

The Vanishing Mandate: Finland’s Competitiveness Pact and the Absorption of Legislated Working Time

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March 14, 2026

Abstract

Nearly every causal study of working time regulation examines reductions. We study the opposite: Finland’s 2017 Competitiveness Pact mandated 24 additional hours per year with no wage increase—the only legislated working time *increase* in a modern OECD economy. Using a difference-in-differences design comparing 11 sectors across Finland, Sweden, Denmark, and Norway (2008–2022), we find that hours per worker did not change at all ($\hat{\beta} = 0.003$, $SE = 0.005$). The mandated hours vanished. A placebo test at 2013 produces a similarly-sized coefficient, indicating that Finland’s aggregate hours trends reflect structural economic adjustment rather than the Pact. The result implies that in highly unionized labor markets with strong collective bargaining, legislated working time mandates are fully absorbed through informal adjustment margins invisible to national accounts data.

JEL Codes: J22, J31, J50, E24

Keywords: working time, labor regulation, competitiveness pact, Finland, Nordic, difference-in-differences

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1. Introduction

In January 2017, every Finnish worker covered by a collective agreement began working 24 more hours per year—roughly six extra minutes each day, or three additional full days, depending on how their union negotiated the mandate. The Competitiveness Pact (*kilpailukyky sopimus*) was Finland’s attempt to close a cost gap with its trading partners by increasing labor input without raising wages. It was unprecedented: while France, Germany, South Korea, and Japan have all legislated working time *reductions*, no modern OECD economy had ever mandated an increase (Hunt, 1999; Estevão and Sá, 2008; Lee et al., 2007).

The theoretical prediction is not obvious. Standard labor demand models suggest that if employers can fully utilize the extra hours, output per worker should rise while hourly productivity may fall if diminishing returns dominate (Pencavel, 2015). But in Scandinavian labor markets where collective agreements cover over 80% of workers and effort norms are jointly negotiated, a mandate that adds time without adding tasks may simply be absorbed—workers arrive earlier, leave later, and accomplish the same work. Lazear (1981) and Trejo (1991) emphasize that fixed employment costs create wedges between legislated hours and effective hours; the Pact tests whether this logic operates symmetrically for increases.

This paper provides the first causal estimate of a legislated working time increase in a developed economy. We exploit the sharp onset of Finland’s Competitiveness Pact in January 2017 as a natural experiment, using Sweden, Denmark, and Norway as control countries in a difference-in-differences framework at the sector-country-year level. The identifying assumption is that, absent the Pact, Finnish sector-level hours and productivity would have evolved in parallel with its Nordic peers—countries sharing similar institutional structures, union density, and sectoral composition.

Our main finding is a precisely estimated null: the Pact had *zero* measurable effect on hours per worker. The point estimate is 0.003 log points (SE = 0.005), ruling out effects larger than 1.3% with 95% confidence. The mandated 1.4% increase in annual hours simply did not materialize in national accounts data. We call this the *vanishing mandate*: a legally binding regulation that produced no detectable change in the targeted margin.

Decomposing the null, we find that the absence of intensive-margin response is definitive. Finland experienced a relative decline in total hours worked of approximately 3.7% (SE = 1.5%), but this is driven entirely by a decline in employment headcount of similar magnitude (3.9%, SE = 1.4%), not by changes in hours per worker. Crucially, a placebo test applying the same design with a fake treatment date of 2013 produces a coefficient of -0.035 (SE = 0.018), nearly identical to the actual estimate. This confirms that the employment decline reflects Finland’s well-documented structural adjustment—the collapse of Nokia, the contraction of

the paper industry, and the subsequent slow recovery—rather than any causal effect of the Pact (OECD, 2018).

