Cross-Gender Social Ties and Gender Equality Across Countries and within Switzerland

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Abstract

This paper examines whether cross-gender social integration is associated with gender equality across countries. I use a country-level Cross-Gender Friendship Ratio (CGFR) constructed from global online friendship networks and merge it with cross-country outcomes from the World Economic Forum and related sources. In cross-sectional regressions with standard controls, higher CGFR is positively associated with gender parity, political empowerment, and women's representation in parliament and management, but negatively associated with perceived wage equality. These patterns are robust to alternative CGFR tie thresholds and influence diagnostics. A Swiss subnational exploration using the 1981 referendum on constitutional gender equality shows that historical support for gender equality is positively associated with contemporary cross-gender friendship patterns. Because the analysis is cross-sectional, the results are correlational rather than causal.

1 Introduction

Gender equality varies widely across countries even among economies with similar levels of income and education. This paper contributes to the literature by examining whether cross-gender social integration is associated with multiple dimensions of gender equality.

The key explanatory variable is a Cross-Gender Friendship Ratio (CGFR), constructed from large-scale friendship network data (Bailey et al., 2025). CGFR captures the extent to which social ties are gender-integrated. I relate it to five outcomes commonly used in cross-country comparisons: the Global Gender Gap Index, a wage-equality index, a political empowerment index, the share of women in national parliaments, and the share of women in management.

The main finding is that CGFR is positively correlated with gender parity and female representation outcomes, such as female representation in parliament and management, but negatively correlated with perceived wage equality. The paper does not claim causality and instead emphasizes robustness of partial correlations. To complement the cross-country evidence, I also present a Swiss subnational analysis using the 1981 referendum on constitutional gender equality.

The paper is organized as follows. Section 2 reviews the literature. Section 3 describes the data and measurement. Section 4 outlines the empirical strategy. Section 5 presents the cross-country results, followed by the Swiss regional analysis. The paper concludes with limitations and a conclusion.

2 Literature review

This paper sits at the intersection of research on gender norms, gender equality outcomes, and social networks. A central premise is that formal measures of gender equality reflect not only institutions and income, but also the extent to which women and men interact in everyday social life. Bailey et al. (2025) provide the most direct foundation for this argument by showing that cross-gender friendship rates vary systematically across countries and are positively associated with several measures of gender equality. (Bailey et al., 2025)

A related literature shows that gender norms are persistent and can have long-run effects on economic and political outcomes. In Switzerland, recent work uses the 1981 referendum on constitutional gender equality as a historical proxy for gender norms and finds that places with stronger support for equality continue to exhibit more women-founded startups today. (Kaiser and Mata, 2025) More broadly, work on gender norms and local politics shows that norms affect women's access to political office, representation, and participation in public life. (ALIGN Platform, 2023) These studies suggest that cross-gender friendship patterns may reflect deeper social norms rather than only contemporaneous policy environments.

Another strand examines gender gaps in political behavior and policy preferences. Funk and Gathmann show that women and men differ systematically in their policy preferences across a range of issue areas, even after controlling for socioeconomic characteristics. (Funk and Gathmann, 2015) A separate body of work on women's representation in parliaments and other decision-making institutions finds that representation is associated with more gender-sensitive policy agendas and broader changes in the treatment of women's interests. (Bessell, 2004; IDEA, 2024)

The relationship between social ties and labor-market outcomes is more mixed. Social

networks can improve access to information, contacts, and opportunity, but wages and pay equality are also shaped by occupational sorting, bargaining institutions, and firm-level practices. This helps interpret the negative correlation between CGFR and the wage equality index: if the WEF wage measure is based on perceptions rather than objective wage microdata, it may capture awareness of pay differences rather than observed pay parity. (World Economic Forum, 2025) As social mixing increases, people may become more informed about differences in pay or more willing to report them, even if actual wage structures do not improve immediately.

Taken together, these studies motivate the empirical analysis in this paper. They suggest that cross-gender social integration may be associated with greater gender parity, political empowerment, and representation, while its relationship to perceived wage equality may operate differently. The present paper contributes to this literature by offering cross-country evidence on a new social-network measure and by extending the analysis to a Swiss subnational setting where historical gender norms can be linked to contemporary regional patterns.

3 Data and Measurement

3.1 Country level CGFR and gender equality measures

The cross-country analysis combines a novel measure of cross-gender social integration with standard international indicators of gender equality and a set of country-level controls. The key explanatory variable is the Cross-Gender Friendship Ratio (CGFR), taken from the global friendship-network data assembled by Bailey et al. (Bailey et al., 2025). CGFR is constructed from online friendship ties and summarizes the extent to which social relationships within a country are gender-integrated rather than gender-segregated.

In this paper, CGFR is treated as a continuous measure of gender integration in friendship networks. Higher values indicate a larger share of cross-gender ties relative to same-gender ties, while lower values indicate more gender-homophilous social networks. The Bailey et al. data provide CGFR estimates under multiple tie-threshold definitions, ranging from the closest 5 ties to the closest 200 ties per user. This makes it possible to test whether the results depend on how narrowly or broadly friendship networks are defined. The baseline specification uses the 200-tie threshold, and robustness checks re-estimate the same model using alternative thresholds.

The dependent variables are five measures of gender equality. Three come from the World Economic Forum (World Economic Forum, 2025). The Global Gender Gap Index is a composite measure of gender parity across several dimensions and is widely used as a broad cross-country benchmark. The Wage Equality Index measures perceived wage equality for similar work, not directly observed pay gaps, and therefore captures attitudes or reported perceptions about compensation fairness. The Political Empowerment Index focuses on women's access to political power, leadership, and representation.

