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Descriptive Finding

The impact of reducing welfare obstacles on union formation and dissolution among the unemployed: Evidence from the Finnish Basic Income Experiment

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The impact of reducing welfare obstacles on union formation and dissolution among the unemployed: Evidence from the Finnish Basic Income Experiment

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Abstract

BACKGROUND

Enhancing the employment prospects of the long-term unemployed is a widely shared objective of many welfare reforms. However, welfare reforms may have unintended consequences for family dynamics. Previous guaranteed income experiments in North America led to a debate on their negative impact on marital outcomes. This question has not yet been tested in a Nordic welfare state.

OBJECTIVE

This study evaluates the Finnish Basic Income Experiment (FBIE), focusing on its impact on union formation and dissolution. The FBIE was the first nationwide, non-voluntary randomized experiment on basic income in an advanced economy, conducted from 2017 to 2018. Accordingly, we explore whether reducing administrative barriers, conditionality, and welfare traps among the unemployed affect union dynamics in Finland. We focus on both marriages and cohabiting unions.

METHODS

We utilize comprehensive administrative register-based data for both the participants of the experiment (N = 1,999) and their control group (N = 173,042). We estimate the impact of experiment participation using linear probability and Cox proportional hazards models. Our analyses cover the experimental period (2017–2018) and the post-experimental period (2019–2020).

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RESULTS

We find no evidence that the FBIE altered union formation or dissolution across measures of any union, marriage, cohabitation, or associated transitions.

CONTRIBUTION

Modest welfare reforms in advanced welfare systems seem to not alter family formation or dissolution patterns.

1. Introduction

Social policies designed to reduce poverty and improve employment may also influence family formation and dissolution. Income transfers and changes in benefit rules can affect household stability by altering economic security, autonomy, and stress. Earlier guaranteed-income experiments in the United States and Canada suggested potential impacts on marital stability (Hannan et al. 1977, 1978; Groeneveld, Tuma, and Hannan 1980; Gonalons-Pons and Calnitsky 2022), though interpretations remain contested (Cain and Wissoker 1990). Canada's Mincome project found increased divorce discussions but little change in actual separations (Gonalons-Pons and Calnitsky 2022). By contrast, evidence from universal transfers indicates that cash benefits can encourage fertility (Milligan 2005; Cowan and Douds 2022; González and Trommlerová 2023; Yonzan, Timilsina, and Kelly 2024). Other welfare reforms in the United States and Canada showed limited or heterogeneous effects (Grogger and Karoly 2009; Tach and Edin 2017; Cancian and Meyer 2014). These findings underscore the importance of studying family-related consequences of welfare reforms.

We study how union dynamics respond to changes in welfare obstacles, namely a randomized policy experiment that reduced administrative barriers, conditionality, and welfare traps. We examine whether a recent reform in Finland affected union dynamics among unemployed individuals. The Finnish Basic Income Experiment (FBIE) of 2017–2018 was the first nationwide, mandatory, randomized trial of basic income (BI) in an advanced welfare state. The experiment removed job-search obligations, eliminated benefit sanctions, and simplified administration, while allowing BI recipients to retain additional earnings (Hämäläinen and Verho 2022; Verho, Hämäläinen, and Kanninen 2022).

Two mechanisms from economic theory highlight the link between resources and family outcomes. The income effect posits that higher income and economic stability can enhance attractiveness in partner selection and support transitions to marriage (Oppenheimer 1988; Kalmijn 2011; Gonalons-Pons and Schwartz 2017). Conversely, financial stress is associated with conflict and dissolution (Conger et al. 1994, Conger,

Conger, and Martin 2010). The unconditional and predictable monthly payment may reduce stress by eliminating reporting obligations, sanctions, and stigma, thereby strengthening perceived autonomy and psychological security. Reduced bureaucratic friction may also free cognitive resources for relationship investment. However, greater stability may also increase autonomy and reduce dependence on a partner's income. Accordingly, the independence effect posits that reduced economic uncertainty and enhanced individual freedom may increase the possibilities to end strained unions. This may be especially relevant for women whose incomes remain lower than men's, even in Finland's dual-earner context where both partners' resources matter for union formation (Jalovaara 2012).

