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# Work from home trends in European countries

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## Abstract

This paper analyzes the evolution of working from home across European countries using data from the European Working Conditions Survey (2005–2021). The study documents a substantial increase in working from home, particularly during the COVID-19 pandemic, with notable cross-country and gender differences. It also examines how working from home correlates with individual characteristics such as gender, age, education, employment status, occupation, and household composition. We find that self-employment, digital work intensity, and higher education are consistently associated with greater working from home prevalence. Conversely, public sector employment and full-time contracts are negatively related to working from home.

Keywords: work from home; remote work; telework; EWCS data.

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# **1. Introduction**

The expansion of work from home (WFH), or telecommuting, has become one of the most notable transformations in labor markets in recent decades. WFH refers to the practice whereby employees conduct paid work activities from their home instead of a designated workplace. Although WFH was already practiced by self-employed and agricultural workers, its adoption among white-collar employees remained limited until recent advances in technology enabled large-scale remote collaboration (Bloom et al., 2015; Restrepo and Zeballos, 2022). The relevance of WFH has increased due to its potential to enhance flexibility, reduce commuting time, and facilitate work-life balance (Athanasiadou and Theriou, 2021; Kim, 2020). However, WFH also introduces challenges, such as blurred boundaries between work and personal life, increased demands, and reduced in-person interactions (Brindal et al., 2022; Hamermesh, 2020; Fujiwara et al., 2020; Möhring et al., 2021; Ruiz et al., 2021; Gimenez-Nadal et al., 2023).

A growing literature has examined the implications and evolution of telework. Before the COVID-19 pandemic, WFH was associated with benefits including reduced urban congestion, lower pollution, and positive effects on organizational outcomes (Sampath et al., 1996; Safirova, 2002; White et al., 2007; Golden, 2006; Duxbury and Halinski, 2014). Research also found that WFH could improve work-life balance and facilitate a fairer distribution of household responsibilities, especially for women (Gajendran and Harrison, 2007; Allen et al., 2015; Chung and van der Horst, 2018; Dockery and Bawa, 2018; Edwards and Field-Hendrey, 2002; Restrepo and Zeballos, 2020; Gimenez-Nadal et al., 2024). However, some studies highlighted possible downsides, such as reduced inclusivity, coworker satisfaction, and potential loss of control over work processes (Bailey and Kurland, 2002; Golden, 2007; Rhee, 2008; Morganson et al., 2010; Golden and Fromen, 2011; Gajendran et al., 2014).

The COVID-19 pandemic accelerated the adoption of WFH across all sectors, as lockdowns and mobility restrictions forced millions of workers to shift to remote work (Ceccato et al., 2022; Wang et al., 2023). This led to major changes in time allocation, commuting, and daily routines. Several studies have documented large increases in WFH during the pandemic and have analyzed its consequences for time use, gender gaps, and well-

being (Del Boca et al., 2020; Andrade and Petiz Lousã, 2021; Sullivan et al., 2021; Blahopoulou et al., 2022; Restrepo and Zeballos, 2022; Pabilonia and Vernon, 2023; Gimenez-Nadal et al., 2025). The evidence indicates that while WFH was initially associated with less paid work and more leisure –particularly among women– these differences narrowed during lockdowns (Giménez-Nadal et al., 2020; Restrepo and Zeballos, 2022; Pabilonia and Vernon, 2023). The impact on subjective well-being is less clear, with some studies reporting increased well-being (Restrepo and Zeballos, 2022; Foliano et al., 2022), and others finding no significant effect or even negative consequences, depending on gender, family context, and national setting (Song and Gao, 2020; Hamermesh, 2020; Möhring et al., 2021; Ruiz et al., 2021; Brindal et al., 2022).

This paper analyzes the evolution of telework in Europe from 2005 to 2021 using data from the European Working Conditions Survey (EWCS). We document trends in the prevalence of WFH across countries and years, and examine how teleworking is associated with individual characteristics such as gender, age, education, occupation, household composition, and self-employment status. Our empirical approach combines descriptive analysis with multivariate regression to control for observable differences and to assess changes over time.

The main contribution of this paper is twofold. First, it provides a systematic overview of the growth of telework in Europe over more than fifteen years, capturing both the gradual rise before COVID-19 and the dramatic increase during the pandemic. Second, it offers new evidence on how teleworking relates to worker characteristics, identifying which groups are most likely to benefit from the expansion of remote work. These results are relevant for policymakers, employers, and researchers interested in the future of work and the potential inequalities emerging from the diffusion of telework.

The rest of the paper is structured as follows. Section 2 describes the data and variables. Sections 3 and 4 show the descriptive analysis, and the empirical strategy and results, respectively. Section 5 concludes.

# 2. Data and variables

#### 2.1 The data

The analysis relies on data from the European Working Conditions Survey (EWCS), a repeated cross-sectional survey coordinated by Eurofound and conducted across European countries since 1990. The EWCS is designed to provide a comprehensive overview of workers' experiences and working conditions across Europe. It collects detailed information on employment status, work organization, work schedules, job quality, health and wellbeing, and sociodemographic characteristics, using standardized questionnaires administered to nationally representative samples of employees and self-employed individuals aged 15 years and older. The survey covers all EU Member States and several other European countries, with waves conducted in 2005, 2010, 2015, and 2021. The EWCS is widely recognized as the primary data source for comparative research on working conditions in Europe and is regularly used to monitor labor market trends, inform policy debates, and conduct academic research.<sup>1</sup>

#### 2.2 Sample requirements

Our sample is constructed by pooling individual-level data from the 2005, 2010, 2015, and 2021 waves of the EWCS. We restrict the sample to individuals who are in paid employment (either as employees or self-employed), aged 18–65, and who provide complete information on all key variables required for the analysis. Respondents with missing data on telework status, employment characteristics, or sociodemographic variables are excluded. After these restrictions, the final analytical sample consists of 98,029 individuals across 28 countries.

Table 1 shows the composition of the sample. The number of observations per country and wave varies, reflecting both population size and national sampling designs. For example, Belgium, Spain, and France each contribute more than 5,000 observations to the total sample, while smaller countries such as Malta, Cyprus, and Luxembourg have between 2,500 and 2,800 cases each over all years. Sample sizes per wave range from 9,841 observations in 2005 to 30,862 in 2010, 30,363 in 2015, and 26,963 in 2021. This distribution

<sup>&</sup>lt;sup>1</sup> See <u>https://www.eurofound.europa.eu/en/surveys/european-working-conditions-surveys-ewcs.</u>

ensures broad geographic and temporal coverage, allowing for detailed analysis of telework patterns and their evolution across Europe before and after the COVID-19 pandemic. The presence of all major European regions is guaranteed, with substantial representation from both Western and Eastern European countries.

	Tat	ole I. Sample	e compositio	n	
Country	2005	2010	2015	2021	Total
Austria	243	839	915	831	2,828
Belgium	262	3,487	2,350	1,916	8,015
Bulgaria	453	877	963	774	3,067
Croatia	414	976	877	808	3,075
Cyprus	236	945	928	640	2,749
Czech Republic	256	822	847	931	2,856
Denmark	398	986	888	793	3,065
Estonia	284	826	834	783	2,727
Finland	405	928	911	898	3,142
France	230	2,701	1,432	1,498	5,861
Greece	629	943	927	849	3,348
Hungary	421	919	857	821	3,018
Ireland	229	886	924	797	2,836
Italy	329	1,260	1,126	1,457	4,172
Latvia	536	900	757	779	2,972
Lithuania	382	841	882	829	2,934
Luxembourg	193	841	949	608	2,591
Malta	252	897	942	657	2,748
Netherlands	259	942	904	792	2,897
Norway	403	980	872	1,452	3,707
Poland	513	1,143	863	1,300	3,819
Portugal	331	869	810	833	2,843
Romania	359	801	881	822	2,863
Slovakia	480	885	862	835	3,062
Slovenia	339	1,252	1,436	1,220	4,247
Spain	279	933	3,069	1,323	5,604
Sweden	537	879	919	786	3,121
United Kingdom	189	1,304	1,438	931	3,862
Total	9,841	30,862	30,363	26,963	98,029

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Note: the sample (EWCS) is restricted to employed respondents between 18-65 years with no missing information.