To complement these index-based outcomes, I also use two more direct representation measures. Women in parliament is measured as the share of seats held by women in national legislatures. Women in management is measured as the share of managerial positions held by women. These variables are useful because they capture visible and concrete forms of women's participation in political and economic leadership.

The cross-country regressions include a standard set of controls intended to capture development, labor-market structure, demographics, and broader social context. These controls are log GDP per capita, the female-to-male labor force participation ratio, an education parity index, urbanization, the female share of the population, religious affiliation, and eth-

nic fractionalization. Including these covariates helps ensure that the estimated association between CGFR and gender outcomes is not simply driven by differences in national income, demographic composition, or social heterogeneity.

3.2 Data overview

Figure 1–5 provide a first visual look at the relationship between cross-gender friendship and the main gender-equality outcomes used in the paper. The plots suggest a generally positive association between CGFR and broader gender parity, political empowerment, and women's representation in parliament and management, while the relationship with the perceived wage-equality index appears different. These figures are descriptive only, but they help preview the patterns examined more formally in the regression analysis below.

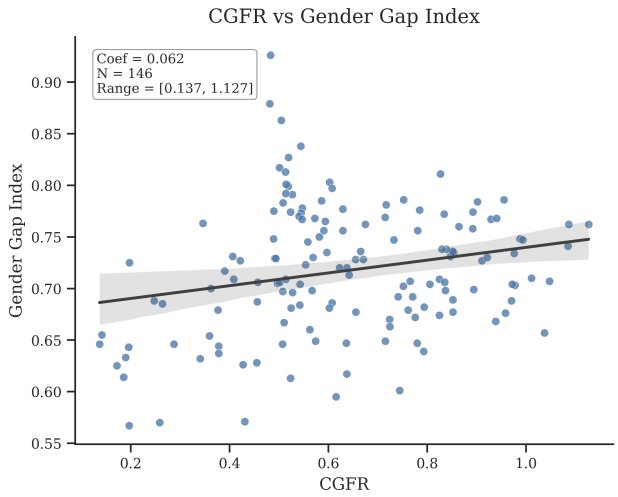

Figure 1: CGFR vs Gender Gap Index

Figure 1 shows a clear positive relationship between CGFR and the Global Gender Gap Index. Countries with more cross-gender friendship ties tend to have higher overall gender parity, which is consistent with the view that social integration across gender lines is associated with broader equality.

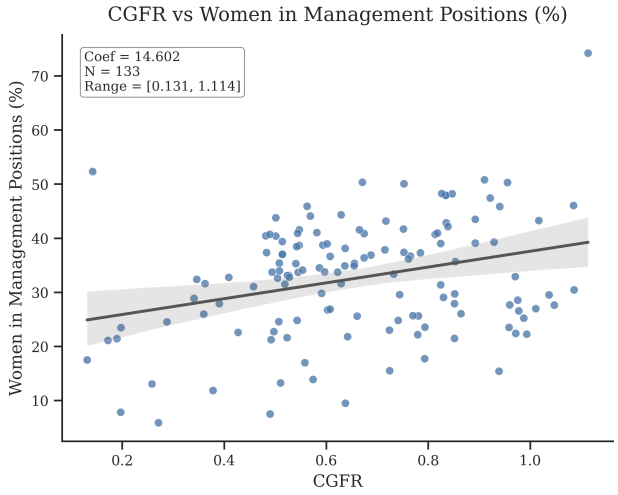

Figure 2: CGFR vs Share of Women in Management

Figure 2 shows a similarly positive pattern for women in management. Countries with higher CGFR generally have a larger female share in middle and upper management, suggesting that cross-gender social ties are more closely aligned with women's access to leadership positions than with purely formal equality measures.

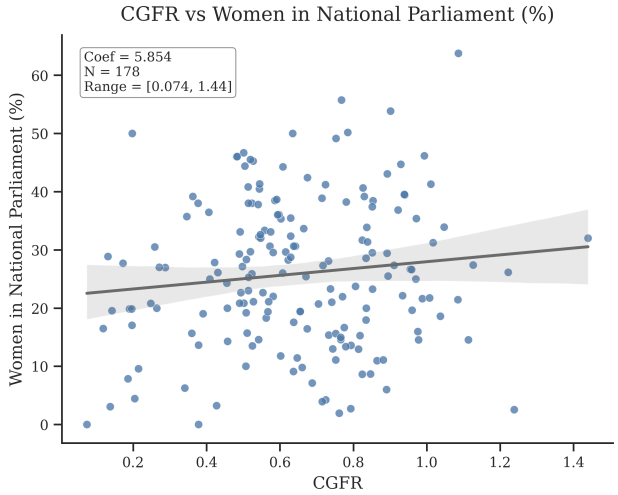

Figure 3: CGFR vs Share of Women in National Parliament

Figure 3 plots CGFR against the share of seats held by women in national parliaments. The association is again positive, indicating that countries with greater cross-gender social

mixing also tend to have more women in political office.