We use Finnish administrative data that cover all experiment participants and a large control group of unemployed individuals. These data track family structure before, during, and after the experiment. We examine whether union dynamics (formation and dissolution of cohabiting and married unions) differed between treatment and control groups, and whether patterns varied across genders.

Our study contributes to the ongoing policy debate on the impact of welfare reforms on family outcomes by providing contemporary evidence from the FBIE. The experiment presents a unique opportunity to examine the unintended contributions of policy changes, in our case reducing administrative barriers among the unemployed. Most prior evidence on welfare and family structure comes from North America, and little is known about how similar reforms operate in contexts with comprehensive minimum-income schemes. The FBIE thus enables investigating whether lowering welfare obstacles translates into changes in cohabitation, marriage, or dissolution in a Nordic setting. However, these findings should be interpreted considering three limitations: the generous baseline welfare-state context, the absence of an unconditional income supplement, and the fixed two-year horizon, as well as the restriction of the sample to the unemployed. Within these boundaries, our findings have implications for the design of social welfare policies in developed countries, supporting knowledge-based policymaking regarding the relationship between economic security and family outcomes.

2. The Finnish Basic Income Experiment

The Finnish Basic Income Experiment (FBIE) was conducted in 2017–2018. It involved 2,000 participants aged 25–58 receiving flat-rate minimum unemployment benefits in the treatment group and 173,222 similar individuals in the control group. Individuals in the treatment group received a monthly guaranteed tax-free income of 560 euros, equivalent to the minimum unemployment benefits. This effectively replaced their prior unemployment benefits (Verho, Hämäläinen, and Kanninen 2022).

While originally intended to study a basic income model in a more representative target population, the experiment was eventually limited to recipients of unemployment benefits from the Social Insurance Institution (SII), mainly due to political reasons and a tight schedule (Verho, Hämäläinen, and Kanninen 2022). The SII paid flat-rate unemployment benefits to those ineligible for contributory earnings-related unemployment allowance. Individuals were randomized to the treatment on 15 December 2016, and information letters were sent on 28 December 2016. Participation was mandatory, and a law was passed to implement the experiment (Finnish Act 1528/2016). Because randomization and follow-up used nationwide administrative data, treatment and control groups remained representative of the target population throughout the follow-up. Accordingly, the FBIE has many strengths: randomized treatment assignment, full compliance, no attrition bias, and rich register-data linkages.

The experiment increased economic incentives to work and reduced administrative barriers to receiving benefits as participants no longer had to meet job search or participation obligations, report earnings, or risk benefit suspension. This shift removed job search and participation obligations: People in the treatment group were not required to apply for any unemployment benefits or job openings, and if they started working, they continued to receive BI in full with no reductions as earnings accumulated. Taxation remained unchanged, so BI was not taxed away through higher marginal rates for those who worked. Consequently, the economic incentives in the experiment were significantly stronger than those typically proposed in realistic basic income models.

The experiment tested three interlinked mechanisms: greater income stability, freedom from sanctions, and reduced bureaucracy (Hämäläinen and Verho 2022). While its main policy goal was to improve employment, survey evidence indicated that participants reported higher well-being compared to controls (Kangas et al. 2021). Prior reviews suggest that cash transfers may reduce stress and improve mental health (Gibson, Hearty, and Craig 2020; Wilson and McDavid 2021).

Among participants who became employed during the FBIE, disposable income increased (because benefits were not withdrawn as earnings increased), yielding an average gain of about 5,900 euros during the experiment (Verho, Hämäläinen, and Kanninen 2022; Salokangas et al. 2026). For participants who remained unemployed, disposable income was nearly the same as in the control group. Overall, the FBIE raised average income in the treatment group by 9%–11%. Participants also used fewer psychotropic medications than the control group (Hämäläinen, Simanainen, and Verho 2025). After the experiment ended, income and mental-health differences between groups largely disappeared (Salokangas et al. 2026).