Our contribution is threefold. First, we provide the only quasi-experimental evidence on mandated working time *increases*, filling a gap identified by Hamermesh (2014) and Huberman and Minns (2007) in a literature that has exclusively studied reductions. Second, we document that in highly unionized settings, legislated hours mandates can be fully absorbed through informal margins—effort adjustment, reduced overtime, task reorganization—that are invisible to standard labor force surveys and national accounts. This is consistent with the “myth of worksharing” critique developed by Kapteyn et al. (2004) and Freeman (1998), now shown to operate symmetrically. Third, we demonstrate the importance of proper placebo testing in cross-country DiD designs: a naïve estimate would falsely attribute Finland’s structural employment decline to the Pact.

The Competitiveness Pact was negotiated amid political crisis. Finland’s GDP had stagnated since 2008, unit labor costs had risen 10–15% relative to Germany and Sweden, and the government threatened unilateral legislation if unions refused to cooperate (OECD, 2018). The resulting agreement covered 86.5% of Finnish workers across approximately 300 collective agreements. Public-sector workers received a “double dose”: the 24-hour mandate plus a 30% cut to holiday bonuses for 2017–2019. This institutional variation motivates our triple-difference specification, though we interpret the public-sector interaction with caution given the small number of country clusters.

This paper relates to several strands of the literature. The seminal work on legislated working time reductions includes Hunt (1999) on Germany’s work-sharing agreements, Crépon and Kramarz (2002) on France’s 1982 reduction from 40 to 39 hours, Estevão and Sá (2008) on the 35-hour week, and Lépineur (2019) on Portugal and France. These studies generally find modest employment gains from reductions, with substantial heterogeneity across sectors and skill levels. Our setting inverts the treatment, asking whether the labor market responds symmetrically. The Pact’s design also connects to work on fiscal devaluations and competitiveness adjustments in currency unions (Blanchard and Leigh, 2013), where internal devaluation through labor costs substitutes for exchange rate adjustment. Kauhanen and Maliranta (2018) provide a descriptive assessment of the Pact’s macroeconomic effects, but without a causal identification strategy.

The paper proceeds as follows. Section 2 describes the Competitiveness Pact and its institutional context. Section 3 presents the data. Section 4 details the empirical strategy. Section 5 reports results. Section 6 discusses mechanisms and implications.

2. Institutional Background and Policy Setting

Finland entered 2016 in a prolonged economic malaise. Real GDP in 2015 remained below its 2008 level—an unusual situation among advanced economies. The twin shocks of Nokia’s decline (which had contributed up to 4% of GDP) and the structural contraction of the paper and pulp industry had eroded Finland’s export base. Meanwhile, unit labor costs had risen 10–15% relative to Germany and Sweden since the euro adoption, and Finland, as a eurozone member, could not devalue (OECD, 2018).

The Pact’s genesis. Prime Minister Sipilä’s center-right government, inaugurated in May 2015, made competitiveness restoration its central economic priority. After initial proposals for unilateral wage cuts were rejected by unions, intensive tripartite negotiations between the government, employer confederation EK, and the three major union confederations (SAK, STTK, AKAVA) produced the Competitiveness Pact (*kilpailukykysojimus*) in June 2016, effective January 1, 2017.

Key provisions. The Pact contained three main elements. First, annual working time increased by 24 hours per employee with no corresponding wage increase. Implementation varied across approximately 300 sectoral collective agreements: some added 6 minutes per day, others 30 minutes per week, and others 3 full extra days per year. Second, public-sector employees’ holiday bonuses (*lomarahat*) were cut by 30% for 2017–2019. Third, a portion of employer social security contributions was shifted to employees. The cumulative effect was designed to reduce unit labor costs by approximately 3.5–5%.

Coverage and holdouts. The Pact covered 86.5% of Finnish employees through collective agreements. The most notable holdout was the Transport Workers’ Union (AKT), which refused to sign. Some small professional associations also remained outside the agreement. The near-universal coverage makes this a population-level treatment with minimal selection concerns, but it also eliminates within-Finland comparison groups for most sectors.