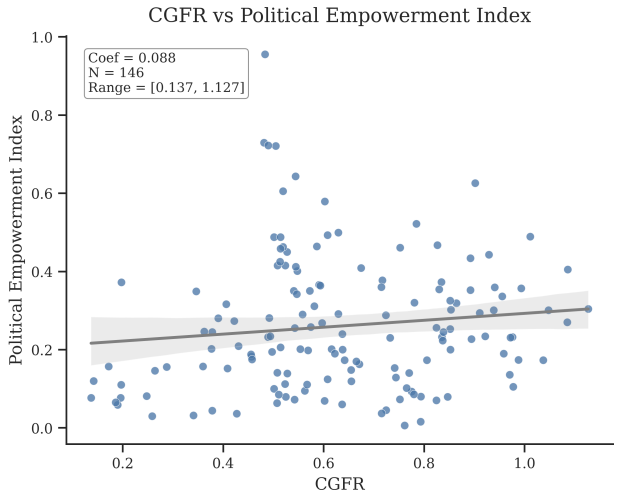

Figure 4: CGFR vs Political Empowerment

Figure 4 displays the relationship between CGFR and the Political Empowerment Index. The figure suggests that cross-gender friending is associated with stronger women's political empowerment, although the dispersion across countries is somewhat larger than for the overall gender gap index.

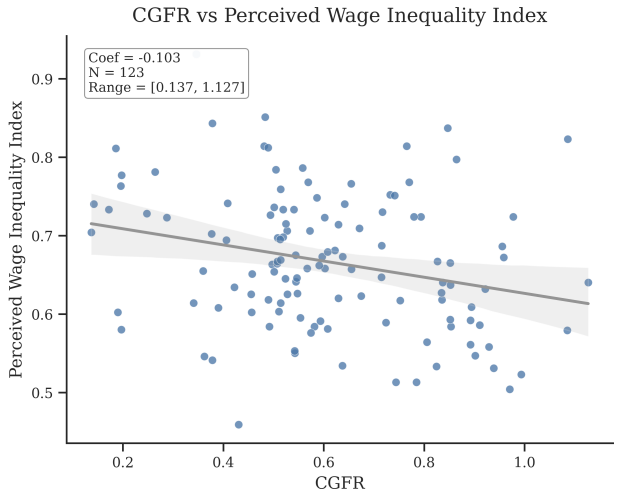

Figure 5: CGFR vs Perceived Wage Equality

Figure 5 shows a different pattern. The WEF wage equality index measures perceived

wage equality rather than directly observed wage inequality, so the negative association with CGFR should be interpreted cautiously. More cross-gender interaction may increase awareness of pay differences or make wage gaps more salient, even if it does not worsen actual pay equality. The figure therefore highlights a distinction between perceived wage fairness and broader representation outcomes.

4 Empirical Strategy

For the cross-country analysis, I estimate the following regression model:

$$Y_c = \alpha + \beta \, \mathrm{CGFR}_c + \gamma' X_c + \varepsilon_c, \tag{1}$$

where Y_c is a gender-equality outcome in country c, CGFR_c is the cross-gender friendship ratio, and X_c is a vector of country-level controls. The coefficient of interest is β, which captures the partial association between cross-gender social integration and the outcome after conditioning on observable national characteristics.

I estimate separate regressions for each of the five outcomes: the Global Gender Gap Index, the Perceived Wage Equality Index, the Political Empowerment Index, the share of women in national parliaments, and the share of women in management. All regressions include the same baseline control set: log GDP per capita, the female-to-male labor force participation ratio, an education parity index, urbanization, the female share of the population, religious affiliation, and ethnic fractionalization. Standard errors are heteroskedasticity-robust (HC1).

Because the analysis is cross-sectional, the coefficients should be interpreted as condi-

tional correlations rather than causal effects. This is especially important given that gender norms, institutions, and social structure may jointly influence both CGFR and the outcomes of interest. The empirical goal is therefore to document whether cross-gender friendship is systematically related to gender equality across countries, not to identify a treatment effect.

5 Results

5.1 Main results

Table 1 reports the coefficient on CGFR (200) from five separate regressions, each controlling for the full covariate set. The number of observations varies across columns because not all outcome and control variables are available for every country. In particular, the perceived wage equality index is observed for a narrower sample of 123 observations, which yields 115 observations in the regression once the full set of controls is included.

Table 1: Cross-country association between CGFR and gender-equality outcomes

Outcome	CGFR coefficient (s.e.)	N	R^2
Global Gender Gap Index (WEF)	0.0597*** (0.0168)	131	0.641
Perceived Wage Equality Index (WEF)	-0.1758*** (0.0418)	115	0.324
Political Empowerment Index (WEF)	0.1859*** (0.0654)	131	0.235
Women in National Parliament (percent)	15.1885** (6.3097)	131	0.175
Women in Management (percent)	17.599* (9.3227)	131	0.238

Notes: Each row corresponds to a separate regression. The reported number is the coefficient on `cgfr_200` with heteroskedasticity-robust standard errors in parentheses. All regressions include `log_gdp_pc`, labor force participation, education parity, urbanization, female population share, and religious and ethnic fractionalization. Stars denote significance levels (* 10%, ** 5%, *** 1%).

The cross-country results show a consistent positive association between CGFR and several dimensions of gender equality, including the overall Gender Gap Index, political empowerment, women's representation in parliament, and women's representation in management.

These patterns suggest that more cross-gender social integration is associated with broader inclusion of women in public and organizational life. The relationship is especially strong for representation outcomes, which are plausibly linked to informal access, legitimacy, and network-based opportunities.

The wage-equality result is the main exception. Because the WEF measure captures perceived wage equality rather than directly observed wage gaps, the negative coefficient may reflect greater awareness of unequal pay in more socially integrated settings rather than worse actual pay equality. This makes the result substantively different from the representation outcomes rather than contradictory. It suggests that cross-gender friendship may be more closely connected to political and organizational inclusion than to labor-market pay perceptions.