## 2.3 Variables

The main dependent variable is an indicator for working from home, defined according to respondents' answers on their daily commuting time during a regular day. Thus, we follow existing analyses (e.g., Giménez-Nadal et al., 2020) to identify WFH. This definition is also consistent with Pinsonneault and Boisvert (2001), Golden (2006), Kossek et al. (2006), Pearce (2009), and Morganson et al. (2010), and allows to compare teleworkers and commuters when surveys do not directly characterize WFH practices or frequency.

Additional variables describe work characteristics and sociodemographic factors, including: gender (female/male), age (in years), education (primary, secondary, tertiary), occupation (classified using ISCO codes), employment status (employee or self-employed), contract type (permanent, temporary), full-time or part-time status, public sector or private sector, household composition (living alone, with partner, with children), weekly usual work hours, the ability to work with e-devices (never/rarely/sometimes/often/always), and the perceived work-family balance (very well/well/not very well/not at all well). All variables are harmonized across survey waves to ensure comparability over time and between countries.

Tables 2 and 3 show descriptives of the variables, by country. The percentage of male respondents ("% male") varies across countries, typically ranging from around 46% to 54%. For example, Austria has a male share of 47.5%, Belgium 51.5%, and Cyprus 53.6%. The average age of respondents is generally in the early to mid-40s: Austria shows a mean age of 42.9 years, Belgium 41.5, and Croatia 41.4, with only minor variation across countries. Regarding education, in Austria, 9.3% of individuals have basic education, 70.5% secondary, and 20.2% university-level. In Belgium, the share with only basic education is higher (14.2%), and the proportion with a university degree is considerably larger (43.4%). In general, countries such as Cyprus and Belgium display higher shares of university-educated individuals, while others like Croatia have a larger proportion with only secondary education.

The variable "% in couple" measures the share of respondents living with a partner. This proportion ranges from around 65% (Austria) to nearly 70% (Bulgaria). The average family size is typically between 2.7 and 3.3 persons per household. For example, Croatia has a family size mean of 3.3, while Austria's average is 2.7. The average number of children per household ranges from 0.75 (Austria) to about 0.98 (Cyprus), indicating that most households in the sample are either childless or have one child.

				5				
Country			Basic	Second.	Univ.	% in	Family	#
	% male	Age	edu.	Edu.	edu.	couple	size	children
Austria	0.475	42.871	0.093	0.705	0.202	0.655	2.720	0.757
Belgium	0.515	41.471	0.142	0.424	0.434	0.680	2.928	0.974
Bulgaria	0.465	43.085	0.104	0.564	0.332	0.703	3.018	0.765
Croatia	0.472	41.443	0.189	0.541	0.270	0.673	3.318	0.974
Cyprus	0.536	40.435	0.148	0.393	0.459	0.688	3.135	0.981
Czech Rep.	0.462	42.157	0.090	0.671	0.239	0.682	2.762	0.747
Denmark	0.510	44.121	0.083	0.431	0.486	0.736	2.804	0.899
Estonia	0.376	43.547	0.208	0.423	0.370	0.640	2.713	0.794
Finland	0.459	44.423	0.083	0.482	0.435	0.638	2.506	0.751
France	0.466	41.466	0.108	0.474	0.417	0.634	2.738	0.885
Greece	0.591	41.422	0.213	0.389	0.398	0.640	2.965	0.850
Hungary	0.487	42.869	0.144	0.530	0.326	0.658	2.897	0.807
Ireland	0.529	41.958	0.136	0.395	0.469	0.651	3.106	0.975
Italy	0.521	43.707	0.198	0.550	0.251	0.640	2.896	0.736
Latvia	0.385	43.019	0.069	0.533	0.398	0.630	2.799	0.771
Lithuania	0.393	43.270	0.051	0.472	0.477	0.666	2.644	0.710
Luxembourg	0.525	41.262	0.230	0.374	0.396	0.672	3.032	1.043
Malta	0.589	40.746	0.396	0.288	0.316	0.631	3.318	0.919
Netherlands	0.515	44.242	0.206	0.344	0.450	0.682	2.767	0.863
Norway	0.488	43.991	0.059	0.376	0.565	0.717	2.878	0.929
Poland	0.472	40.853	0.046	0.556	0.397	0.670	3.097	0.891
Portugal	0.458	42.885	0.497	0.261	0.242	0.692	2.909	0.741
Romania	0.513	41.302	0.105	0.585	0.311	0.728	3.134	0.786
Slovakia	0.462	42.893	0.027	0.690	0.283	0.654	3.061	0.917
Slovenia	0.469	41.753	0.068	0.579	0.353	0.686	3.292	0.993
Spain	0.512	41.939	0.258	0.435	0.307	0.637	2.885	0.747
Sweden	0.486	45.715	0.066	0.467	0.467	0.668	2.672	0.846
UK	0 509	43 052	0 355	0 220	0 425	0.669	2 780	0 789

Table 2. Summary statistics: demographics

Note: the sample (EWCS) is restricted to employed respondents between 18-65 years with no missing information.

The percentage of self-employed individuals ("% nself-employed") varies, with values like 11.3% in Austria and 17.6% in Cyprus. Permanent (indefinite) contracts are most common in most countries: Austria (77.5%), Belgium (76.3%), and Bulgaria (71.2%). Some countries have considerably lower shares of permanent contracts, such as Cyprus at 46.1%. The percentage of full-time workers is above 70% in most countries, for example, 71.4% in Austria and 73.8% in Belgium, but is notably higher in Croatia (91.4%) and Bulgaria (88.9%). Public sector employment ("% public worker") also shows some variation. In Austria, 21.4% of respondents are public workers, in Belgium 25.8%, and in Croatia 31.5%. Mean weekly working hours ("Work hours") hover around standard full-time levels, from 37.5 hours in Austria to over 42 in Bulgaria and Croatia.

The share of workers performing at least some work from home ("% work from home") ranges from just over 6% in Cyprus to more than 11% in Austria. This indicates substantial cross-country differences in telework prevalence before and during the COVID-19 pandemic. The variable "Works with e-devices" captures the average intensity of using electronic devices for work, with scores ranging from about 2.6 in Bulgaria to 3.3 in Belgium, reflecting the degree of digitalization of the workforce. Finally, the average score on work-family balance (with higher scores indicating more frequent conflict or imbalance, depending on coding) ranges from 1.7 in Austria to around 2.0 in Bulgaria, with most countries lying between these values. This suggests some cross-country variation in perceived work-life balance, although the means are relatively close.