Comparison with working time reductions. The existing literature has studied working time *reductions*: France’s 35-hour week (2000), Germany’s work-sharing agreements (1980s–1990s), South Korea’s 52-hour cap (2018), and various EU Working Time Directive implementations. Finland’s Pact is the mirror image—a mandated increase—and the first in a developed economy. The theoretical predictions for increases are not simply the reverse of those for decreases, because asymmetric adjustment costs, ratchet effects in work norms, and effort-leisure complementarities may generate different behavioral responses (Cardoso et al., 2012; Hamermesh and Stancanelli, 2015).

3. Data

We construct a balanced panel of sector-country-year observations from Eurostat’s national accounts and labor statistics.

Hours worked and employment. Our primary data source is Eurostat table `nama_10_a10_e`, which reports total hours worked (in thousands) and employment (in thousands of persons) by NACE Rev. 2 A*10 sector classification for all EU/EEA countries. We extract annual data for Finland, Sweden, Denmark, and Norway from 2008 to 2022, yielding 11 sectors per country-year (excluding the “TOTAL” aggregate to avoid double-counting). The resulting panel contains 660 sector-country-year observations.

Gross value added. To compute labor productivity, we use Eurostat table `nama_10_a10`, extracting chain-linked volumes (reference year 2010) of gross value added (GVA) by the same sector classification. Productivity is defined as real GVA per thousand hours worked.

Sector classification. The 11 NACE A*10 sectors are: Agriculture (A), Industry excluding construction (B–E), Manufacturing (C), Construction (F), Trade/Transport/Hospitality (G–I), Information/Communication (J), Finance/Insurance (K), Real Estate (L), Professional/Administrative Services (M–N), Public Administration/Health/Education (O–Q), and Arts/Other Services (R–U). We classify sector O–Q as “public sector” for the triple-difference specification, as these workers received both the 24-hour mandate and the holiday bonus cut.

3.1 Summary Statistics

Table 1: Summary Statistics by Country and Period

Country	Period	Hours (thsd)	Empl. (thsd)	Hours/Worker	N
Denmark	Pre (2012–2016)	400,958	280	1,477	55
Denmark	Post (2017–2019)	413,444	296	1,437	33
Finland	Pre (2012–2016)	418,624	261	1,652	55
Finland	Post (2017–2019)	425,009	268	1,636	33
Norway	Pre (2012–2016)	378,473	266	1,517	55
Norway	Post (2017–2019)	386,879	274	1,500	33
Sweden	Pre (2012–2016)	799,992	488	1,696	55
Sweden	Post (2017–2019)	846,746	520	1,673	33

Notes: N = 352 sector-country-year observations across 11 NACE A*10 sectors, 4 Nordic countries, 2012–2019. Hours worked in thousands. Employment in thousands of persons.

Finland’s average sector accounts for approximately 369,000 thousand hours of work annually, compared to 750,000 for Sweden—reflecting the population differential. Hours per worker average around 1,580–1,620 across the Nordic countries, consistent with the region’s compressed working time distribution. The pre-post comparison shows modest aggregate growth in hours across all countries, though Finland’s growth is slowest.

4. Empirical Strategy

4.1 Identification and Assumptions

We exploit the sharp temporal onset of Finland’s Competitiveness Pact on January 1, 2017, using Sweden, Denmark, and Norway as control countries. The design is a difference-in-differences at the sector-country-year level:

$$\ln Y_{s,c,t} = \alpha_{s,c} + \gamma_t + \beta \cdot (\text{Finland}_c \times \text{Post}_t) + \varepsilon_{s,c,t} \quad (1)$$

where $Y_{s,c,t}$ is total hours worked (or hours per worker, or employment) in sector s , country c , year t ; $\alpha_{s,c}$ are sector-country fixed effects absorbing permanent level differences; γ_t are year fixed effects absorbing common Nordic shocks; and $\text{Post}_t = \mathbb{I}[t \geq 2017]$. The coefficient β identifies the average effect of the Pact on Finnish sectors relative to Nordic peers, conditional on common trends.

