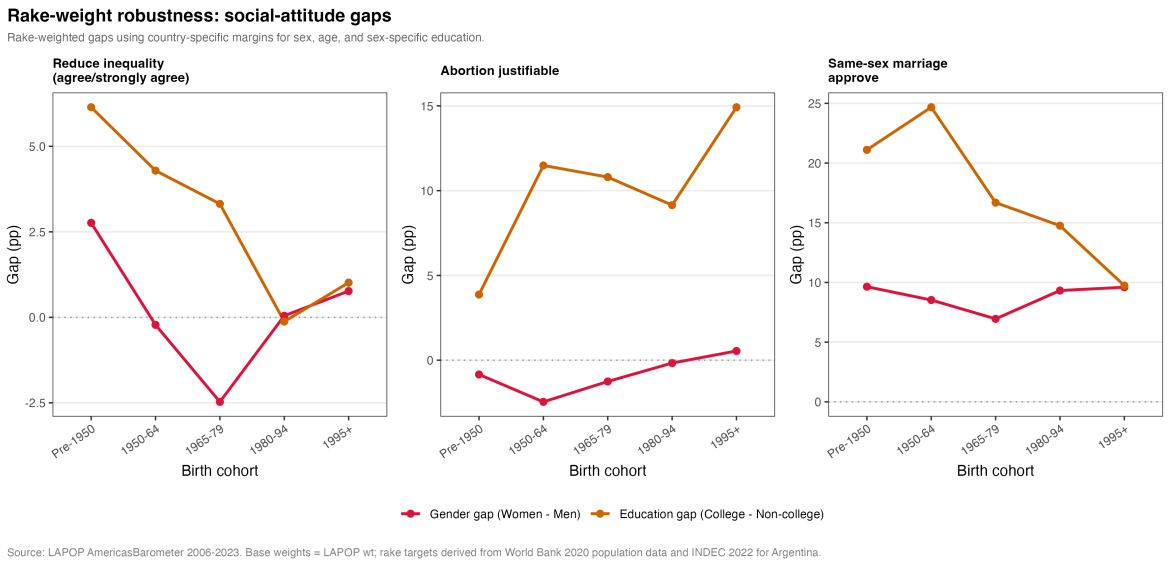

Figure A23: Rake-weight robustness check: social-attitude gaps by birth cohort. Source: LAPOP AmericasBarometer 2006–2023; rake targets from World Bank 2020 population data and INDEC 2022 for Argentina.

A5.3 Approval of Feminist Protests in 2023: Direct Probe

These two figures support the discussion in the main text of a direct 2023 probe on approval of feminist mobilization. Respondents are asked, on a 1–10 scale, their approval of protests by groups defending women's rights (*e17a*) and by feminist groups (*e17b*). I report cell means as % approve (score ≥ 6) by sex and age group (under 25 vs. 25 and older), rake-weighted using the same country, country×sex, country×age, and country×sex×education margins as the rest of the rake-weighted analyses in this appendix. Figure A24 pools all six countries; Figure A25 shows the breakdown country by country. The country breakdown shows the heterogeneity that the pooled cells flatten out: in the three countries with the strongest recent feminist mobilizations (Argentina, Chile, and Mexico) under-25 women report somewhat higher approval of explicitly feminist protests than under-25 men, with Mexico the sharpest single case, while in Brazil, Colombia, and Uruguay the picture is flatter or runs in the opposite direction.