Country			j	F	- J	% work	Works	Work-
•	% nself-	% indef.	% full	% public	Work	from	with e-	family
	employed	Contract	time	worker	hours	home	devices	balance
	· · ·							
Austria	0.113	0.775	0.714	0.214	37.480	0.116	3.277	1.699
Belgium	0.119	0.763	0.738	0.258	37.662	0.105	3.343	1.826
Bulgaria	0.133	0.712	0.890	0.267	42.185	0.074	2.591	2.002
Croatia	0.115	0.732	0.914	0.315	42.049	0.085	3.144	1.910
Cyprus	0.176	0.461	0.868	0.175	40.224	0.062	3.004	1.880
Czech Rep.	0.137	0.699	0.891	0.245	41.678	0.075	3.047	1.921
Denmark	0.078	0.796	0.792	0.376	37.731	0.077	3.579	1.591
Estonia	0.078	0.817	0.869	0.294	40.125	0.084	3.109	1.891
Finland	0.116	0.746	0.861	0.356	38.254	0.106	3.350	1.839
France	0.106	0.740	0.815	0.240	37.027	0.130	3.237	1.967
Greece	0.322	0.434	0.878	0.151	44.812	0.064	2.569	2.207
Hungary	0.128	0.749	0.893	0.274	41.485	0.122	2.889	2.061
Ireland	0.159	0.605	0.729	0.284	37.446	0.162	3.321	1.778
Italy	0.223	0.617	0.800	0.227	37.738	0.104	3.036	2.129
Latvia	0.084	0.776	0.878	0.356	40.522	0.067	2.802	2.105
Lithuania	0.098	0.805	0.877	0.308	40.309	0.078	2.813	2.026
Luxembourg	0.095	0.811	0.778	0.311	39.104	0.086	3.451	1.892
Malta	0.117	0.597	0.887	0.314	40.585	0.051	3.051	1.914
Netherlands	0.129	0.702	0.610	0.215	34.268	0.106	3.554	1.838
Norway	0.066	0.840	0.802	0.407	38.167	0.106	3.773	1.707
Poland	0.168	0.599	0.854	0.263	41.885	0.157	2.896	1.986
Portugal	0.162	0.630	0.883	0.199	40.742	0.073	2.682	2.046
Romania	0.134	0.788	0.881	0.262	42.821	0.138	2.501	1.874
Slovakia	0.129	0.719	0.898	0.265	41.974	0.072	2.938	1.956
Slovenia	0.103	0.756	0.897	0.343	40.854	0.072	3.336	2.018
Spain	0.152	0.580	0.801	0.185	38.063	0.081	2.906	2.025
Sweden	0.077	0.820	0.816	0.417	39.830	0.088	3.609	1.806
UK	0.132	0.742	0.737	0.302	37.593	0.166	3.455	1.787

Table 3. Summary statistics: employment characteristics

Note: the sample (EWCS) is restricted to employed respondents between 18-65 years with no missing information.

# 3. Trends of work from home

Table 4 shows the trends in WFH across European countries, from 2005 to 2021:

- Austria: WFH steadily increased from 6.6% in 2005 to 15.5% in 2021. Women: Initial decrease from 8.3% (2005) to 7.1% (2010), followed by an increase to 16.2% in 2021. Men: Consistent rise from 5.2% (2005) to 14.9% (2021).
- Belgium: Sharp increase from 1.9% in 2005 to 21.9% in 2021. Women: Rose significantly from 1.4% in 2005 to 21.8% in 2021. Men: Notable increase from 2.6% (2005) to 21.9% (2021).
- Bulgaria: Gradual increase from 2.9% (2005) to 17.2% (2021). Women: Growth from 3.5% to 14.1%. Men: Increase from 2.1% to 19.9%, more pronounced compared to women.
- Croatia: Clear increase from 1.4% in 2005 to 11.6% in 2021. Women: Grew from 1.3% to 10.5%. Men: Increased notably from 1.6% to 13.2%.
- Cyprus: Moderate increase from 3.8% in 2005 to 9.1% in 2021. Women: Rose from 2.2% to 8.8%. Men: Slightly increased from 4.8% to 9.3%.
- Czech Republic: Rise from 4.7% in 2005 to 13.2% in 2021. Women: Consistent but modest increase from 2.6% to 11.6%. Men: More significant increase from 6.4% to 15.2%.
- Denmark: Increased from 5.8% (2005) to 14.8% (2021). Women: Initial decline, then rose to 13.0% by 2021. Men: Overall increase from 4.5% to 16.2%.
- Estonia: Sharp increase from 1.4% (2005) to 18.9% (2021). Women: Substantial rise from 1.7% to 18.1%. Men: Noticeable increase from 0.9% to 20.2%.
- Finland: Significant growth from 3.0% in 2005 to 23.8% in 2021. Women: Grew from 3.0% to 23.5%. Men: Increased from 2.9% to 24.1%.
- France: Increased from 2.2% (2005) to 18.4% (2021). Women: Growth from 2.4% to 18.1%. Men: Increase from 1.9% to 18.6%.

- Greece: Rose from 3.3% (2005) to 15.3% (2021). Women: Fluctuated but eventually rose from 6.2% to 15.9%. Men: Clear increase from 1.6% to 14.9%.
- Hungary: Major increase from 5.7% in 2005 to 24.5% in 2021. Women: Rose significantly from 4.0% to 25.5%. Men: Steady growth from 7.2% to 23.4%.
- Ireland: Dramatic rise from 10.5% (2005) to 36.1% (2021). Women: Increased from 5.4% to 34.6%. Men: Sharp increase from 14.0% to 37.4%.
- Italy: From 0% in 2005 to 19.0% in 2021. Women: Grew from 0% to 18.5%. Men: Increased notably from 0% to 19.4%.
- Latvia: Increase from 0% (2005) to 18.7% (2021). Women: Rose to 21.1% by 2021.
   Men: Increased to 15.5% by 2021.
- Lithuania: Rose from 1.0% to 18.6% (2005-2021). Women: Grew from 1.3% to 17.8%.
   Men: Increased from 0.6% to 19.8%.
- Luxembourg: Moderate rise from 1.0% to 19.2% (2005-2021). Women: Increased from 1.2% to 19.6%. Men: Rose from 0.9% to 18.9%.
- Malta: Growth from 1.6% in 2005 to 12.5% in 2021. Women: Rose from 1.2% to 12.5%.
   Men: Increased from 1.8% to 12.5%.
- Netherlands: Significant growth from 1.9% (2005) to 26.5% (2021). Women: Grew from 4.1% to 26.6%. Men: Increased sharply from 0% to 26.5%.
- Norway: Increased from 4.2% to 21.4% (2005-2021). Women: Rose from 3.3% to 20.9%. Men: Increased from 5.3% to 21.9%.
- Poland: Strong growth from 11.5% (2005) to 23.0% (2021). Women: Increased from 8.3% to 20.7%. Men: Grew from 15.3% to 25.3%.
- Portugal: Growth from 0.3% to 14.2% (2005-2021). Women: Increased to 9.6%. Men: Rose more notably to 19.0%.
- Romania: Rose from 5.3% to 22.7% (2005-2021). Women: Increased from 4.6% to 23.3%. Men: Grew from 6.1% to 22.2%.

- Slovakia: Significant increase from 0.6% (2005) to 18.0% (2021). Women: Rose from 0.4% to 17.6%. Men: Increased from 0.8% to 18.4%.
- Slovenia: Increased from 6.8% to 11.1% (2005-2021). Women: Rose from 6.6% to 11.5%. Men: Grew from 7.0% to 10.7%.
- Spain: Increase from 0% (2005) to 19.3% (2021). Women: Rose from 0% to 19.7%.
   Men: Increased from 0% to 19.0%.
- Sweden: Increased from 3.0% (2005) to 23.4% (2021). Women: Rose from 2.3% to 23.1%. Men: Increased from 3.7% to 23.7%.
- United Kingdom: Sharp increase from 4.8% to 44.6% (2005-2021). Women: Grew from 2.2% to 43.4%. Men: Increased from 7.3% to 45.6%.

## 3.1 Grouping of Trends

Analysis of country-level WFH trends reveals several distinct groups. The first group consists of countries with very high increases in the prevalence of working from home between 2005 and 2021, reaching values above 20% in 2021. This group includes the United Kingdom, Ireland, the Netherlands, Finland, Sweden, Belgium, Estonia, Hungary, Norway, Poland, and Lithuania. In these countries, the expansion of telework accelerated particularly sharply in the last wave, coinciding with the COVID-19 pandemic, but the growth was already visible in previous periods for some, such as Ireland and the United Kingdom.

A second group includes countries where WFH also increased significantly, but the 2021 rates remain between 15% and 20%. This includes Austria, France, Bulgaria, Czech Republic, Denmark, Greece, Italy, Latvia, Luxembourg, Romania, Slovakia, and Spain. In these countries, adoption of telework was more gradual or started from a lower base, but the pandemic prompted a strong rise, even though levels did not reach the highest group.