Overall, the findings are robust across alternative CGFR thresholds, which strengthens the interpretation that the results reflect a genuine cross-country pattern rather than a particular construction choice. The evidence is therefore consistent with a broader social-norms interpretation: countries with more cross-gender friendship ties tend to exhibit narrower gender gaps in domains where social integration and representation matter most.

5.2 Interpretation of the results

The cross-country results suggest a broad positive association between cross-gender social integration and gender equality. Higher CGFR is linked to better scores on the Global Gender Gap Index, stronger political empowerment, and greater female representation in both parliament and management. This pattern is consistent with work showing that gender norms and social ties shape women's public and economic opportunities, rather than outcomes being driven only by income or formal institutions. (Bailey et al., 2025; ALIGN

Platform, 2023; IDEA, 2024)

The representation results are the clearest. CGFR is positively associated with women's seats in parliament and women's presence in management, which fits the idea that mixed-gender networks can reduce social distance, expand information flows, and improve access to leadership roles. This is in line with evidence that women's representation is shaped by informal norms and institutional environments, not just formal rules. (Bessell, 2004; IDEA, 2024)

The positive association with the Political Empowerment Index reinforces this reading, since that index captures women's access to formal political influence rather than just head counts. The stronger overall Gender Gap Index result suggests the pattern is not limited to a single domain, but reflects a wider cross-country regularity. (World Economic Forum, 2025)

The wage-equality result requires a different interpretation. Because the WEF measure captures perceived wage equality rather than observed wage gaps, the negative coefficient may reflect greater awareness of pay differences in more socially integrated settings. In that sense, cross-gender contact may make wage gaps more visible before it changes underlying pay structures. (World Economic Forum, 2025)

Overall, the results point to a social-norms interpretation: countries with more gender-integrated friendship networks tend to have more women in public and organizational life, while the wage-equality result likely reflects perceptions rather than actual pay parity. The robustness across CGFR thresholds strengthens the view that this is a genuine cross-country pattern rather than a construction artifact. (Bailey et al., 2025)

5.3 Robustness to CGFR tie-threshold definition

A concern is that CGFR could be sensitive to the tie threshold used in construction. Figure 6 plots the standardized coefficient on CGFR in the Gender Gap Index regression as the tie threshold varies. The association remains positive and statistically distinguishable from zero across thresholds. This suggests that the finding is not an artifact of a particular tie definition. This is important because the friendship measure can be constructed using different numbers of closest ties, and a stable pattern across thresholds indicates that the results are not driven by one arbitrary cut-off. The consistency across thresholds supports the view that the cross-country pattern is genuinely tied to cross-gender social integration.

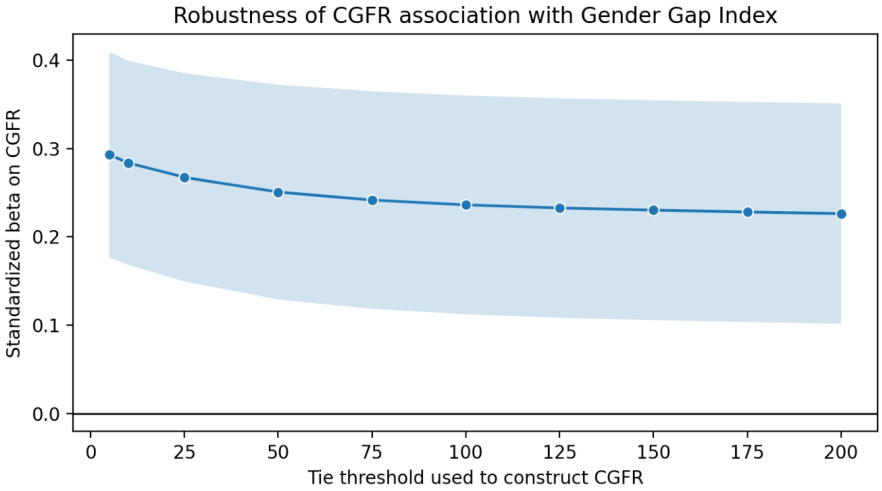

Figure 6: Robustness of CGFR association with the Gender Gap Index across tie thresholds

6 Swiss regional exploration

To assess whether the cross-country relationship reflects a broader historical pattern rather than only contemporary national institutions, I complement the country-level analysis with a subnational historical analysis in Switzerland. Switzerland is useful for this purpose for three

reasons. First, it provides substantial regional variation within a single national institutional setting. Second, the 14 June 1981 federal referendum on equal rights for men and women provides a historically meaningful measure of local support for gender equality. Third, the referendum predates the contemporary social-network measure, reducing concerns that the observed association simply reflects reverse causality from current cross-gender friendship patterns to measured gender attitudes.

6.1 Data and Measures

The Swiss analysis links contemporary CGFR at the GADM2 level to district-level support for the 1981 equal-rights referendum. The referendum asked voters to approve a constitutional amendment on equal rights for men and women, and the measure was accepted nationally with 60.27 percent yes votes.[1] I use the district yes-vote share as a historical proxy for regional support for gender equality. Because Switzerland is divided into major language regions that capture persistent cultural and historical differences, the empirical specifications below control for language-region fixed effects. The language-region coding follows the Swiss Federal Statistical Office's statistical language-region concept, which demarcates areas where the majority of the population speaks German, French, Italian, or Romansh according to federal census information.[2]

Figure 7 maps contemporary CGFR across Swiss GADM2 regions using the 200-tie threshold. The figure shows that cross-gender friendship varies meaningfully within Switzerland, despite the fact that all regions share the same national legal and institutional context.