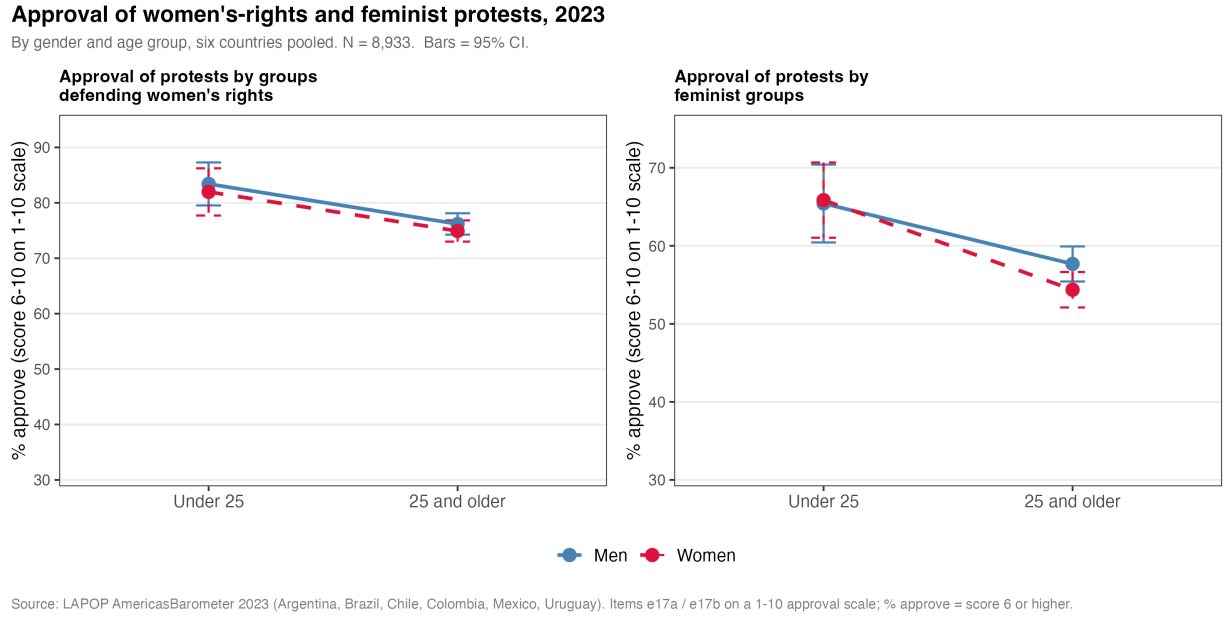

Figure A24: Approval of protests by groups defending women's rights (*e17a*) and by feminist groups (*e17b*), by sex and age group, 2023 wave only. Six countries pooled (Argentina, Brazil, Chile, Colombia, Mexico, Uruguay). % approve = score 6 or higher on a 1–10 approval scale. Cell means are rake-weighted to country, country×sex, country×age, and country×sex×education margins. Bars = 95 % confidence intervals. Source: LAPOP AmericasBarometer 2023.

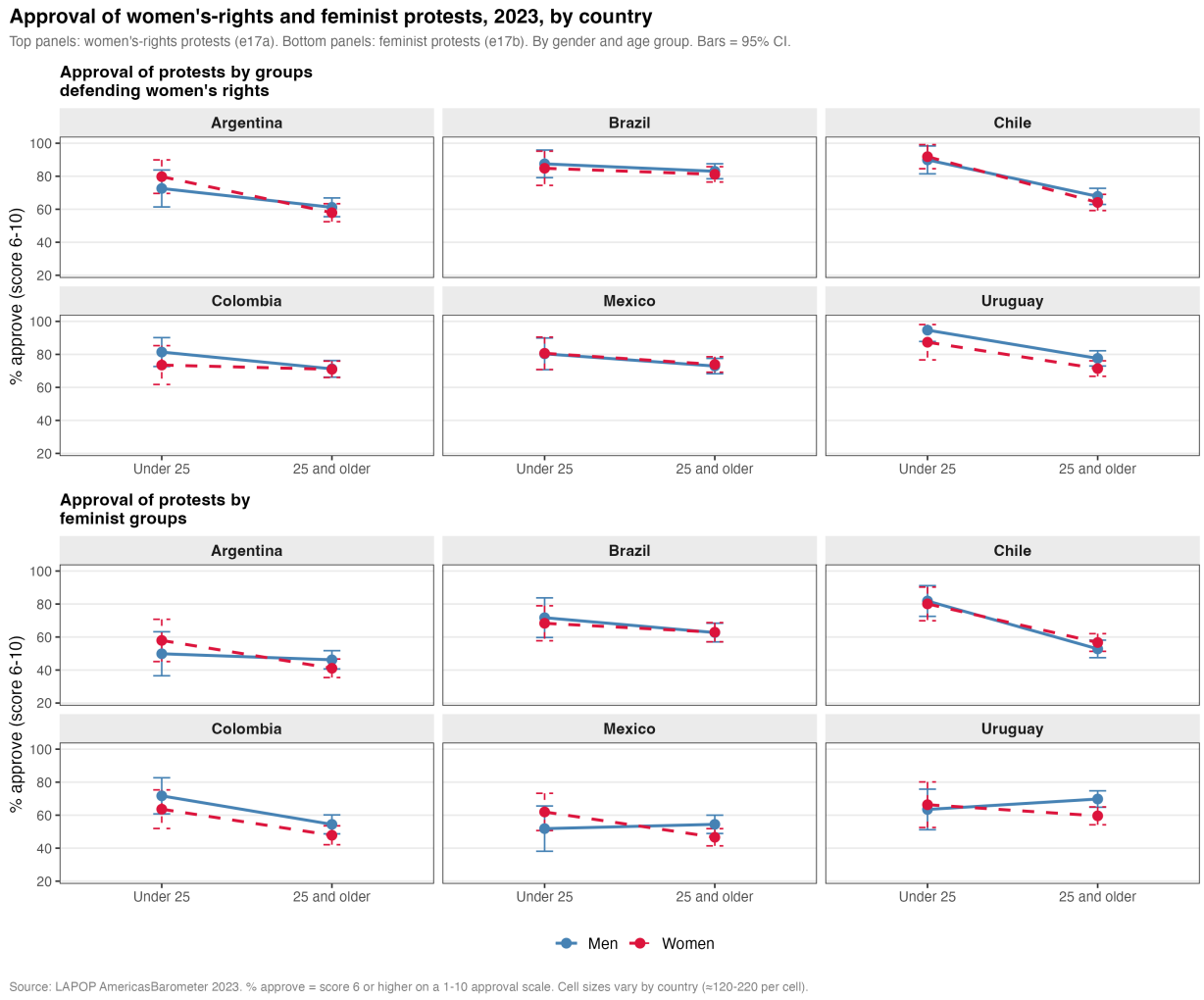

Figure A25: Approval of protests by groups defending women's rights (*e17a*) and by feminist groups (*e17b*), by sex, age group (under 25 vs. 25 and older), and country, 2023 wave only. % approve = score 6 or higher on a 1–10 approval scale. Cell means are rake-weighted to country, country×sex, country×age, and country×sex×education margins. Bars = 95 % confidence intervals. Source: LAPOP AmericasBarometer 2023.

A5.4 Leave-One-Country-Out Pooled Gaps

This figure repeats the main pooled gender-gap estimates for four core outcomes while excluding one country at a time. The black line shows the pooled estimate using all six countries; the gray band spans the range across the six leave-one-country-out replications.