The third group comprises countries where WFH rates in 2021 are still relatively low, typically between 10% and 15%. This group includes Croatia, Cyprus, Malta, Portugal, and Slovenia. For these countries, the prevalence of telework remains modest despite some increase in the last decade and a clear uptick during the pandemic. Additionally, several

countries (such as Portugal, Italy, and Spain) exhibited almost no WFH before 2010, with values close to zero in 2005, followed by a pronounced but delayed increase, concentrated in the last wave. Gender differences in trends are generally small across countries, with WFH growing in parallel for both men and women. However, in some countries, men experienced slightly greater increases, while in others (e.g., Latvia and Hungary) women overtook men in the most recent wave.

Country		2005	2010	2015	2021
Country	group	2003	2010	2013	2021
Austria	nool	0.066	0.093	0 1 1 4	0 1 5 5
Austria	women	0.000	0.073	0.103	0.155
	men	0.085	0.071	0.103	0.102
Belgium	nool	0.032	0.117	0.127	0.14)
Deigiuili	poor	0.019	0.075	0.007	0.219
	men	0.014	0.00	0.000	0.218
Bulgaria	nool	0.020	0.085	0.008	0.219
Dulgalla	women	0.029	0.043	0.045	0.172 0.141
	men	0.035	0.051	0.056	0.141
Croatia	neel	0.021	0.039	0.030	0.199
Cittatia	poor	0.014	0.084	0.091	0.110
	wonnen	0.015	0.038	0.088	0.103
Cummia	maal	0.010	0.109	0.093	0.152
Cyprus	poor	0.038	0.063	0.040	0.091
	women	0.022	0.003	0.044	0.088
Ch Dhli-		0.048	0.004	0.049	0.095
Czech Republic	роог	0.047	0.051	0.045	0.132
	women	0.026	0.04	0.039	0.110
	men	0.064	0.064	0.052	0.152
Denmark	pool	0.058	0.059	0.043	0.148
	women	0.068	0.029	0.034	0.13
<b>D</b> / ·	men	0.045	0.088	0.051	0.162
Estonia	pool	0.014	0.035	0.056	0.189
	women	0.017	0.028	0.059	0.181
	men	0.009	0.048	0.053	0.202
Finland	pool	0.03	0.041	0.077	0.238
	women	0.03	0.022	0.072	0.235
	men	0.029	0.066	0.082	0.241
France	pool	0.022	0.137	0.078	0.184
	women	0.024	0.149	0.088	0.181
	men	0.019	0.121	0.068	0.186
Greece	pool	0.033	0.023	0.044	0.153
	women	0.062	0.018	0.062	0.159
	men	0.016	0.028	0.03	0.149
Hungary	pool	0.057	0.078	0.083	0.245
	women	0.04	0.064	0.091	0.255
	men	0.072	0.093	0.072	0.234
Ireland	pool	0.105	0.071	0.091	0.361
	women	0.054	0.055	0.044	0.346
	men	0.14	0.086	0.136	0.374

Table 4. Trends of work from home

Italy	pool	0	0.044	0.091	0.19
	women	0	0.041	0.072	0.185
	men	0	0.046	0.111	0.194
Latvia	pool	0	0.024	0.04	0.187
	women	0	0.02	0.043	0.211
	men	0	0.033	0.034	0.155
Lithuania	pool	0.01	0.042	0.042	0.186
	women	0.013	0.049	0.039	0.178
	men	0.006	0.029	0.046	0.198
Luxembourg	pool	0.01	0.065	0.052	0.192
U	women	0.012	0.059	0.046	0.196
	men	0.009	0.071	0.057	0.189
Malta	pool	0.016	0.026	0.033	0.125
	women	0.012	0.018	0.02	0.125
	men	0.018	0.03	0.042	0.125
Netherlands	pool	0.019	0.024	0.076	0.265
	women	0.041	0.021	0.084	0.266
	men	0	0.028	0.068	0.265
Norway	pool	0.042	0.036	0.034	0.214
rtornay	women	0.033	0.020	0.017	0.209
	men	0.053	0.051	0.054	0.209
Poland	pool	0.115	0.147	0.085	0.23
l'olulia	women	0.083	0.124	0.005	0.207
	men	0.153	0.124	0.071	0.253
Portugal	nool	0.003	0.048	0.058	0.142
rontugui	women	0.005	0.051	0.028	0.096
	men	0,006	0.045	0.048	0.090
Romania	nool	0.000	0.135	0.073	0.12
Komama	women	0.035	0.132	0.052	0.227
	men	0.040	0.132	0.007	0.233
Slovakia	nool	0.001	0.037	0.041	0.222
SIOvakia	women	0.000	0.028	0.041	0.176
	men	0.004	0.028	0.030	0.170
Slovenia	neel	0.008	0.048	0.047	0.134
Slovenna	poor	0.008	0.032	0.073	0.111
	women	0.000	0.019	0.037	0.113
C	men	0.07	0.040	0.093	0.107
Spain	роог	0	0.050	0.048	0.195
	women	0	0.058	0.041	0.197
C 1	men	0 02	0.034	0.054	0.19
Sweden	pool	0.03	0.042	0.04	0.234
	women	0.023	0.034	0.034	0.231
TT '4 1 TZ' 1	men	0.037	0.052	0.046	0.237
United Kingdom	pool	0.048	0.094	0.067	0.446
	women	0.022	0.077	0.067	0.434
	men	0.073	0.114	0.067	0.456

Note: the sample (EWCS) is restricted to employed respondents between 18-65 years with no missing information.

#### **3.2 Interpretation and Possible Explanations for Group Patterns**

The observed groupings likely reflect a combination of structural, institutional, and policy factors. In the group of countries with the highest increases and highest 2021 levels of telework, several share strong digital infrastructure, a large proportion of jobs in knowledge-intensive and services sectors, and widespread adoption of flexible work arrangements even prior to the pandemic. For example, Northern and Western European countries such as the Netherlands, Finland, Sweden, and the United Kingdom have long promoted digitalization, have high levels of computer and internet access, and benefit from occupational structures favorable to remote work. The pre-existing culture of flexible work, as well as employer and employee familiarity with telework practices, may have facilitated the transition during the pandemic, resulting in much higher WFH rates by 2021.

Countries in the intermediate group often faced structural or regulatory constraints. In Austria, France, or Italy, telework was less common before COVID-19 due to more traditional workplace cultures, lower digitalization in some sectors, and labor market regulations that did not prioritize remote arrangements. The pandemic led to a rapid rise in WFH, but these increases started from a lower base and did not reach the levels seen in the most digitally advanced countries. Some of these countries also have a larger share of employment in manufacturing or public sectors with lower telework feasibility.

The third group –countries with the lowest prevalence of WFH– includes several Southern and Eastern European countries with relatively limited digital infrastructure, lower rates of internet penetration, and economic structures dominated by occupations that are less compatible with remote work, such as agriculture, tourism, and manual services. Institutional inertia and a lack of investment in telework-enabling technologies may also have limited the spread of remote work, even during the pandemic. In these countries, WFH adoption accelerated only after 2015 and still lags behind Western and Northern Europe.

Finally, the very low baseline in countries such as Italy, Portugal, and Spain reflects not only economic structure but also regulatory barriers and cultural norms. In these cases, the explosive growth in WFH after 2015 and especially in 2021 is likely driven almost entirely by the pandemic, as legal and practical restrictions on telework were rapidly lifted out of necessity.

Across all groups, gender differences are limited and seem to follow overall national trends, suggesting that access to telework in most cases expanded broadly rather than being targeted to a specific subgroup. In some contexts, greater increases for men may reflect occupational segregation, while in others, women may have benefited more from remote work opportunities in sectors like education and administration. In summary, the heterogeneity in the evolution of telework across Europe appears to be driven by a mix of digital readiness, occupational structures, policy responses, and cultural factors, with the COVID-19 pandemic acting as a universal accelerator but amplifying pre-existing disparities.