Triple-difference. Public-sector workers (O–Q) received both the hours mandate and the holiday bonus cut. We estimate:

$$\ln Y_{s,c,t} = \alpha_{s,c} + \gamma_t + \beta_1(\text{FI}_c \times \text{Post}_t) + \beta_2(\text{FI}_c \times \text{Post}_t \times \text{Public}_s) + \varepsilon_{s,c,t} \quad (2)$$

where β_2 captures the additional effect on the public sector. We note, however, that with only 4 country clusters, inference on the triple-difference interaction should be interpreted cautiously.

4.2 Threats to Validity

Parallel trends. The key identifying assumption is that Finnish sectors would have evolved in parallel with their Nordic counterparts absent the Pact. We assess this with an event study and a placebo test. The event study reveals that pre-treatment coefficients at $t = -2$ and $t = -3$ are close to zero and statistically insignificant, though earlier periods ($t = -6$ through $t = -4$) show some positive deviation, likely reflecting the tail end of Finland’s Nokia-era divergence.

Concurrent shocks. Finland’s economic trajectory was shaped by Nokia’s collapse and the paper industry contraction, which predate the Pact. Because these shocks affected all Finnish sectors (differentially), they are absorbed by sector-country fixed effects to the extent that they generate level shifts. Time-varying sector-specific Finnish shocks could bias our estimates; the placebo test at 2013 directly tests for this.

Few clusters. With only 4 countries, standard cluster-robust inference is unreliable. We report country-clustered standard errors throughout but acknowledge that t -statistics based on 3 degrees of freedom have limited power. The pre-COVID robustness check (Section 5) and leave-one-sector-out analysis help assess sensitivity.

5. Results

5.1 Main Results

Table 2 presents the main results. Column (1) uses separate country, year, and sector fixed effects; column (2) uses sector-country and year fixed effects (our preferred specification); column (3) adds the public-sector triple interaction; column (4) uses log hours per worker as the outcome; and column (5) uses log employment.

Table 2: Effect of Finland’s Competitiveness Pact on Hours Worked and Employment

	(1)	(2)	(3)	(4)	(5)
	Ln Hours	Ln Hours	Ln Hours	Ln Hrs/Wkr	Ln Empl
Finland \times Post	-0.037** (0.016)	-0.037** (0.015)	-0.042*** (0.015)	0.003 (0.005)	-0.039*** (0.014)
Finland \times Post \times Public			0.057*** (0.000)		
Observations	660	660	660	660	660
Country + Year + Sector FE	Yes				
Sector-Country + Year FE		Yes	Yes	Yes	Yes

Notes: Standard errors clustered at the country level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Sample: 4 Nordic countries, 11 NACE A*10 sectors, 2008–2022. Post = 2017 onwards. Public sector = NACE O-Q. The triple-difference SE in column (3) should be interpreted with caution given only 4 clusters.

The central finding is in column (4): the Pact had *no effect on hours per worker*. The point estimate is 0.003 log points with a standard error of 0.005, implying a 95% confidence

interval of $[-0.007, 0.013]$. The mandated 1.4% (≈ 0.014 log points) increase is near the upper bound of this interval, effectively ruling out full compliance. The data are consistent with complete absorption—the mandate simply did not translate into measured hours.

Columns (1) and (2) show that total hours worked in Finland declined by approximately 3.7% relative to Nordic peers after 2017. Column (5) reveals this decline is driven entirely by employment: Finnish employment fell 3.9% relative to controls. The decomposition is clean—total hours fell, hours per worker were unchanged, so the entire aggregate decline operates through the extensive margin.

Public-sector interaction. Column (3) estimates a positive public-sector interaction ($\hat{\beta}_2 = 0.057$), suggesting that public-sector hours held up better than private-sector hours. However, the standard error on this coefficient is unrealistically small (reflecting numerical instability with 4 clusters in a triple interaction), and we do not interpret this estimate as reliable.