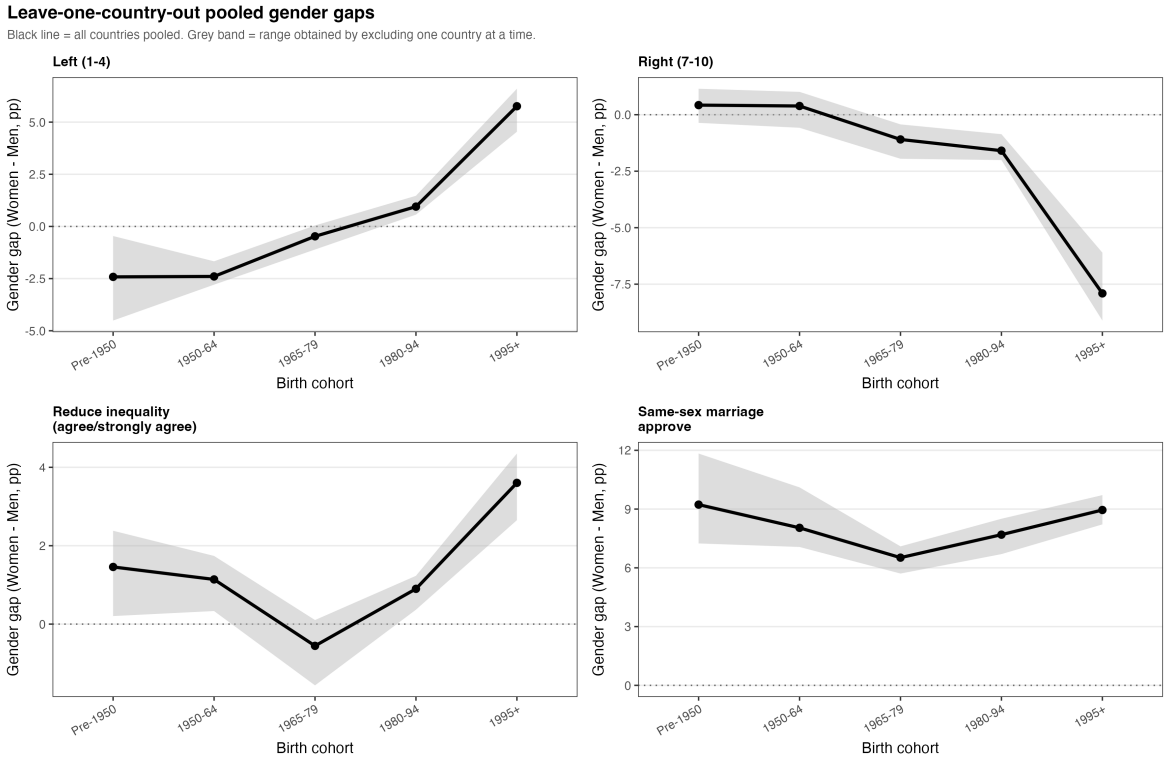

Figure A26: Leave-one-country-out robustness check: pooled gender gaps by birth cohort. Black line = all countries pooled. Gray band = range obtained by excluding one country at a time. Panels: left identification, right identification, support for reducing inequality, and approval of same-sex marriage. Source: LAPOP AmericasBarometer 2006–2023.

A6 Multilevel Regression and Poststratification

A6.1 Poststratification Table Construction

I construct a poststratification table of 96 cells defined by the cross-classification of sex (2 categories), age group (4: 18–29, 30–44, 45–64, 65+), education (2: college, non-college), and country (6). I draw on two sets of external population data:

1. **Population by sex and age.** I use World Bank population indicators (SP.POP series, reference year 2020), which are derived from the United Nations World Population Prospects. Five-year age groups are aggregated into four categories, with the 15–19 group adjusted by a factor of 0.4 to approximate the 18–19 subgroup that falls within LAPOP's eligible population.

2. **Education attainment by sex.** Tertiary education completion rates (at least short-cycle tertiary, % of population 25+) come from World Bank indicator SE.TER.CUAT.ST, separately for males and females, reference year 2020. For Argentina, where the World Bank series has missing values, I use estimates derived from the 2022 INDEC national census (approximately 24% for women and 18% for men). To account for the well-documented age gradient in educational attainment—with younger cohorts having substantially higher completion rates—I apply multiplicative adjustments by age group: $\times 0.6$ for 18–29 (many still enrolled, fewer completed), $\times 1.2$ for 30–44 (peak completion), $\times 1.0$ for 45–64, and $\times 0.5$ for 65+.

Table A1 reports the tertiary education rates used for each country and sex.

Table A1: Tertiary education attainment rates (% of population 25+) used for poststratification, by country and sex. Source: World Bank (2020), except Argentina (INDEC 2022 census estimate).