[1]The referendum data come from Swissvotes, vote 306.00, "Artikel zur Gleichstellung von Mann und Frau," available at `https://swissvotes.ch/vote/306.00`. See also the official Federal Chancellery vote record for vote 306 at `https://www.bk.admin.ch/ch/d/pore/va/19810614/can306.html`.

[2]See the Swiss Federal Statistical Office documentation on statistical language regions, available at `https://www.swissstats.bfs.admin.ch`.

This subnational variation motivates the district-level analysis that follows.

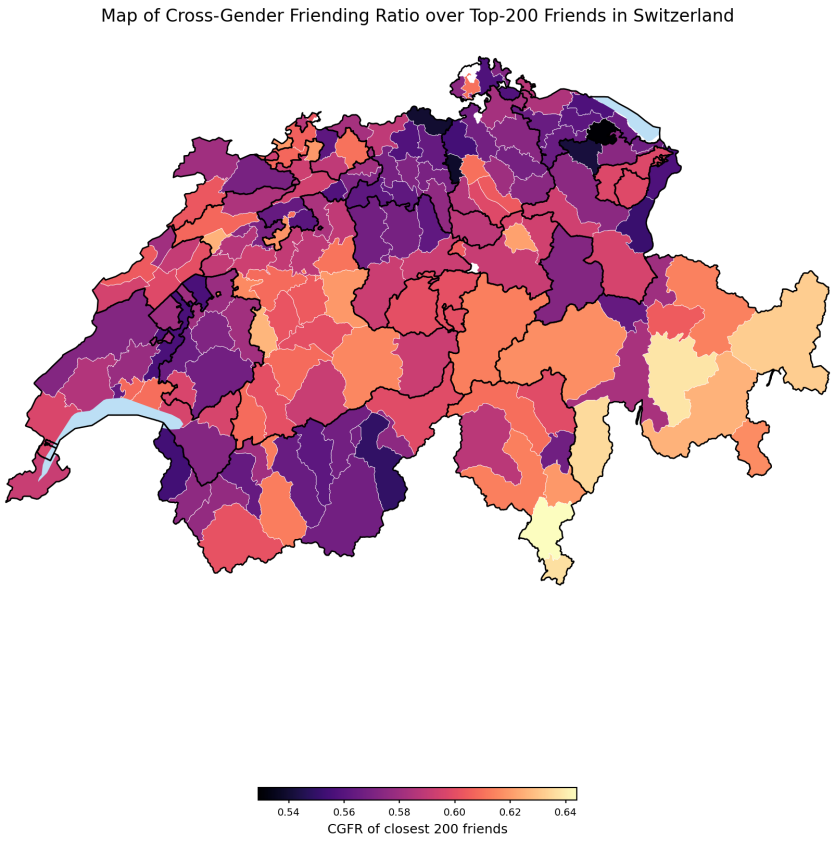

Figure 7: Cross-gender friendship across Swiss GADM2 regions

Notes: The figure maps the cross-gender friendship ratio measured at the 200-tie threshold across Swiss GADM2 regions. Darker shading indicates higher CGFR values. Cantonal boundaries are shown for geographic reference.

Figure 8 maps the historical yes-vote share in the 1981 equal-rights referendum. The distribution of support is geographically structured, with substantial variation across districts. This variation is useful analytically because it allows the Swiss exercise to compare regions exposed to the same national institutional environment but characterized by different historical levels of support for gender equality.

Before turning to the regression framework, Figure 9 presents the raw bivariate relation-

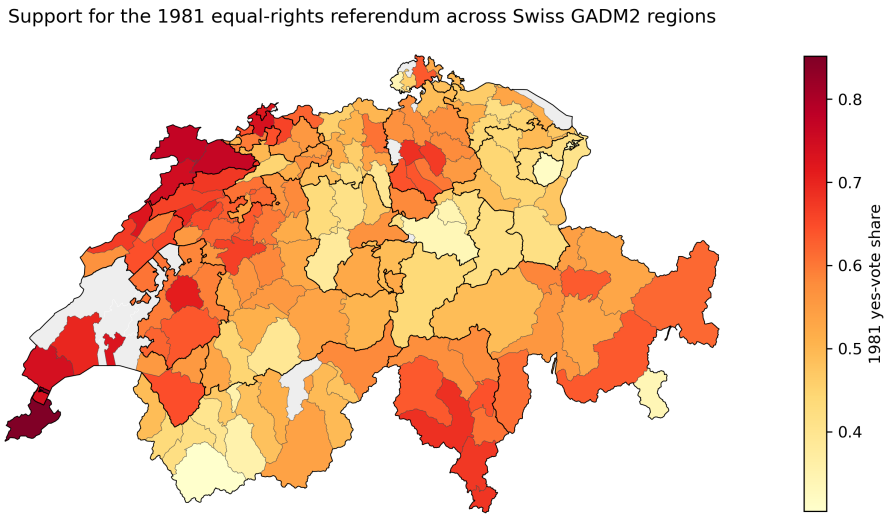

Figure 8: Support for the 1981 equal-rights referendum across Swiss GADM2 regions

Notes: The figure maps the district yes-vote share in the 14 June 1981 federal referendum on equal rights for men and women. The map uses matched GADM2 regions from the Swiss regional analysis; a small number of regions were excluded because boundary changes prevented a reliable match. Cantonal boundaries are shown for geographic reference.

ship between the two central variables. The simple correlation between the 1981 yes-vote share and contemporary CGFR(200) is positive but modest, with Pearson's $r = 0.176$ across the 157 matched Swiss GADM2 regions. This descriptive pattern is consistent with the main argument, but it should not be interpreted as the main estimate because it does not adjust for language-region differences or regional scale. The empirical strategy below therefore estimates the association using language-region fixed effects and the log number of registered voters, and reports both unweighted and registered-voter-weighted specifications.