3. Data and methods

3.1 Data

We use nationwide Finnish administrative registers covering all participants of the Finnish Basic Income Experiment (FBIE) and their controls. Sources include the Social Insurance Institution, the Tax Administration, the Finnish Centre for Pensions, and the Population Register. Individual-level identifiers allow linkage of socioeconomic characteristics and partnership histories (Statistics Finland).

The target population of the experiment consisted of individuals (in total 175,222) who were receiving minimum unemployment benefits in November 2016 and were 25 to 58 years old on 1 December 2016, of which 2000 were assigned to the treatment group. After excluding cases with missing baseline characteristics, we ended up with a final analytic sample of 175,041 individuals. The treatment group comprises 1,999 individuals. Union histories are derived from two data sources: a register on the end-of-year union status and dwelling-level register data that record exact start and end dates of co-residential unions. These data enable observing both marriages and cohabiting unions irrespective of legal status or presence of children. Because unions are recorded only after 90 days of coresidence and cohabitation is defined for opposite-sex partners, very short unions may go unobserved and same-sex unions appear only when formally registered. The Cox models include fewer individuals because they require consistent, date-specific union histories, leading to the exclusion of cases with record discrepancies, which can still be used in the linear probability models that rely only on end-of-year status. Our three outcomes of interest are: (1) cohabitation, (2) marriage, and (3) any union, defined as being in either a cohabiting or married partnership.

Table 1 presents the baseline characteristics of participants, controls, and the rest of the Finnish population. While unemployed individuals differ markedly from the general population (e.g., lower union prevalence, income, and education, and higher antidepressant use), participants and controls are well balanced on nearly all observed covariates (Verho, Hämäläinen, and Kanninen 2022).

Table 1: Descriptive statistics of the participants of the experiment, the control group, and the rest of the Finnish population, at the end of 2016

Variable ³	Sample means			Difference between the participants and the control group ²	
	Treatment status			Est.	P-value
	Participants	Control group	Rest of Finland ¹		
Cohabiting	0.15	0.14	0.20	0.003	0.737
Married	0.30	0.30	0.46	0.006	0.574
Any union	0.45	0.44	0.66	0.004	0.723
Labour market subsidy reciprocity	0.87	0.85	0.06	0.025	0.002
Age	40.81	40.45	42.29	0.361	0.110
Age 40+	0.52	0.50	0.57	0.012	0.290
Female	0.48	0.47	0.49	0.002	0.874
Born abroad	0.24	0.25	0.08	−0.008	0.394
Urban resident	0.76	0.77	0.72	−0.001	0.926
Finished high school	0.21	0.21	0.43	0.002	0.829
Annual taxable income (euros)	10,586	10,611	34,920	−24.8	0.793
Eq. disposable income (euros)	16,325	16,396	29,930	−70.7	0.725
Has children	0.81	0.82	0.75	−0.003	0.706
Prior antidepressant medication	0.39	0.39	0.25	0.001	0.951
N	1,999	173,042	2,278,589		

Note: ¹Sample means for the rest of the Finnish population are calculated for individuals aged 25–58. ²Differences in sample means and the associated p-values from the F-test are calculated between the treatment and the control groups.

³Except for age and annual income, all variables are binary.

3.2 Empirical approach

Our main estimates come from linear probability models (LPMs) of cohabitation and marriage. LPMs are our preferred estimator as they exploit the full analytical sample, yielding the most precise population-level estimates. Outcomes are measured at the end of each year, covering the experimental (2017–2018) and post-experimental (2019–2020) periods. We estimate

$$Y_{i,p} = \alpha + X_i' \beta + \delta_p BI_i + \epsilon_{i,p}, \quad (1)$$

where $Y_{i,p}$ is a binary indicator for whether individual i was in a cohabiting or married union at the end of each calendar year between 2015 and 2020, indicated as period p . BI_i indicates participation in the experiment. X_i is a vector of baseline covariates: birth year, gender, urban residence, foreign origin, parenthood, education, labour market subsidy receipt, prior antidepressant use, and 2016 taxable income. Because treatment was randomized, δ captures the causal effect of participating in the experiment. The covariates are included to improve precision. Robust standard errors are clustered at the individual level. We also stratify analyses by gender.