Country	Male (%)	Female (%)
Argentina	18.0	24.0
Brazil	19.7	23.0
Chile	19.8	18.6
Colombia	20.7	24.3
Mexico	19.3	18.3
Uruguay	11.0	16.1

A6.2 Model Specification

For each of the nine binary outcome variables, I estimate a multilevel logistic regression:

$$\Pr(y_i = 1) = \text{logit}^{-1}\big(\beta_0 + \beta_1 \cdot \text{female}_i + \beta_2 \cdot \text{college}_i + \beta_3 \cdot \text{female}_i \times \text{college}_i + \gamma \cdot \text{female}_i \times \text{age}_{k[i]} + \alpha^{\text{age}}_{k[i]} + \alpha^{\text{country}}_{s[i]} + \alpha^{\text{wave}}_{t[i]}\big)$$

where the random effects are drawn from normal distributions: $\alpha^{\text{age}}_k \sim N(0, \sigma^2_{\text{age}})$, $\alpha^{\text{country}}_s \sim N(0, \sigma^2_{\text{country}})$, and $\alpha^{\text{wave}}_t \sim N(0, \sigma^2_{\text{wave}})$. Models are estimated using the `lme4` package in R with the BOBYQA optimizer (Kastellec, Lax and Phillips, 2016).

For poststratification, I generate predicted probabilities for each of the 96 census cells under each survey wave, then compute weighted averages within each (country × wave × sex) stratum using the census population proportions as weights. The MRP-adjusted gender gap is the difference between the female and male poststratified estimates.

A6.3 MRP Results

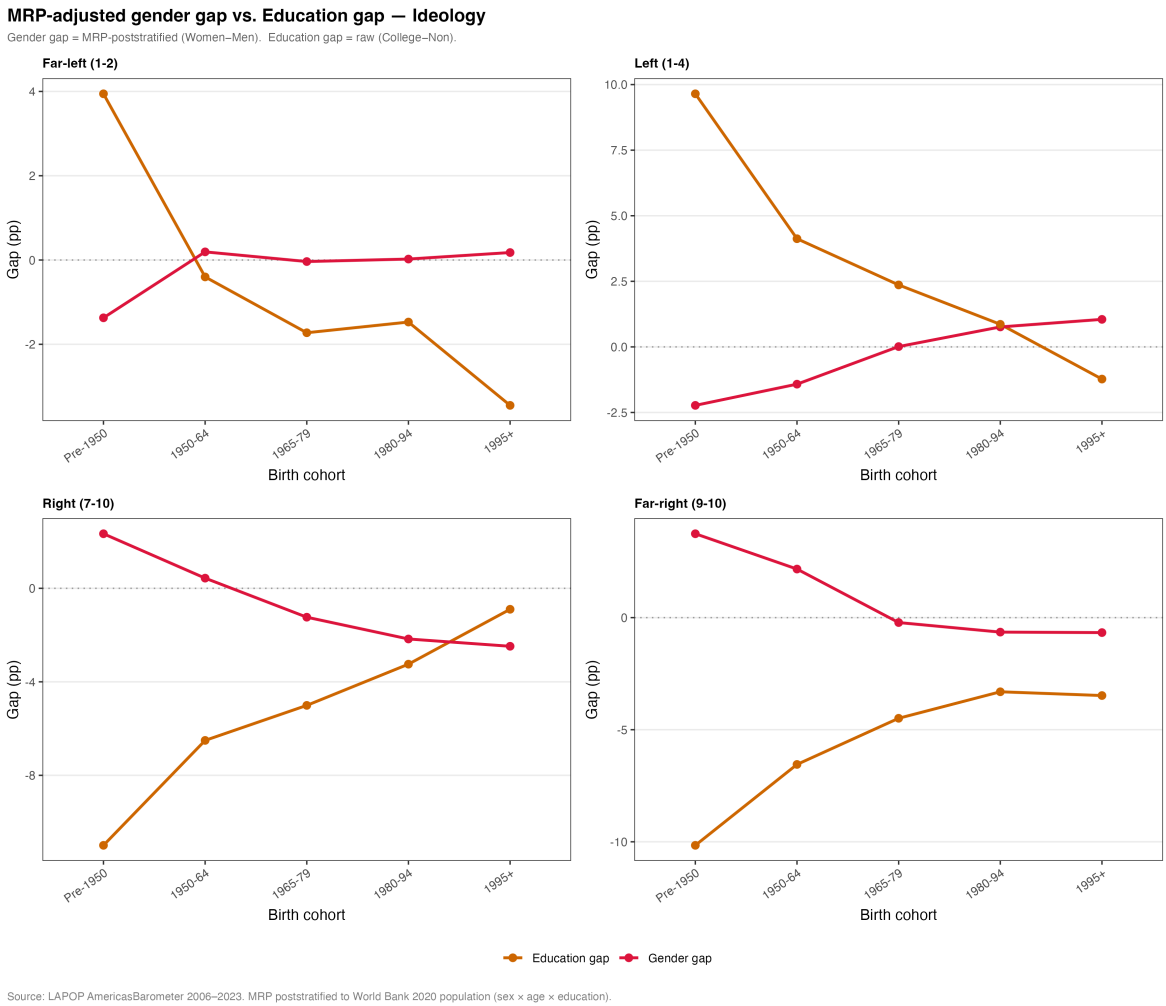

Figure A27: MRP robustness check — ideology. Each panel shows two gaps by birth cohort: the MRP-adjusted gender gap (Women−Men, red) and the raw education gap (College−Non-college, orange). The gender gap is poststratified to the census population (sex × age × education × country); the education gap is the unweighted raw mean difference, included for direct comparison with Figure 3 in the main text. Panels: far-left (1–2), left (1–4), right (7–10), far-right (9–10). Source: LAPOP AmericasBarometer 2006–2023; poststratification from World Bank 2020 population data.