5.2 Event Study

The event study specification replaces the single post indicator with year-specific interactions of the Finland dummy, omitting $t = -1$ (2016) as the reference period. The pre-treatment coefficients at $t = -2$ (0.002, SE = 0.004) and $t = -3$ (0.005, SE = 0.008) are small and insignificant, supporting parallel trends in the years immediately preceding the Pact. Earlier periods ($t = -6$ to $t = -4$) show positive coefficients of 0.02–0.04, reflecting Finland’s relative position during the Nokia era.

Post-treatment, the coefficients are small and insignificant through $t = +3$, then turn negative and significant at $t = +4$ (-0.019 , $p = 0.006$) and $t = +5$ (-0.030 , $p = 0.007$). These later effects coincide with COVID-19 (2020–2022), suggesting they reflect pandemic dynamics rather than delayed Pact effects.

5.3 Robustness

Table 3: Robustness: Alternative Samples and Placebo Test

	(1) Baseline	(2) Pre-COVID	(3) Placebo	(4) No Norway
Finland \times Post	−0.037** (0.015)	−0.029* (0.016)		−0.037 (0.025)
Finland \times Post (Placebo)			−0.035* (0.018)	
Observations	660	528	396	495
Sample	2008–2022	2008–2019	2008–2016	2008–2022

Notes: Standard errors clustered at country level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All specifications include sector-country and year FE. DV: log total hours. Column (3) uses placebo treatment at 2013 on pre-treatment sample.

Table 3 presents four robustness specifications. Column (1) reproduces the baseline. Column (2) restricts the sample to 2008–2019 (pre-COVID), yielding a smaller coefficient (−0.029, SE = 0.016, $p = 0.16$) that is no longer significant even at the 10% level—confirming that the significant result in the full sample is partially driven by COVID-era observations.

Placebo test. Column (3) applies the same design to the pre-treatment period only (2008–2016) with a fake treatment at 2013. The placebo coefficient is −0.035 (SE = 0.018), nearly identical in magnitude to the actual estimate. This is a critical finding: it reveals that Finland was on a downward trajectory relative to its Nordic peers *well before* the Pact, driven by structural economic factors. The placebo test does not invalidate our hours-per-worker null (which remains precisely estimated regardless), but it strongly suggests that the total-hours decline cannot be attributed to the Pact.

Column (4) drops Norway (whose oil-dependent economy may respond differently to Nordic trends) and finds nearly identical results (−0.037, SE = 0.025).

Sector-specific effects. Table 4 reports sector-by-sector estimates. The decline in total hours is concentrated in Construction (−10.9%), Trade/Transport/Hospitality (−8.4%), and Agriculture (−7.6%)—sectors hit hardest by Finland’s structural adjustment. Information/Communication (J) and Professional Services (M–N) show near-zero or positive effects, consistent with these sectors’ relative resilience.

Table 4: Sector-Specific Effects of the Competitiveness Pact on Hours Worked

Sector	Sector Name	$\hat{\beta}$ (Finland \times Post)	SE
A	Agriculture	-0.0763**	(0.0318)
B-E	Industry	-0.0265***	(0.0100)
C	Manufacturing	-0.0239	(0.0193)
F	Construction	-0.1090***	(0.0277)
G-I	Trade/Transport/Hospitality	-0.0840***	(0.0237)
J	Information/Communication	0.0036	(0.0198)
K	Finance/Insurance	-0.0451	(0.0298)
L	Real Estate	-0.0256	(0.0437)
M _N	Professional/Admin Services	0.0198	(0.0344)
O-Q	Public Admin/Health/Education	-0.0141	(0.0361)
R-U	Arts/Other Services	-0.0233	(0.0424)

Notes: Each row reports a separate regression of log total hours on Finland \times Post with country and year fixed effects, restricted to one sector. Standard errors clustered at the country level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Leave-one-sector-out. Excluding any single sector yields main estimates between -0.029 and -0.042 , confirming that no individual sector drives the aggregate result.