To complement LPMs by accounting for timing of union transitions and censoring, we apply Kaplan–Meier survival curves and Cox proportional hazards models. These results focus on transitions from cohabitation to separation, marriage to separation, cohabitation to marriage, and single to cohabitation or marriage. Initial partnership status is derived from the status of the sample person on the last day of 2016 (the day before the start of the experiment). Follow-up began on 1 January 2017 and extended until the date of the union transition, the date of death (including partner’s death), or the end of the follow-up period. We utilized two alternative endpoints for the follow-up: (1) 31 December 2018 (i.e., the end of the experiment) and (2) 31 December 2020. We model the risk of the union transition as

$$h(t|X) = h_0(t) * \exp(\delta BI + \beta^T X), \quad (2)$$

where $h_0(t)$ is the unspecified baseline hazard and X contains the same covariates as in the linear specifications. Coefficients are presented as hazard ratios; our main parameter of interest is $\exp(\delta)$, the relative hazard for treated versus control individuals for the transition in question.

The FBIE pre-analysis plan designated employment as the primary outcome; union status was listed among secondary outcomes, but no dedicated power calculation was conducted for it. Using standard parameters (two-sided $\alpha = 0.05$, power = 0.80) and the observed sample sizes, the minimum detectable effect (MDE) for any union-status outcome is 3.1 percentage points overall, with outcome-specific MDEs of 2.2 percentage points for cohabiting union and 2.9 percentage points for marriage. These thresholds should be kept in mind when interpreting the results: effects smaller than roughly 2–3 percentage points cannot be ruled out.

4. Results

Table 2 reports linear probability model estimates of rates for any union, cohabitation, or marriage for the full sample and by gender as two-year averages across experiment (2017–2018) and post-experiment (2019–2020) periods.

Table 2: Linear probability models for the impact of participating in the FBIE on any union, cohabitation, and marriage rate

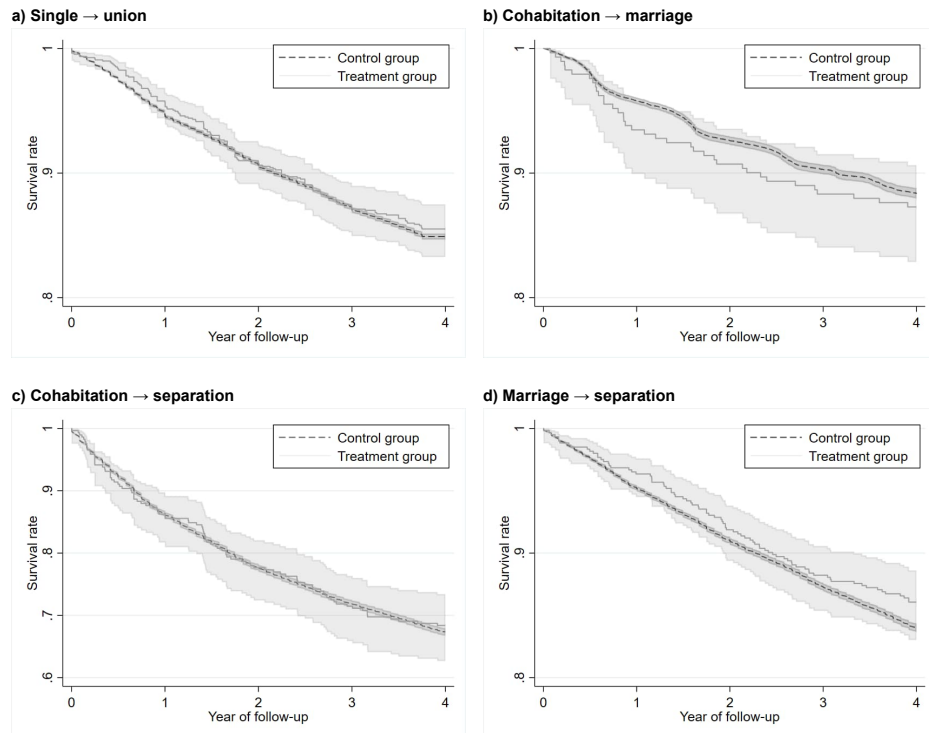
	Sample	Baseline mean	FBIE		Post-FBIE	
			No controls	Controls included	No controls	Controls included
Any union	Full	44.2	0.3 (-1.8–2.4)	0.1 (-1.8–2.1)	0.1 (-2.1–2.2)	0.0 (-2.0–2.0)
	Men	36.0	2.0 (-0.9–4.8)	1.3 (-1.2–3.8)	1.6 (-1.3–4.5)	1.0 (-1.7–3.6)
	Women	53.3	-1.6 (-4.7–1.5)	-1.1 (-4.1–1.9)	-1.3 (-4.5–1.8)	-0.9 (-3.9–2.2)
Cohabitation	Full	14.4	-0.4 (-1.8–1.1)	-0.2 (-1.6–1.2)	-0.2 (-1.7–1.2)	0.0 (-1.5–1.3)
	Men	13.9	0.3 (-1.7–2.3)	0.4 (-1.6–2.4)	0.3 (-1.7–2.3)	0.5 (-1.5–2.5)
	Women	15.0	-1.1 (-3.2–0.9)	-0.9 (-2.9–1.1)	-0.8 (-2.9–1.3)	-0.6 (-2.7–1.4)
Marriage	Full	29.8	0.7 (-1.8–2.7)	0.4 (-1.4–2.1)	0.4 (-1.7–2.4)	0.2 (-2.0–2.3)
	Men	22.1	1.7 (-0.9–4.2)	0.9 (-1.3–3.1)	1.2 (-1.4–3.8)	0.5 (-1.8–2.8)
	Women	38.2	-0.4 (-3.5–2.6)	-0.2 (-3.0–2.6)	-0.5 (-3.6–2.6)	-0.2 (-3.1–2.6)