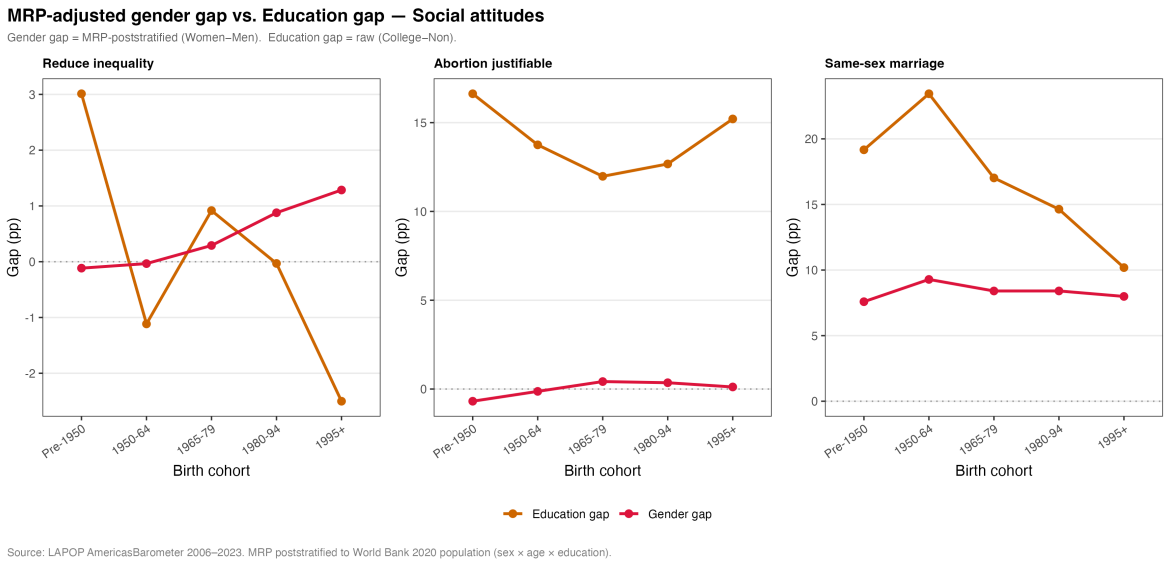

Figure A28: MRP robustness check — social attitudes. Each panel shows two gaps by birth cohort: the MRP-adjusted gender gap (Women−Men, red) and the raw education gap (College−Non-college, orange). Panels: reduce inequality, abortion justifiable, same-sex marriage approval. Source: LAPOP AmericasBarometer 2006–2023; poststratification from World Bank 2020 population data.

A7 Age-Period-Cohort Decomposition

I apply the Hierarchical Age-Period-Cohort (HAPC) model of Yang and Land (2008) as supplementary timing evidence, not as a decisive test of whether the main patterns are driven by period or cohort change. The decomposition is reported for seven outcomes. For each binary outcome, I fit separate models for men and women:

$$\Pr(y_i = 1) = \text{logit}^{-1}\big(\beta_0 + \sum_k \beta_k \cdot \mathbf{1}[\text{age}_i \in k] + \beta_c \cdot \text{college}_i + \alpha^{\text{period}}_{t[i]} + \alpha^{\text{cohort}}_{l[i]} + \alpha^{\text{country}}_{s[i]}\big)$$

where age enters as fixed coefficients (ten groups from 18–24 to 65+), period enters as LAPOP *survey round* (2006, 2008, 2010, 2012, 2014, 2017, 2019, 2023), and cohort enters as eleven five-year birth-cohort bins from pre-1950 to 1995+. Using survey rounds rather than raw field years matters because LAPOP interviews are staggered across adjacent calendar years: for example, 2007 interviews belong to the 2006 round, 2016–2017 interviews belong to the 2017 round, and 2018–2019 interviews belong to the 2019 round. Treating round rather than field year as the period dimension prevents those staggered interviews from being mistaken for distinct macro-political periods.

The central APC difficulty is the identification problem: age, period, and cohort are mechanically linked because *cohort* = *period* − *age*. In a conventional regression with fully unrestricted age, period, and cohort dummies, this exact linear dependency makes the design matrix singular, so there is no unique way to estimate three independent sets of coefficients from the data alone. Different APC strategies resolve this by imposing additional structure. Some do so through explicit coefficient constraints, some through matrix transformations such as the intrinsic estimator, and others through descriptive decompositions such as median polish. My approach is the hierarchical APC framework of Yang and Land (2008): period and cohort are modeled as crossed random effects rather than as fully unrestricted fixed-effect vectors.

The model is estimated separately for men and women so that the age, period, and cohort profiles can differ freely by sex. Country is included as an additional random intercept, which absorbs stable cross-national level differences while leaving the period component to summarize common movement across rounds. For plotting, the age coefficients are mean-centered within each sex-outcome model so that the age panel, like the period and cohort panels, can be read as a deviation around zero. The period and cohort panels show the estimated random intercepts (conditional modes) from the fitted model.

I emphasize that HAPC is a *descriptive* decomposition. It characterizes patterns of variation net of the other components, but does not identify causal effects. The partial-pooling assumption (period and cohort drawn from distributions centered at zero) is an identifying restriction, not a testable hypothesis. In practice, this also means that thin or weakly identified components are shrunk strongly toward zero. When a period or cohort variance is estimated at the boundary, the corresponding line in the plots is flat. That should be interpreted substantively as "little detectable residual variation in that dimension once the other two are taken into account," not as a plotting error.