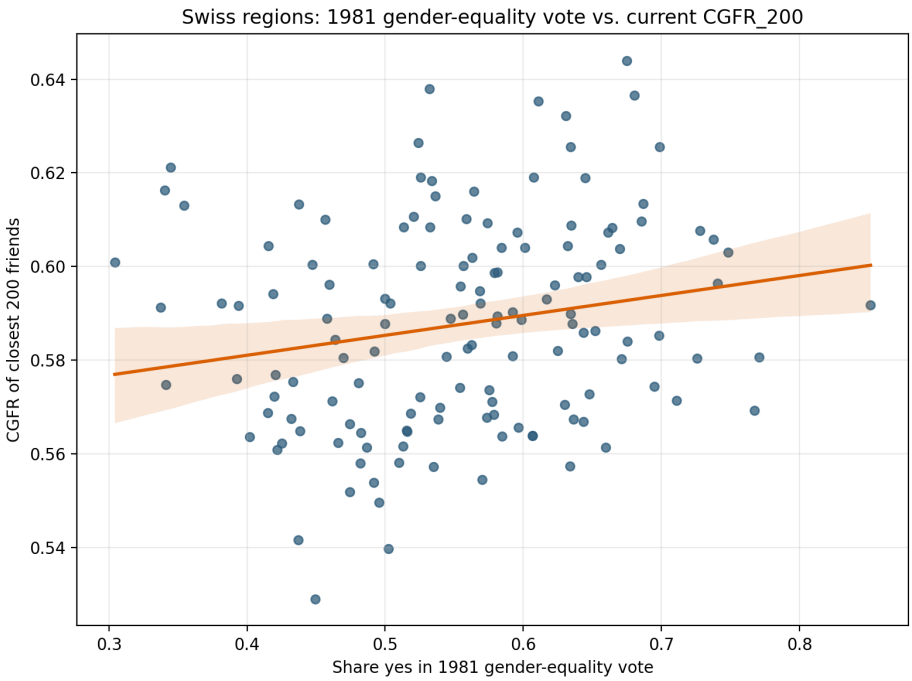

Figure 9: Raw association between the 1981 equal-rights vote and contemporary CGFR

Notes: Each point is a matched Swiss GADM2 region. The x-axis reports the district yes-vote share in the 1981 equal-rights referendum, and the y-axis reports CGFR measured at the 200-tie threshold. Marker size is proportional to the number of registered voters. The fitted line is the unadjusted linear relationship. Pearson's $r = 0.176$; $N = 157$.

6.2 Empirical Strategy

The main estimating equation is:

$$CGFR_r = \alpha + \beta VoteYes_{r,1981} + \gamma \log(RegisteredVoters_{r,1981}) + \lambda_{\ell(r)} + \varepsilon_r, \tag{2}$$

where $CGFR_r$ is the cross-gender friendship ratio in region r, $VoteYes_{r,1981}$ is the yes-vote share in the 1981 equal-rights referendum, $RegisteredVoters_{r,1981}$ is the number of registered voters in the region, and $\lambda_{\ell(r)}$ denotes language-region fixed effects. I report both unweighted OLS estimates and estimates weighted by the number of registered voters. The weighting

scheme gives more influence to larger districts, while the unweighted estimates show whether the relationship is present across regions regardless of size.

Language-region fixed effects are included to account for persistent cultural and historical differences across German-, French-, Italian-, and mixed-language regions. Canton fixed effects are not included because they would absorb much of the relevant cross-regional variation and because several cantons contribute only a small number of matched district observations. As in the cross-country analysis, the Swiss estimates should be interpreted as descriptive correlations rather than causal effects.

6.3 Results

Table 2 reports the association between the historical yes-vote share and contemporary CGFR. The relationship is positive in both the unweighted and weighted specifications, and it remains positive after adding language-region fixed effects and district size controls. The pattern indicates that regions with stronger historical support for gender equality tend to have more cross-gender friendship ties today. That result is consistent with the interpretation that social integration and egalitarian norms are related and may persist over time.

Table 2: Swiss district-level association between the 1981 equal-rights vote and cross-gender friendship

	(1) Raw	(2) + Size	(3) + Language FE	(4) Preferred
Panel A: Unweighted OLS				
1981 yes-vote share × 0.10	0.0037**	0.0053***	0.0025	0.0038**
	(0.0016)	(0.0016)	(0.0015)	(0.0017)
Log registered voters		-0.0055***		-0.0033
		(0.0019)		(0.0021)
Language fixed effects	No	No	Yes	Yes
Registered-voter weights	No	No	No	No
R^2	0.031	0.078	0.154	0.168
Observations	157	157	157	157
Panel B: Registered-voter weighted OLS				
1981 yes-vote share × 0.10	0.0066***	0.0051**	0.0070***	0.0037**
	(0.0019)	(0.0020)	(0.0019)	(0.0018)
Log registered voters		0.0028		0.0050**
		(0.0023)		(0.0023)
Language fixed effects	No	No	Yes	Yes
Registered-voter weights	Yes	Yes	Yes	Yes
R^2	0.134	0.147	0.292	0.327
Observations	157	157	157	157