Note: 95% confidence intervals in brackets. The two-year periods refer to the experiment (2017–2018) and post-experiment (2019–2020) periods. Estimates are in percentage points. Estimates for participating in the FBIE during the two distinct time periods were derived from the same model with period-specific estimates obtained using marginal effects. The control variables included were year of birth, gender, indicators for urban residency, being born abroad, having children, receiving labour market subsidy, educational level (primary, secondary, or tertiary), and taxable income in 2016. Standard errors were clustered at the individual level.

The estimates show no effect of participating in the FBIE on any of the three outcomes. In both periods, the coefficients for treatment status are small and imprecisely estimated, and the 95% confidence intervals consistently include zero. Including covariates slightly narrows standard errors but does not change the overall conclusion. Gender-stratified estimates are also null: men show small positive point estimates for union and marriage rates and women similarly sized negative estimates, but none differ meaningfully from zero. Thus, among unemployed benefit recipients, the experiment neither systematically affected union formation nor revealed gender heterogeneity.

In addition to linear regression analysis, we examined union transitions using Kaplan–Meier curves (Figure 1) and Cox regressions (Table 3). Table 3 shows that during the FBIE, about 22% of cohabiting unions dissolved, 9% of singles formed a union, and 7% of cohabiting unions converted into marriage. By 2020 the respective shares were 33%, 15%, and 12%. Marital dissolution was less frequent (9% during the experiment; 16% by 2020).

Figure 1: Kaplan–Meier survival estimates (and 95% confidence intervals) of union transitions by treatment status



Note: The follow-up begins at the start of 2017, marking the start of the two-year FBIE.

Estimates from Cox regressions models show no statistically significant effects of participating in the FBIE: hazard ratios are close to 1 and confidence intervals wide, reflecting the limited number of events in the treatment group. However, two transitions warrant closer attention. First, treated individuals showed a notably higher rate of transitioning from cohabitation to marriage, with hazard ratios of 1.284 (95% CI 0.878–1.877) during the experiment and 1.168 (95% CI 0.845–1.617) over the full follow-up, suggesting that treated cohabiting couples were approximately 17%–28% more likely to formalize their union, a substantively meaningful difference even if statistically imprecise. Second, the hazard ratio for marriage dissolution was 0.903 (95% CI 0.682–1.197) during the experiment and 0.881 (95% CI 0.710–1.092) in the longer follow-up, with notably lower confidence bounds consistent with a moderately sized stabilizing effect. Given the small number of events in the treatment group, these patterns should be

treated as suggestive. The Kaplan–Meier curves (Figure 1) display modestly diverging trajectories for these two transitions, broadly consistent with the Cox estimates.