In other words, the model does not solve APC by discovering a unique empirical partition hidden in the data. It solves it operationally by imposing a specific set of modeling choices: age enters in grouped bins; period and cohort enter as mean-zero random deviations; and those deviations are partially pooled toward zero. The resulting decomposition is therefore informative

and disciplined, but still model-dependent. That is the sense in which repeated cross-sections provide leverage for APC without making the age-period-cohort partition assumption-free.

The logic of the decomposition is straightforward. A period effect is variation shared across cohorts within the same survey round; a cohort effect is variation that follows birth cohorts across rounds; and an age effect is variation associated with respondents' stage in the life cycle regardless of birth cohort or survey round. The HAPC specification does not solve the APC identification problem by discovering a true causal partition. Rather, it imposes a structured, partially pooled decomposition that is useful for asking whether the raw cohort pattern in the main text is better summarized as a deep cohort replacement story or as a divergence concentrated in recent rounds.

Figures A29–A35 present the full APC decomposition for each of the seven outcomes included in this supplementary timing exercise, showing the age, period, and cohort coefficients separately for men and women.

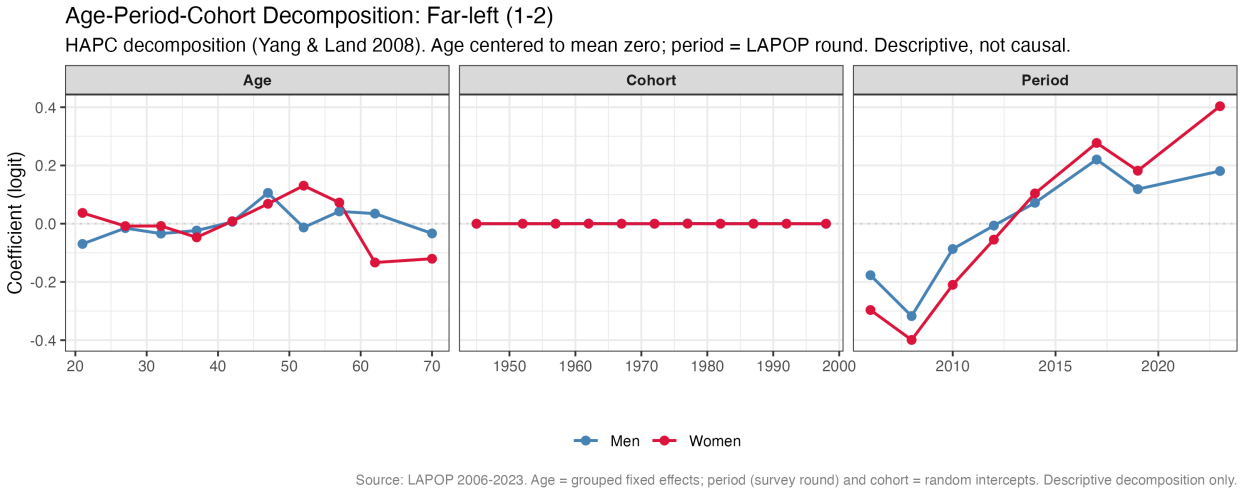

Figure A29: APC decomposition: Far-left identification (1–2). Coefficients on logit scale by age, cohort, and period, separately for men and women. Descriptive only.

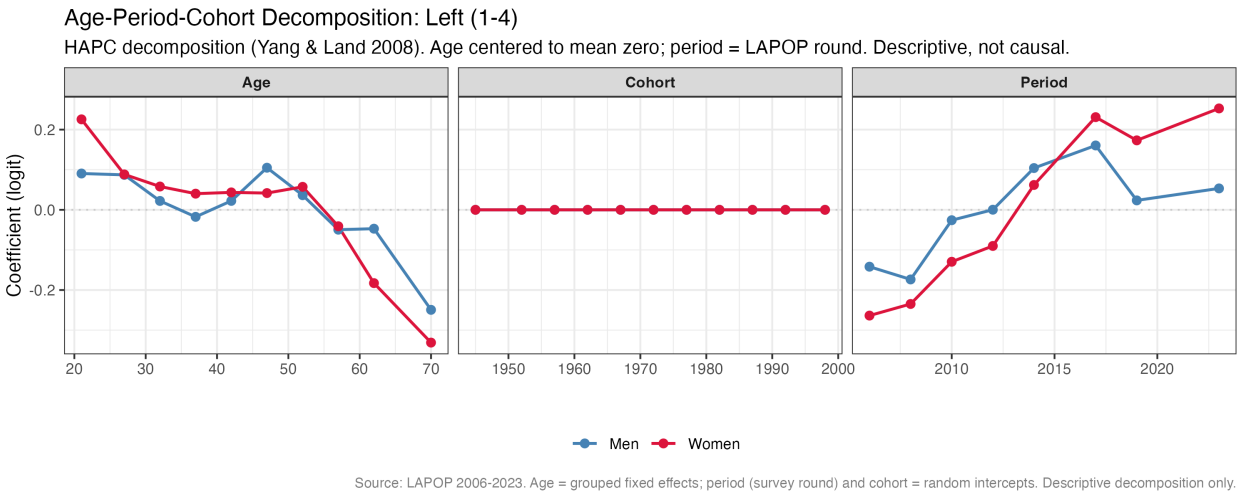

Figure A30: APC decomposition: Left identification (1–4).