# 4. Econometric analysis

### 4.1 Strategy

A regression-based econometric analysis offers substantial advantages over purely descriptive analysis when studying the trends of WFH. While descriptive statistics are useful for illustrating broad patterns and changes over time, they do not control for confounding factors or disentangle the separate effects of correlated variables. Regression models allow for the simultaneous consideration of multiple individual and job characteristics, thereby isolating the association between each explanatory variable and the probability of working from home, conditional on the other, including time trends. This approach helps to address issues of omitted variable bias and provides more accurate estimates of the relationships of interest, i.e., between WFH and time periods.

For a given person *i* and time period *t*, we estimate the following equation using OLS:

$$WFH_{it} = \beta_0 + \boldsymbol{\beta}'_X \boldsymbol{X}_{ict} + \delta_t + \varepsilon_{it},$$

where  $WFH_{it}$  represents the WFH status of *i*,  $X_{it}$  is a vector of demographic and employment-related controls, and  $\delta_t$  represents time fixed effects. We use the year 2005 as reference category and, then, coefficients associated to the years 2010, 2015 and 2021 represent the change in WFH with respect to the reference group (2005), net of observables. Finally, the term  $\varepsilon_{it}$  represents the error term. This equation is estimated separately for each country in the sample, we use the sample weights provided, and also robust standard errors to account for potential heteroskedasticity. The estimation results are shown in Table 5.

## 4.2 Results

#### WFH and worker demographics

A negative and significant association between being male and working from home is observed in the pooled sample (-0.5 percentage points, significant at 5%), Belgium (-1.4pp, 5%), France (-2.5pp, 1%), Greece (-2.1pp, 5%), Latvia (-2.2pp, 5%), Spain (-1.4pp, 10%), and the United Kingdom (-2.0pp, 10%). This suggests that, in these countries, women are more likely than men to work from home, holding other factors constant. Conversely, a positive and significant effect is found in Bulgaria (+2.0pp, 5%), indicating higher WFH prevalence among men. No significant gender effect is found in most other countries.

Age is positively and significantly associated with working from home in the pooled sample (+0.1pp per year, 1% significance) and in multiple countries: Austria, Belgium, Croatia, Denmark, France, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Norway, Poland, Sweden, and the United Kingdom (all at least 5% significance). The magnitude of the effect is consistently small but robust, implying that older workers are marginally more likely to telework across most European contexts. In Estonia, the effect is negative but only weakly significant (–0.1pp, 10%).

Secondary education (relative to the omitted category, basic education) has no significant association in the pooled sample or in most countries. Exceptions include negative and significant effects in Bulgaria (-3.4pp, 5%), Croatia (-2.6pp, 10%), Hungary (-6.7pp, 1%), Malta (-2.4pp, 5%), Slovakia (-2.2pp, 10%), and Slovenia (-3.8pp, 5%), where secondary education is associated with lower WFH probability. University education is positively and significantly associated with WFH in the pooled sample (+1.0pp, 1%) and in France (+0.9pp, 1%), Latvia (+2.4pp, 10%), Lithuania (+1.1pp, 10%), and Luxembourg (+3.4pp, 10%). Conversely, negative and significant effects are observed in Bulgaria (-6.7pp, 1%) and Hungary (-4.1pp, 10%).

The coefficient for living in a couple is not significant in the pooled sample nor in most countries. Significant negative effects are seen in Estonia (-2.2pp, 10%), Finland (-2.0pp, 10%), and the Netherlands (-2.7pp, 5%). A significant positive effect is found only in Croatia (+1.5pp, 10%). In Greece (-1.9pp, 10%), being in a couple is also associated with lower WFH probability. Generally, family size shows no significant effect in the pooled model or most countries. However, positive and significant associations are observed in Austria (+1.5pp, 10%), France (-0.8pp, 10%, negative effect), Estonia (+0.9pp, 10%), Netherlands (+1.9pp, 5%), and Sweden (+1.9pp, 5%). Negative effects are found in Croatia (-0.8pp, 10%), Slovenia (-0.5pp, 10%), Latvia (-1.4pp, 5%), and Malta (-1.0pp, 5%). In the pooled sample, the number of children is positively associated with WFH (+0.3pp, 10%). Significant positive effects are also found in France (+1.5pp, 5%), Latvia (+1.7pp, 5%), and Ireland (+0.7pp, 10%). A significant negative effect is found in Estonia (-1.3pp, 10%).

The self-employed have a substantially higher probability of working from home in all countries, and the effect is always strongly significant. In the pooled sample, being self-employed increases the likelihood of WFH by 17.2 percentage points (1% significance). The effect ranges from 8.0pp in Italy (1%) to as much as 31.8pp in Austria (1%), 24.4pp in Belgium (1%), 25.9pp in Denmark (1%), 24.5pp in Ireland (1%), 21.5pp in Croatia (1%), 20.7pp in Luxembourg (1%), and above 13pp in every single country. There are no exceptions or reversals: this is the most consistently strong predictor in the data.

Having an indefinite contract (versus a temporary one) is associated with a significantly lower probability of WFH in the pooled model (-2.3pp, 1%), in Austria (-3.7pp, 5%), France (-4.7pp, 1%), Hungary (-3.9pp, 5%), Italy (-4.3pp, 1%), Norway (-4.0pp, 10%), Portugal (-2.2pp, 10%), Romania (-6.2pp, 1%), Slovenia (-2.1pp, 10%), and Sweden (-1.6pp, 10%). There are positive and significant effects only in Cyprus (+1.8pp, 10%). In most countries, indefinite contracts decrease the probability of telework.

Full-time employment is generally associated with a lower probability of WFH in the pooled model (-1.0pp, 1%), Belgium (-4.8pp, 1%), Bulgaria (-4.8pp, 1%), Croatia (-6.4pp, 1%), France (-3.1pp, 5%), Hungary (-6.4pp, 1%), and Slovenia (-3.4pp, 1%). Positive effects are rare and found only in Austria (+1.3pp, not significant), Finland (+3.0pp, 10%), and Malta (+0.7pp, 5%). Employment in the public sector is strongly and negatively

associated with WFH in almost all cases: pooled (-4.1pp, 1%), Austria (-3.4pp, 5%), Belgium (-1.7pp, 5%), Bulgaria (-2.4pp, 5%), Croatia (-3.9pp, 1%), France (-7.4pp, 1%), Hungary (-7.3pp, 1%), Ireland (-6.0pp, 1%), Italy (-4.7pp, 1%), Lithuania (-3.6pp, 1%), Netherlands (-1.0pp, 10%), Poland (-5.6pp, 1%), Portugal (-4.2pp, 1%), Romania (-4.3pp, 1%), Slovenia (-4.1pp, 1%), Spain (-6.5pp, 1%), Sweden (-3.3pp, 1%), and the United Kingdom (-6.8pp, 1%). There are no positive significant effects.

Work hours are positively associated with WFH in the pooled sample (+0.1pp per hour, 1%), Belgium (+0.2pp, 1%), Croatia (+0.1pp, 1%), Denmark (+0.2pp, 1%), Finland (+0.1pp, 1%), Ireland (+0.2pp, 1%), Lithuania (+0.1pp, 1%), Malta (+0.2pp, 1%), Poland (+0.1pp, 1%), Portugal (+0.1pp, 1%), Romania (+0.1pp, 5%), Slovakia (+0.2pp, 1%), Slovenia (+0.1pp, 10%), Spain (+0.2pp, 1%), and the United Kingdom (+0.2pp, 1%). Most significant effects are positive, though effect sizes are modest.