Table 3: Union transition rates during the FBIE (2017–2018) and during the extended follow-up (2017–2020), and Cox regression models for the impact of participating in the FBIE

		Transitions (%)		
Transition type	N	Treatment group	Control group	HR (95 % CI)
Follow-up until 2018				
Cohabitation → separation	25,464	65 (22.3%)	5611 (22.3%)	1.009 [0.790–1.289]
Marriage → separation	51,554	49 (8.1%)	4560 (8.9%)	0.903 [0.682–1.197]
Cohabitation → marriage	25,464	27 (9.3%)	1867 (7.4%)	1.284 [0.878–1.877]
Single → union	97,091	99 (9%)	8961 (9.3%)	0.964 [0.791–1.175]
Follow-up until 2020				
Cohabitation → separation	25,464	92 (31.6%)	8233 (32.7%)	0.990 [0.806–1.216]
Marriage → separation	51,554	84 (13.9%)	8144 (16%)	0.881 [0.710–1.092]
Cohabitation → marriage	25,464	37 (12.7%)	2942 (11.7%)	1.168 [0.845–1.617]
Single → union	97,091	157 (14.4%)	14357 (15%)	0.980 [0.837–1.147]

Note: Union transition rates, along with hazard ratios (and their 95% confidence intervals) from Cox proportional hazards models for each transition. The sample is split into three groups according to the union status at the end of 2016: cohabiting, married, or single. Union refers to either cohabiting union or marriage. The models include the same control variables as in Table 2.

5. Discussion and conclusions

We evaluated the Finnish Basic Income Experiment (FBIE) focusing on union dynamics among unemployed benefit recipients. The FBIE temporarily replaced unemployment benefits with an unconditional payment, removing job-search obligations, sanctions, and administrative barriers. Using comprehensive register data, we examined union formation and dissolution before, during, and after the experiment.

Our findings indicate that participating in the experiment did not affect union formation or dissolution. Union rates remained similar for treatment and control groups across all periods, and hazard ratios for all four union transitions were close to 1 in both the experimental and post-experimental follow-up periods. The modest size of the treatment group limits precision: while the evidence is most informative about large effects, moderately sized effects cannot be excluded. Also, the restriction to unemployed individuals limits population-level inference.

These results contribute to the debate on whether welfare reforms influence family dynamics. Early U.S. experiments suggested negative effects on marital stability (Hannan *et al.* 1977, 1978; Groeneveld, Tuma, and Hannan 1980), while later evidence questioned such conclusions (Cain and Wissoker 1990; Gonalons-Pons and Calnitsky 2022). Against this background, the Finnish evidence suggests that in a comprehensive welfare state,

modest reforms that increase economic stability and independence by reducing administrative burdens do not substantially alter family formation or dissolution, either overall or by gender. Comparison to results from previous reforms is limited because of the unique nature of the Finnish experiment.

Calls to restructure social protection after the Covid-19 pandemic led some governments to implement fixed-term unconditional cash transfers resembling basic income programmes (Mäntyneva et al. 2022). Our findings suggest such measures may have limited effects on partnering patterns.

These results reflect three features of the FBIE: First, it was implemented in a welfare state with a robust minimum income system, where basic income likely changed everyday life less than in contexts without such a safety net. Second, the Finnish model provided no new cash influx, complicating its characterization as a basic income experiment (despite its official title) and comparison with previous reforms and experiments. Third, the two-year, pre-announced duration suggests that temporary economic autonomy without additional cash may not influence long-term decisions about intimate relationships. Accordingly, the observed effects primarily capture immediate behavioural responses, while longer-term changes may require more sustained exposure to such a policy.

In conclusion, the Finnish Basic Income Experiment provides rare experimental evidence from a Nordic context, suggesting that removing welfare obstacles does not substantially influence union formation or dissolution.

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