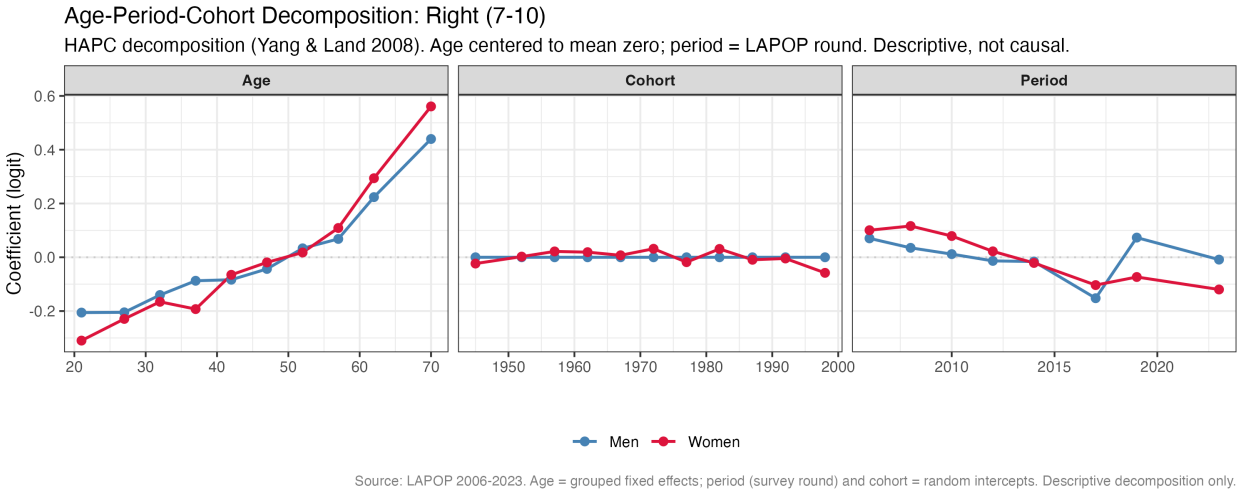

Figure A31: APC decomposition: Right identification (7–10).

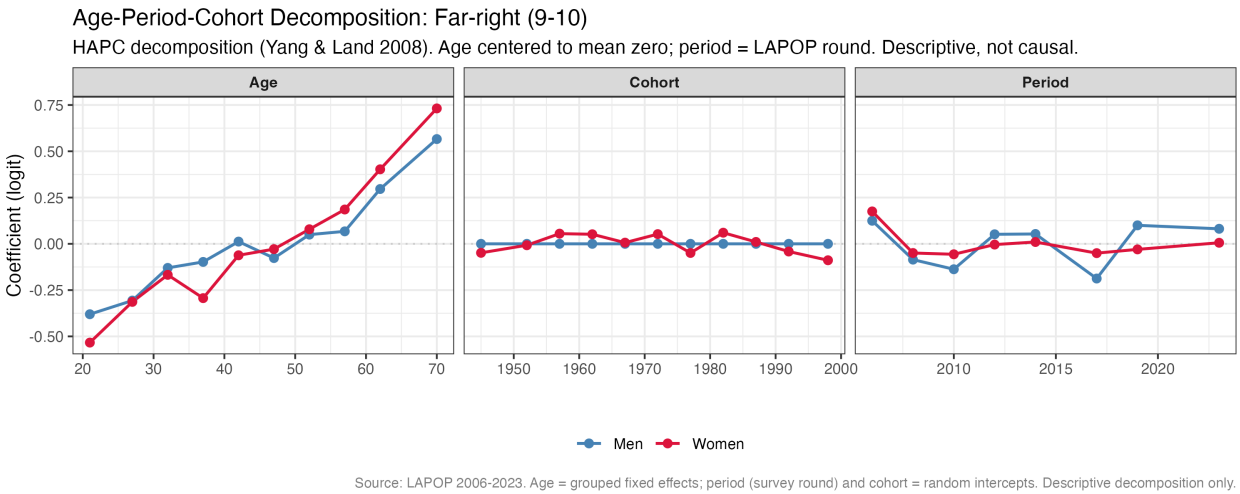

Figure A32: APC decomposition: Far-right identification (9–10).

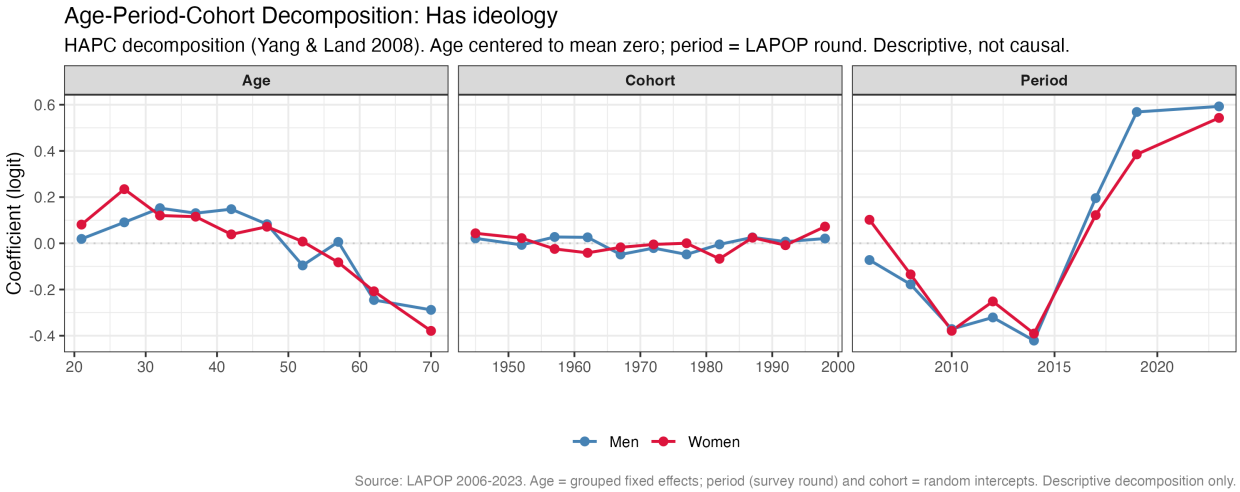

Figure A33: APC decomposition: Has ideological self-placement.