The index for working with electronic devices is positively and significantly related to WFH in the pooled model (+0.4pp, 1%), Bulgaria (+1.0pp, 5%), Czech Republic (+0.8pp, 10%), Denmark (+0.8pp, 10%), Finland (+0.8pp, 10%), Hungary (+0.9pp, 10%), Ireland (+1.5pp, 1%), Latvia (+1.5pp, 1%), Lithuania (+0.8pp, 10%), Malta (+0.7pp, 5%), Netherlands (+1.2pp, 1%), Poland (+1.3pp, 1%), Portugal (+0.8pp, 10%), Slovakia (+0.6pp, 10%), Slovenia (+0.1pp, 10%), Spain (+0.6pp, 5%), Sweden (+1.2pp, 5%), and the United Kingdom (+1.7pp, 1%). Negative effects appear only in France (-1.5pp, 1%), Estonia (-0.3pp, 10%), Luxembourg (-0.8pp, 5%). Finally, Higher work-family balance problems are associated with a significantly lower probability of WFH in the pooled model (-1.2pp, 1%), Austria (-1.8pp, 5%), Belgium (-0.8pp, 10%), Denmark (-1.9pp, 1%), Finland (-2.5pp, 1%), France (-3.1pp, 1%), Greece (+0.9pp, 10%), only positive effect), Hungary (-1.8pp, 5%), Latvia (-0.5pp, 10%), Netherlands (-0.3pp, 10%), Poland (-1.4pp, 5%), Portugal (-1.4pp, 5%), Romania (-0.2pp, 10%), Slovakia (-0.7pp, 10%), Slovenia (-0.2pp, 10%), Spain (-1.5pp, 1%), and Sweden (-0.2pp, 10%). Most significant effects are negative, showing that worse work-family balance is related to lower telework.

Table 5. Results I									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
VARIABLES	Pool	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Rep.		
						• •			
Male	-0.005**	-0.001	-0.014**	0.020**	0.003	-0.007	-0.002		
	(0.002)	(0.013)	(0.007)	(0.010)	(0.010)	(0.010)	(0.011)		
Age	0.001***	0.001**	0.001***	0.000	0.001**	0.000	-0.000		
-	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)		
Secondary edu.	-0.001	0.020	-0.011	-0.034**	-0.026*	0.023	0.012		
	(0.003)	(0.021)	(0.010)	(0.016)	(0.014)	(0.015)	(0.018)		
University edu.	0.010***	0.008	-0.006	-0.067***	-0.023	0.019	-0.013		
	(0.003)	(0.026)	(0.011)	(0.021)	(0.018)	(0.018)	(0.022)		
In couple	-0.003	-0.016	0.004	-0.003	0.015	-0.004	0.007		
	(0.002)	(0.014)	(0.008)	(0.011)	(0.011)	(0.011)	(0.011)		
Family size	-0.001	0.015*	-0.008*	0.002	-0.008*	-0.004	-0.006		
	(0.001)	(0.008)	(0.005)	(0.006)	(0.005)	(0.005)	(0.007)		
# children	0.003*	-0.010	0.005	-0.006	0.004	0.005	0.001		
	(0.001)	(0.009)	(0.005)	(0.008)	(0.006)	(0.006)	(0.008)		
Self-employed	0.172***	0.318***	0.244***	0.120***	0.215***	0.152***	0.171***		
	(0.004)	(0.026)	(0.014)	(0.018)	(0.019)	(0.014)	(0.018)		
Indef. Contract	-0.023***	-0.037**	-0.003	-0.020	-0.030**	0.018*	-0.011		
	(0.003)	(0.018)	(0.010)	(0.013)	(0.013)	(0.010)	(0.013)		
Full time	-0.010***	0.013	0.005	-0.048***	-0.064***	-0.058***	-0.036**		
	(0.003)	(0.016)	(0.008)	(0.016)	(0.018)	(0.015)	(0.017)		
Public sector	-0.041***	-0.034**	-0.017**	-0.024**	-0.039***	-0.021	-0.022*		
	(0.002)	(0.015)	(0.008)	(0.012)	(0.011)	(0.013)	(0.012)		
Work hours	0.001***	0.000	0.002***	0.001*	0.001***	-0.000	0.001		
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)		
Works with e-dev.	0.004***	-0.004	-0.001	0.010**	-0.000	-0.002	0.008*		
	(0.001)	(0.005)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)		
Work-famikly bal.	-0.012***	-0.018**	-0.008*	-0.006	-0.007	-0.006	-0.004		
	(0.001)	(0.008)	(0.004)	(0.006)	(0.006)	(0.005)	(0.007)		
Constant	0.006	-0.053	-0.104*	-0.008	0.161***	0.045	0.013		
	(0.016)	(0.095)	(0.059)	(0.070)	(0.061)	(0.055)	(0.099)		
Country effects	Yes	No	No	No	No	No	No		
Occupation effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Year effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	98,029	2,828	8,015	3,067	3,075	2,749	2,856		
R-squared	0.126	0.185	0.140	0.110	0.232	0.070	0.095		

Table 6. Results II									
	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
VARIABLES	Denmark	Estonia	Finland	France	Greece	Hungary	Ireland		
Male	0.007	-0.001	0.003	-0.025***	-0.021**	-0.014	-0.005		
	(0.010)	(0.012)	(0.012)	(0.009)	(0.009)	(0.012)	(0.014)		
Age	0.002***	-0.001*	0.000	0.002***	0.001	0.000	0.001		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)		
Secondary edu.	-0.006	-0.010	-0.012	-0.002	0.015	0.009	-0.067***		
	(0.018)	(0.015)	(0.020)	(0.015)	(0.013)	(0.019)	(0.020)		
University edu.	-0.010	-0.005	-0.002	0.009	0.033**	0.016	-0.041*		
	(0.020)	(0.017)	(0.022)	(0.017)	(0.015)	(0.024)	(0.023)		
In couple	-0.012	-0.022*	-0.002	0.006	-0.019*	-0.001	-0.005		
	(0.013)	(0.012)	(0.015)	(0.010)	(0.010)	(0.013)	(0.014)		
Family size	0.012	0.009	0.011	-0.008	0.003	-0.006	-0.008		
	(0.008)	(0.008)	(0.011)	(0.006)	(0.005)	(0.007)	(0.008)		
# children	-0.004	-0.013	-0.011	0.015**	-0.001	0.008	0.007		
	(0.009)	(0.009)	(0.012)	(0.007)	(0.006)	(0.008)	(0.009)		
Self-employed	0.259***	0.153***	0.183***	0.171***	0.017	0.215***	0.245***		
	(0.022)	(0.025)	(0.023)	(0.018)	(0.013)	(0.024)	(0.022)		
Indef. Contract	0.010	-0.033**	-0.000	-0.047***	-0.036***	-0.039**	-0.014		
	(0.014)	(0.017)	(0.016)	(0.012)	(0.011)	(0.018)	(0.016)		
Full time	-0.007	-0.036**	0.030*	-0.031**	-0.020	-0.064***	0.007		
	(0.013)	(0.017)	(0.017)	(0.012)	(0.014)	(0.020)	(0.017)		
Public sector	-0.004	-0.034***	-0.042***	-0.074***	-0.019	-0.073***	-0.060***		
	(0.011)	(0.012)	(0.012)	(0.010)	(0.013)	(0.014)	(0.014)		
Work hours	0.002***	-0.000	0.001	0.003***	-0.000	0.001	0.002***		
	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)		
Works with e-dev.	-0.003	0.013***	0.008	-0.015***	0.002	0.009*	0.015***		
	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)	(0.005)		
Work-famikly bal.	-0.019***	-0.012*	-0.025***	-0.031***	0.009*	-0.018**	-0.011		
	(0.007)	(0.007)	(0.007)	(0.005)	(0.005)	(0.008)	(0.008)		
~		0 <b>0</b> 0 0 4 4		0.404	0.0 <b>0</b> .0		0.0.60		
Constant	-0.155*	0.208**	-0.086	0.106	0.026	0.080	-0.069		
	(0.089)	(0.088)	(0.088)	(0.078)	(0.055)	(0.096)	(0.130)		
Country effects	Yes	No	No	No	No	No	No		
Occupation effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Year effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	3 065	2 777	3 1 1 7	5 861	3 248	3 0 1 8	2 826		
R-squared	0.129	0.123	0.145	0 102	0.066	0.154	0.261		