Notes: Dependent variable is CGFR (200-tie threshold). The key regressor is the district yes-vote share in the 14 June 1981 referendum on equal rights for men and women, scaled by 10 percentage points. Robust HC1 standard errors in parentheses. Language fixed effects distinguish German, French, Italian, and mixed/bilingual regions. The preferred specification includes language fixed effects and log registered voters. I omit canton fixed effects because they absorb much of the relevant variation and several cantons have few matched districts. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

6.4 Discussion: Swiss evidence

The Swiss results provide a useful subnational exploration of the main cross-country findings. Switzerland combines strong national institutions with substantial regional variation in language, history, and social norms. The 1981 referendum on constitutional gender equality is a useful proxy for local support for women's rights, and the positive association between contemporary CGFR and referendum support suggests that cross-gender social integration may reflect persistent differences in gender norms. (Kaiser and Mata, 2025)

Regions with higher CGFR may simply be places where interaction between women and men is less constrained by social segregation. More frequent cross-gender contact can increase exposure to different preferences and views, making equality-oriented norms more legitimate and traditional gender roles less salient. The Swiss evidence is therefore consistent with the idea that social integration and egalitarian attitudes reinforce one another over time. (Bailey et al., 2025; ALIGN Platform, 2023)

The historical timing also matters. Because the 1981 vote predates the friendship-network data by decades, the relationship is unlikely to reflect reverse causality from current friendship patterns to the referendum result. Instead, it points to persistence in regional gender culture, consistent with evidence that gender norms continue to shape women-related outcomes over time. (Kaiser and Mata, 2025)

The Swiss regression should still not be read as causal evidence. Regions that supported equality more strongly may also differ in urbanization, religion, migration, or education. The value of the Swiss exercise is therefore descriptive: it shows that the cross-country pattern also appears within a single national setting and aligns with a historically grounded measure of gender norms. (Funk and Gathmann, 2015)

Overall, the Swiss case supports the broader interpretation of the paper: cross-gender friendships appear to be part of a wider ecosystem of gender integration, not just an isolated social metric. The cross-country results, the Swiss referendum correlation, and the tie-threshold robustness checks all point in the same direction.

6.5 Robustness to CGFR tie-threshold

Figure 10 shows that the Swiss regional association is robust to alternative CGFR tie thresholds. The standardized coefficient on the 1981 equal-rights yes-vote share remains positive across all thresholds in both the unweighted and registered-voter-weighted specifications. The association is largest at lower and intermediate tie thresholds and declines gradually as the CGFR threshold increases. Thus, the main CGFR(200) specification should be interpreted as a conservative version of the Swiss regional result.

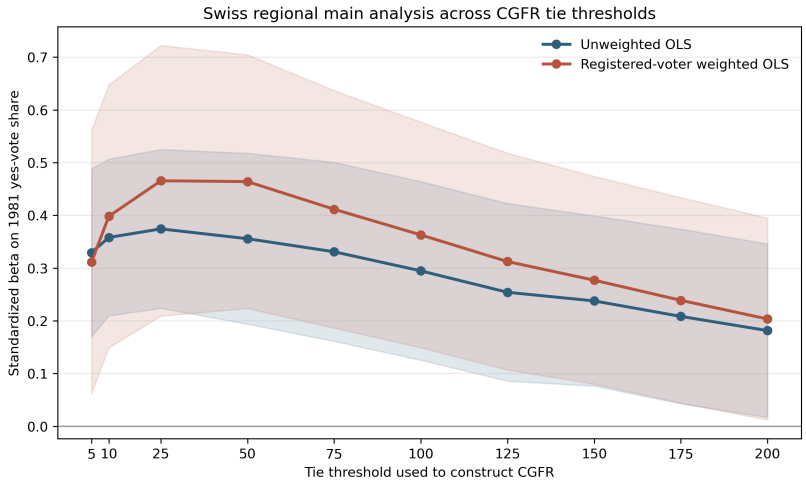

Figure 10: Robustness of the Swiss regional association across CGFR tie thresholds

Notes: The figure reports standardized coefficients on the 1981 equal-rights yes-vote share from the preferred Swiss regional specification. The dependent variable is CGFR measured at the tie threshold indicated on the x-axis. All models control for language fixed effects and the log number of registered voters. Shaded bands show robust 95 percent confidence intervals.

7 Limitations

This paper is explicitly descriptive and correlational. The main limitation is that the cross-country regressions do not identify causal effects, since CGFR may be correlated with unobserved factors such as gender norms, institutional quality, historical development, or cultural openness. Even with the included controls, the estimated associations should therefore be interpreted as partial correlations rather than causal estimates.

A second limitation is reverse causality. In more gender-equal societies, cross-gender friendships may form more easily, so the observed relationship may reflect gender equality as much as it reflects gender integration. The Swiss historical exploration helps address this concern descriptively by linking contemporary CGFR to a historical referendum outcome, but it still does not establish a causal mechanism.

A third limitation concerns measurement. CGFR is constructed from online friendship networks, which may not perfectly represent offline social relations. Differences in platform usage, internet penetration, age composition, and digital behavior across countries could affect the measure. Likewise, the WEF wage equality index captures perceived wage equality rather than directly observed wage gaps, which means the negative association with CGFR should be interpreted cautiously.

Finally, the Swiss regional analysis is also descriptive. Although the historical referendum predates the CGFR measure and therefore provides useful insights, it does not isolate an exogenous source of variation in gender norms or social integration. The value of the Swiss exercise is therefore in showing that the main cross-country pattern also appears within a single country and historical context, not in establishing a causal effect.