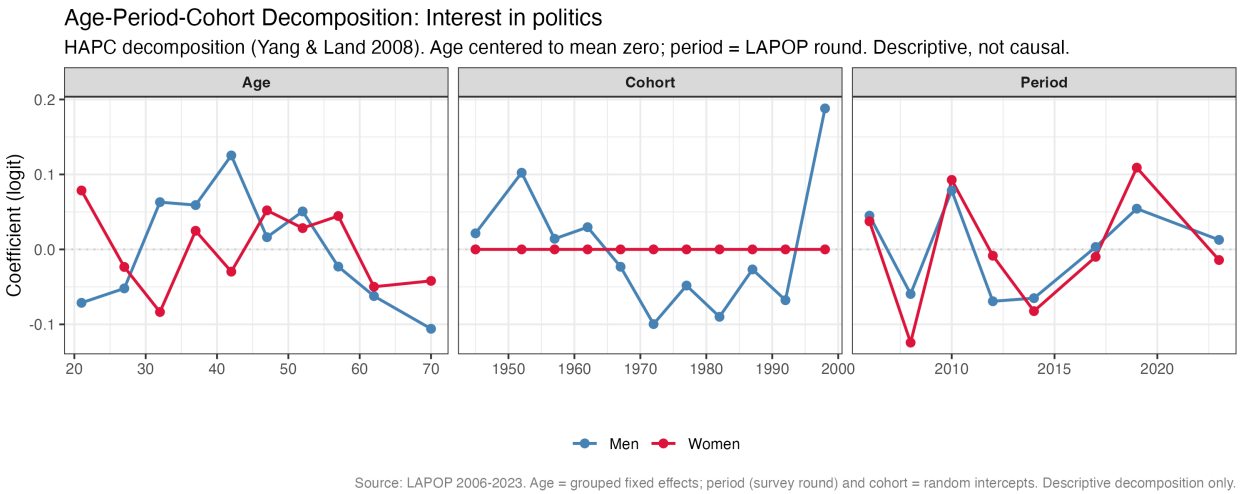

Figure A34: APC decomposition: Interest in politics.

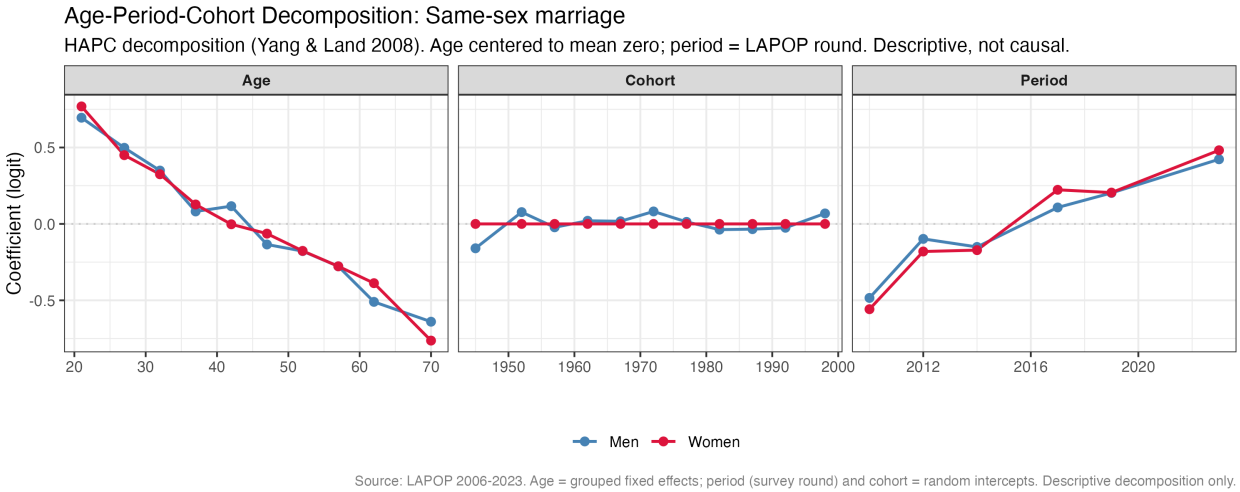

Figure A35: APC decomposition: Same-sex marriage approval.

References

Kastellec, Jonathan P., Jeffrey R. Lax and Justin Phillips. 2016. "Estimating State Public Opinion With Multi-Level Regression and Poststratification using R." *Working Paper, Princeton University* .

Yang, Yang and Kenneth C. Land. 2008. "Age-Period-Cohort Analysis of Repeated Cross-Section Surveys: Fixed or Random Effects?" *Sociological Methods & Research* 36(3):297–326.