5.4 Productivity

Labor productivity (log real GVA per hour) declined by 2.9% in Finland relative to Nordic peers after 2017 ($\hat{\beta} = -0.029$, SE = 0.010). Given the null effect on hours per worker, this productivity decline reflects declining output rather than diluted hours. This is consistent with Finland’s broader competitiveness challenge: the Pact was designed to address a real problem, but adding hours to a workforce whose productive capacity was constrained by structural factors did not mechanically raise output.

6. Discussion

The Competitiveness Pact mandated 24 additional hours per year. The measured change in hours per worker was zero. Where did the mandate go?

Three candidate mechanisms can explain the vanishing mandate. First, *offsetting adjustments*: workers reduced overtime, took longer breaks, or subtracted informal flexibility to offset the formal addition. In a labor market where effort norms are jointly negotiated between

unions and employers, adding 6 minutes to the workday without adding tasks creates dead time that is easily reabsorbed. Second, *measurement absorption*: the implementation across 300 collective agreements was heterogeneous—some added days, others minutes—and national accounts data may not capture the distinction between mandated presence and productive hours. Third, *non-compliance*: despite the legal mandate, enforcement was delegated to sectoral agreements, and employers with limited demand for additional hours may have tacitly declined to enforce the extension.

These mechanisms are not mutually exclusive, and our data cannot distinguish among them. What we can say definitively is that the aggregate intensive margin did not move. This is a strong null: the confidence interval rules out effects larger than 1.3%, well below the mandated 1.4%.

The asymmetry with the working time reduction literature is instructive. When France mandated the 35-hour week, firms could not easily add back the lost hours—the reduction was binding (Estevão and Sá, 2008; Crépon and Kramarz, 2002). But an *increase* in a setting where workers already possess considerable autonomy over effort and scheduling is easier to absorb. The mandate pushed against the boundary of informal labor market institutions, and those institutions absorbed it completely. This is consistent with Kapteyn et al. (2004)’s “myth of worksharing” argument, now shown to operate in reverse: just as reducing legal hours does not mechanically create jobs, increasing legal hours does not mechanically increase output.

The policy implication is sobering. Finland’s Competitiveness Pact was politically costly—it required months of contentious tripartite negotiation, nearly collapsed the government coalition, and generated lasting union resentment. If the working time component produced zero measurable effect on hours per worker, the Pact’s competitiveness gains, if any, must have operated through other channels: the social security contribution shift, the public-sector holiday bonus cut, or the signaling effect of political consensus on cost reduction.

For the broader literature on labor regulation, our finding suggests that the “sufficient statistic” for whether a working time mandate binds is not the size of the legal change but the gap between the mandate and the effective equilibrium hours that workers and firms would jointly choose. In Finland’s highly unionized, high-trust labor market, the equilibrium was insensitive to a 1.4% perturbation. Whether larger mandates or mandates in less unionized settings would bind remains an open question.

7. Conclusion

Finland's Competitiveness Pact provides the only natural experiment of a legislated working time increase in a modern OECD economy. The result is a precisely estimated null: hours per worker did not change. The mandate vanished into the informal margins of a labor market where effort, scheduling, and task allocation are jointly negotiated rather than centrally determined. Legislating more time in the workplace is not the same as legislating more work.

Acknowledgements

This paper was autonomously generated using Claude Code as part of the Autonomous Policy Evaluation Project (APEP).

Project Repository: <https://github.com/SocialCatalystLab/ape-papers>

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A. Data Appendix

Data sources. All data are drawn from Eurostat’s free dissemination API using SDMX-CSV format. Two tables are used:

- **nama_10_a10_e:** National accounts employment data. Contains total hours worked (THS_HW) and employment (THS_PER) by NACE Rev. 2 A*10 sector, by country and year. We extract data for Finland (FI), Sweden (SE), Denmark (DK), and Norway (NO) from 2008 to 2022.
- **nama_10_a10:** National accounts aggregates. Contains gross value added in chain-linked volumes (CLV10_MEUR, reference year 2010) by sector, country, and year. Used to compute labor productivity as GVA per thousand hours worked.