8 Conclusion

This paper documents a robust cross-country association between a novel measure of cross-gender social integration and multiple dimensions of gender equality. Countries with higher CGFR tend to exhibit greater overall gender parity, stronger female representation in politics and management, and higher political empowerment. The main exception is the WEF wage equality index, which is negatively associated with CGFR and is best interpreted as reflecting perceived wage equality rather than directly observed pay gaps.

The Swiss regional insights strengthens the descriptive interpretation of the cross-country results. Within Switzerland, regions with stronger historical support for gender equality in the 1981 referendum tend to exhibit higher contemporary cross-gender friendship levels. This suggests that cross-gender social integration may be part of a broader and persistent pattern of gender norms rather than a purely contemporaneous social artifact.

Taken together, the findings are consistent with the idea that cross-gender social ties are closely linked to broader gender integration, especially in domains such as female political and managerial representation, leadership, and political empowerment. The paper does not claim causality, but it does show that cross-gender friendship is a meaningful correlate of gender equality across countries and within Switzerland.

Future research could build on this work by using panel data, subnational variation in more countries, or plausibly exogenous shocks to social interaction to identify causal mechanisms more directly.

Appendix: Summary statistics

Table 3: Summary statistics for cross-country analysis

	Count	Mean	Std	Min	25%	50%	75%	Max
Global Gender Gap Index	146	0.72	0.06	0.57	0.68	0.71	0.76	0.93
Wage Equality Index	123	0.67	0.09	0.46	0.60	0.66	0.73	0.93
Political Empowerment Index	146	0.26	0.17	0.01	0.14	0.23	0.36	0.95
Women in National Parliament share	178	25.90	12.59	0.00	16.52	25.95	35.37	63.75
Women in Management share	133	32.61	10.72	5.89	25.48	33.36	39.39	74.19
`CGFR (200)`	180	0.65	0.25	0.07	0.51	0.63	0.83	1.44
`Log(GDP p.C.)`	175	8.88	1.45	5.39	7.80	8.84	10.10	11.83
Labor participation (female/male)	146	0.74	0.17	0.23	0.68	0.79	0.87	0.99
Educational Attainment Index	146	0.97	0.06	0.65	0.97	0.99	1.00	1.00
Urbanization share	178	60.19	22.62	13.88	42.62	60.24	79.19	100.00
Female Population share	178	49.95	3.02	28.72	49.68	50.33	51.10	53.99
Religious Affiliation share	178	0.90	0.14	0.27	0.86	0.96	1.00	1.00
Ethnic Fragmentation	150	0.48	0.26	0.00	0.25	0.50	0.68	1.00

Table 4: Summary statistics for the Swiss district-level analysis

	Count	Mean	Std	Min	25%	50%	75%	Max
CGFR, 200-tie threshold	157	0.587	0.022	0.529	0.570	0.588	0.603	0.644
1981 yes-vote share	157	0.551	0.104	0.304	0.481	0.555	0.630	0.852
Registered voters	157	23,997	33,144	1,743	8,366	15,925	25,949	294,984
Log registered voters	157	9.638	0.908	7.463	9.032	9.676	10.164	12.595
Yes votes	157	4,861	8,260	239	1,369	2,856	4,779	69,838
Estimated valid votes	157	8,099	11,614	431	2,463	5,152	8,948	101,862

Notes: The sample consists of matched Swiss GADM2 districts used in the 1981 referendum analysis. Vote shares are based on the 14 June 1981 federal vote on equal rights for men and women. Estimated valid votes are computed as yes votes divided by the reported yes-vote share. Registered voters are used both as a region-size control and as weights in the weighted specifications.

Table 5: Cross-country regression results: baseline specification

Variable	Gender gap index	Wage equality index	Political empowerment index	Women in parliament (%)	Women managers (%)
CGFR (200 tie threshold)	0.06***	-0.176***	0.186***	15.189**	17.599*
	(0.017)	(0.042)	(0.065)	(6.31)	(9.323)
Log GDP per capita	0.012***	-0.027**	0.051***	2.558**	1.857
	(0.004)	(0.012)	(0.015)	(1.283)	(1.386)
Labor participation index	0.132***	0.296***	0.021	0.333	4.414
	(0.026)	(0.061)	(0.1)	(8.302)	(10.336)
Education gender parity index	0.359***	0.552***	-0.173	-13.628	36.909
	(0.046)	(0.182)	(0.185)	(18.471)	(22.725)
Urbanization rate	0.0	-0.0	-0.0	-0.001	0.075
	(0.0)	(0.001)	(0.001)	(0.072)	(0.075)
Female population share	0.002*	-0.014***	0.009*	0.59	1.636***
	(0.001)	(0.003)	(0.005)	(0.698)	(0.496)
Religious fractionalization	0.007	0.03	-0.047	-5.056	9.628
	(0.032)	(0.043)	(0.12)	(6.565)	(9.308)
Ethnic fractionalization	-0.013	-0.057	-0.023	-4.657	0.863
	(0.017)	(0.039)	(0.065)	(5.561)	(6.486)
Constant	0.004	0.965***	-0.564*	-14.91	-135.274***
	(0.089)	(0.194)	(0.34)	(35.201)	(36.401)
N	131	115	131	131	131
R2	0.641	0.324	0.235	0.175	0.238

Notes: Each column reports an OLS regression of the listed outcome on $cgfr\_200$ and controls. Robust (HC1) standard errors are in parentheses. Significance: $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

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