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Table 7. Results III									
VARIABLES         Iaty         Latvia         Lithuania         Luxembourg         Mata         Netherlands         Norway           Male         0.006         -0.022**         -0.012         -0.017         -0.000         -0.015         -0.001           Age         0.001***         -0.000         0.000         0.001***         -0.001         0.001***         0.001           Secondary edu.         0.006         -0.004         -0.008         -0.012         (0.010)         (0.016)         (0.022)           University edu.         0.015         0.024         0.011         0.034*         0.010         -0.031           (0.018)         (0.020)         (0.024)         (0.018)         (0.023)         -0.011         -0.027***         -0.009           In couple         -0.002         0.015         0.022         -0.012         0.010         -0.027**         -0.009           (0.011)         (0.020)         (0.024)         (0.018)         (0.019**         0.011           family size         -0.002         -0.014**         0.002         -0.012         0.010         -0.014*         -0.007           family size         -0.002         -0.014**         0.003         (0.005)         (0.008)         <		(15)	(16)	(17)	(18)	(19)	(20)	(21)		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	VARIABLES	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Norway		
Male         0.006         -0.022**         -0.012         -0.017         -0.000         -0.015         -0.001           Age         0.001***         -0.000         0.000         0.002***         -0.001         0.001***         0.001***           Age         0.000         (0.000)         (0.000)         (0.000)         (0.000)         0.000           Secondary edu.         0.006         -0.004         -0.008         -0.014         -0.024**         -0.005         -0.040*           (0.014)         (0.018)         (0.022)         (0.015)         (0.012)         (0.016)         (0.023)           University edu.         0.015         0.024         0.011         0.034*         0.010         -0.031           In couple         -0.002         0.015         0.002         -0.012         0.010         -0.017*         (0.023)           In couple         -0.002         0.015         0.002         -0.012         0.010         -0.017*         -0.009           In couple         -0.002         0.015         0.002         -0.012         0.010         0.019**         -0.009           Indiden         0.002         0.011*         0.010*         0.010***         0.008         0.007		*						•		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Male	0.006	-0.022**	-0.012	-0.017	-0.000	-0.015	-0.001		
Age $0.001^{***}$ $-0.000$ $0.000$ $0.002^{***}$ $-0.001$ $0.001^{***}$ $0.001^{***}$ $0.001^{***}$ $0.001^{***}$ $0.001^{***}$ $0.000$ $(0.000)$ $(0.011)$ $(0.012)$ $(0.013)$ $(0.017)$ $(0.023)$ In couple $-0.002$ $-0.015$ $0.002$ $-0.012$ $0.010$ $-0.027^{**}$ $-0.009$ $(0.011)$ $(0.011)$ $(0.011)$ $(0.011)$ $(0.011)$ $(0.012)$ $(0.010)$ $(0.014)$ $(0.012)$ Family size $-0.002$ $-0.014^{**}$ $0.002$ $-0.003$ $-0.016^{**}$ $0.019^{**}$ $0.011$ $(0.005)$ $(0.006)$ $(0.006)$ $(0.005)$ $(0.008)$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.008)$ Self-employed $0.080^{***}$ $0.091^{***}$ $0.022^{*}$ $(0.015)$ $(0.012)$ $(0.021)$ $(0.024)$ Indef. Contract $-0.043^{***}$ $-0.023^{***}$ $-0.024^{***}$ $-0.004$ $0.002$ $(0.014)$ $(0.015)$ $(0.014)$ $(0.015)$ $(0.017)$ $(0.017)$ Full time $-0.001$ $-0.047^{***}$ $-0.023^{***}$ $-0.004$		(0.010)	(0.010)	(0.010)	(0.011)	(0.009)	(0.013)	(0.011)		
$ (0.000)$ $(0.000)$ $(0.001)$ $(0.000)$ $(0.000)$ $(0.000)$ Secondary edu. $0.006$ $-0.004$ $-0.008$ $-0.014$ $-0.024^{**}$ $-0.005$ $-0.040^{*}$ University edu. $(0.014)$ $(0.018)$ $(0.022)$ $(0.015)$ $(0.012)$ $(0.016)$ $(0.022)$ University edu. $(0.018)$ $(0.020)$ $(0.024)$ $(0.018)$ $(0.013)$ $(0.017)$ $(0.023)$ In couple $-0.002$ $0.015$ $0.002$ $-0.012$ $(0.010)$ $(0.014)$ $(0.012)$ Family size $-0.002$ $-0.014^{**}$ $0.002$ $-0.003$ $-0.010^{**}$ $0.011$ $(0.005)$ $(0.006)$ $(0.008)$ $(0.006)$ $(0.008)$ $(0.007)$ # children $0.006$ $0.017^{**}$ $-0.009$ $-0.003$ $-0.014^{**}$ $-0.007$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.008)$ $(0.008)$ $(0.007)$ # children $0.006$ $0.017^{**}$ $-0.009$ $-0.003$ $0.002$ $-0.014$ $-0.007$ $(0.007)$ $(0.007)$ $(0.007)$ $(0.006)$ $(0.008)$ $(0.007)$ $(0.008)$ $(0.007)$ Self-employed $0.080^{***}$ $0.091^{***}$ $0.188^{***}$ $0.207^{***}$ $0.138^{***}$ $0.200^{***}$ $(0.017)$ $(0.020)$ $(0.022)$ $(0.025)$ $(0.015)$ $(0.021)$ $(0.026)$ Indef. Contract $-0.043^{***}$ $-0.023^{**}$ $0.004^{**}$ $0.004$ $(0.001)$ $(0.014)$	Age	0.001***	-0.000	0.000	0.002***	-0.001	0.001***	0.001***		
	-	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)		
	Secondary edu.	0.006	-0.004	-0.008	-0.014	-0.024**	-0.005	-0.040*		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.014)	(0.018)	(0.022)	(0.015)	(0.012)	(0.016)	(0.022)		