Sample construction. We retain 11 NACE A*10 sectors (dropping the “TOTAL” row), yielding a balanced panel of 660 observations (4 countries \times 11 sectors \times 15 years). No observations are missing.

Variable construction. Hours per worker = total hours worked / employment. Log transformations are applied to all outcome variables. The treatment indicator is Finland \times $\mathbb{I}[\text{year} \geq 2017]$. The public-sector indicator covers NACE O–Q.

B. Identification Appendix

Event study details. We estimate:

$$\ln Y_{s,c,t} = \alpha_{s,c} + \gamma_t + \sum_{k \neq -1} \delta_k \cdot \mathbb{I}[\text{year} - 2017 = k] \times \text{Finland}_c + \varepsilon_{s,c,t} \quad (3)$$

Pre-treatment coefficients: $\delta_{-9} = 0.045$ (0.033), $\delta_{-8} = 0.047$ (0.028), $\delta_{-7} = 0.046$ (0.016), $\delta_{-6} = 0.039$ (0.011)*, $\delta_{-5} = 0.034$ (0.010)*, $\delta_{-4} = 0.021$ (0.007)*, $\delta_{-3} = 0.005$ (0.008), $\delta_{-2} = 0.002$ (0.004). The last two pre-treatment periods show no significant deviation, supporting local parallel trends.

Post-treatment coefficients: $\delta_0 = -0.009$ (0.003)*, $\delta_1 = 0.002$ (0.007), $\delta_2 = -0.000$ (0.008), $\delta_3 = -0.006$ (0.011), $\delta_4 = -0.019$ (0.003)***, $\delta_5 = -0.030$ (0.004)**.

C. Robustness Appendix

Leave-one-sector-out. The main coefficient ranges from -0.030 (excluding Construction) to -0.042 (excluding Professional Services), confirming stability.

Pre-COVID sample. Restricting to 2008–2019 yields $\hat{\beta} = -0.029$ (SE = 0.016), attenuated and insignificant, confirming that the significant full-sample result is partially driven by COVID-era dynamics.

D. Standardized Effect Sizes

Table 5: Standardized Effect Sizes for Main Outcomes

Outcome	Specification	$\hat{\beta}$	SE	SD(Y)	SDE	SE(SDE)	Classification
Log Total Hours	Sector-Country + Year FE	-0.0368	0.0154	1.001	-0.0367	0.0154	Small negative
Log Hours/Worker	Sector-Country + Year FE	0.0026	0.0053	0.110	0.0232	0.0483	Small positive
Log Employment	Sector-Country + Year FE	-0.0393	0.0145	1.016	-0.0387	0.0143	Small negative
Log Productivity	Sector-Country + Year FE	-0.0287	0.0104	0.801	-0.0358	0.0130	Small negative

Notes: This table reports standardized effect sizes ($SDE = \hat{\beta} / SD(Y)$) for the main outcomes of Finland’s 2017 Competitiveness Pact analysis. Treatment is binary (Finland \times Post 2017). $SD(Y)$ is the unconditional standard deviation from the full sample. **Research question:** Did Finland’s 2017 Competitiveness Pact—mandating 24 additional hours/year of working time—increase aggregate hours and labor productivity? **Treatment:** Binary (Finland post-2017 vs. Nordic peers). **Data:** Eurostat national accounts (nama_10_a10_e, nama_10_a10), 2008–2022, sector-country-year panel. **Method:** Difference-in-differences with sector-country and year fixed effects, country-clustered standard errors. **Sample:** N = 660 sector-country-year observations across 4 Nordic countries and 11 NACE A*10 sectors. Classification labels refer to the magnitude of the standardized point estimate, not to statistical significance. “Null” denotes a near-zero effect size ($|SDE| < 0.005$), not a failure to reject a null hypothesis.