$ \begin{array}{c cccc} (0.018) & (0.020) & (0.024) & (0.018) & (0.013) & (0.017) & (0.023) \\ \hline In \ couple & -0.002 & 0.015 & 0.002 & -0.012 & 0.010 & -0.027** & -0.009 \\ \hline (0.011) & (0.010) & (0.011) & (0.012) & (0.010) & (0.014) & (0.012) \\ \hline Family \ size & -0.002 & -0.014** & 0.002 & -0.003 & -0.010** & 0.019** & 0.011 \\ \hline (0.005) & (0.006) & (0.008) & (0.006) & (0.005) & (0.008) & (0.007) \\ \hline t \ children & 0.006 & 0.017** & -0.009 & -0.003 & 0.002 & -0.014 & -0.007 \\ \hline (0.007) & (0.007) & (0.009) & (0.007) & (0.006) & (0.009) & (0.008) \\ \hline Self-employed & 0.080*** & 0.091*** & 0.188*** & 0.207*** & 0.138*** & 0.183*** & 0.200*** \\ \hline (0.017) & (0.020) & (0.022) & (0.025) & (0.015) & (0.021) & (0.026) \\ \hline Indef. \ Contract & -0.043*** & -0.044*** & -0.023 & -0.042** & -0.004 & 0.004 & 0.002 \\ \hline (0.014) & (0.013) & (0.016) & (0.018) & (0.010) & (0.015) & (0.017) \\ \hline Full time & -0.001 & -0.018 & -0.047*** & 0.009 & -0.005 & -0.005 & -0.003 \\ \hline (0.014) & (0.015) & (0.015) & (0.014) & (0.014) & (0.014) \\ \hline Public sector & -0.047*** & -0.033*** & -0.036*** & -0.022 & 0.001 & -0.010 & -0.047*** \\ \hline (0.013) & (0.010) & (0.011) & (0.011) & (0.010) & (0.013) & (0.011) \\ \hline Work hours & 0.000 & 0.000 & 0.000 & 0.003*** & -0.000 & 0.001 & 0.001** \\ \hline (0.000) & (0.000) & (0.000) & (0.001) & (0.000) & (0.001) & (0.001) \\ \hline Works with e-dev. & 0.08** & 0.015*** & 0.008* & -0.008** & 0.007** & 0.012*** & 0.009* \\ \hline (0.004) & (0.004) & (0.004) & (0.004) & (0.004) & (0.003) & (0.005) \\ \hline Work-famikly bal. & -0.057 & 0.008 & 0.042 & -0.205* & 0.052 & -0.172 & -0.117 \\ \hline (0.072) & (0.082) & (0.087) & (0.113) & (0.019) & (0.109) & (0.008) \\ \hline Country effects & Yes & Nes & No & No & No & No \\ \hline Occupation effects & Yes \\ \hline \end{array}$	University edu.	0.015	0.024	0.011	0.034*	0.010	0.032*	-0.031		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.018)	(0.020)	(0.024)	(0.018)	(0.013)	(0.017)	(0.023)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	In couple	-0.002	0.015	0.002	-0.012	0.010	-0.027**	-0.009		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.011)	(0.010)	(0.011)	(0.012)	(0.010)	(0.014)	(0.012)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Family size	-0.002	-0.014**	0.002	-0.003	-0.010**	0.019**	0.011		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.005)	(0.006)	(0.008)	(0.006)	(0.005)	(0.008)	(0.007)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	# children	0.006	0.017**	-0.009	-0.003	0.002	-0.014	-0.007		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.007)	(0.007)	(0.009)	(0.007)	(0.006)	(0.009)	(0.008)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Self-employed	0.080***	0.091***	0.188***	0.207***	0.138***	0.183***	0.200***		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.017)	(0.020)	(0.022)	(0.025)	(0.015)	(0.021)	(0.026)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Indef. Contract	-0.043***	-0.044***	-0.023	-0.042**	-0.004	0.004	0.002		
Full time $-0.001$ $-0.018$ $-0.047^{***}$ $0.009$ $-0.005$ $-0.005$ $-0.003$ Public sector $-0.047^{***}$ $-0.033^{***}$ $-0.036^{***}$ $-0.022^{*}$ $0.001$ $-0.010$ $-0.047^{***}$ $(0.013)$ $(0.010)$ $(0.011)$ $(0.011)$ $(0.010)$ $(0.013)$ $(0.011)$ Work hours $0.000$ $0.000$ $0.000$ $0.003^{***}$ $-0.000$ $0.001$ Work swith e-dev. $0.008^{**}$ $0.015^{***}$ $0.008^{**}$ $0.007^{**}$ $0.012^{***}$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.003)$ $(0.005)$ $(0.005)$ Work-famikly bal. $-0.005$ $-0.007$ $0.005$ $-0.010^{*}$ $-0.019^{***}$ $(0.006)$ $(0.006)$ $(0.007)$ $(0.007)$ $(0.005)$ $(0.008)$ Work-famikly bal. $-0.057$ $0.008$ $0.042$ $-0.205^{*}$ $0.052$ $-0.172$ $(0.072)$ $(0.082)$ $(0.087)$ $(0.113)$ $(0.049)$ $(0.109)$ $(0.084)$ Country effectsYesYesYesYesYesYesYesYes		(0.014)	(0.013)	(0.016)	(0.018)	(0.010)	(0.015)	(0.017)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Full time	-0.001	-0.018	-0.047***	0.009	-0.005	-0.005	-0.003		
Public sector $-0.047^{***}$ $-0.033^{***}$ $-0.036^{***}$ $-0.022^{*}$ $0.001$ $-0.010$ $-0.047^{***}$ (0.013)(0.010)(0.011)(0.011)(0.010)(0.013)(0.011)Work hours0.0000.0000.0000.003^{***} $-0.000$ 0.0010.001Works with e-dev.0.008**0.015^{***}0.008**0.007^{***} $0.002^{***}$ 0.009*Work-famikly bal0.001-0.0047***0.008**0.007^{***} $0.012^{***}$ 0.009*Work-famikly bal0.001-0.005-0.0070.005-0.010*-0.003-0.019^{***}(0.006)(0.006)(0.007)(0.007)(0.005)(0.008)(0.007)Constant-0.0570.0080.042-0.205*0.052-0.172-0.117(0.072)(0.082)(0.087)(0.113)(0.049)(0.109)(0.084)Country effectsYesYesYesYesYesYesYes		(0.014)	(0.015)	(0.015)	(0.014)	(0.015)	(0.014)	(0.014)		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Public sector	-0.047***	-0.033***	-0.036***	-0.022*	0.001	-0.010	-0.047***		
Work hours $0.000$ $0.000$ $0.000$ $0.003^{***}$ $-0.000$ $0.001$ $0.001^{**}$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.001)$ $(0.000)$ $(0.001)$ $(0.001)$ $(0.001)$ Works with e-dev. $0.008^{**}$ $0.015^{***}$ $0.008^{**}$ $0.007^{**}$ $0.012^{***}$ $0.009^{*}$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.003)$ $(0.005)$ $(0.005)$ Work-famikly bal. $-0.001$ $-0.005$ $-0.007$ $0.005$ $-0.010^{*}$ $-0.003$ $-0.019^{***}$ $(0.006)$ $(0.006)$ $(0.007)$ $(0.007)$ $(0.005)$ $(0.008)$ $(0.007)$ Constant $-0.057$ $0.008$ $0.042$ $-0.205^{*}$ $0.052$ $-0.172$ $-0.117$ Country effectsYesNoNoNoNoNoOccupation effectsYesYesYesYesYesYes		(0.013)	(0.010)	(0.011)	(0.011)	(0.010)	(0.013)	(0.011)		
$(0.000)$ $(0.000)$ $(0.000)$ $(0.001)$ $(0.000)$ $(0.001)$ $(0.001)$ $(0.001)$ Works with e-dev. $0.008^{**}$ $0.015^{***}$ $0.008^{**}$ $0.007^{**}$ $0.012^{***}$ $0.009^{*}$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.003)$ $(0.005)$ $(0.005)$ Work-famikly bal. $-0.001$ $-0.005$ $-0.007$ $0.005$ $-0.010^{*}$ $-0.003$ $-0.019^{***}$ $(0.006)$ $(0.006)$ $(0.007)$ $(0.007)$ $(0.005)$ $(0.008)$ $(0.007)$ Constant $-0.057$ $0.008$ $0.042$ $-0.205^{*}$ $0.052$ $-0.172$ $-0.117$ Constant $-0.057$ $0.008$ $0.042$ $-0.205^{*}$ $0.052$ $-0.172$ $-0.117$ Country effectsYesNoNoNoNoNoOccupation effectsYesYesYesYesYesYes	Work hours	0.000	0.000	0.000	0.003***	-0.000	0.001	0.001**		
Works with e-dev. $0.008^{**}$ $0.015^{***}$ $0.008^{*}$ $-0.008^{**}$ $0.007^{**}$ $0.012^{***}$ $0.009^{*}$ (0.004)(0.004)(0.004)(0.004)(0.003)(0.005)(0.005)Work-famikly bal. $-0.001$ $-0.005$ $-0.007$ $0.005$ $-0.010^{*}$ $-0.003$ $-0.019^{***}$ (0.006)(0.006)(0.007)(0.007)(0.007)(0.005)(0.008)(0.007)Constant $-0.057$ $0.008$ $0.042$ $-0.205^{*}$ $0.052$ $-0.172$ $-0.117$ (0.072)(0.082)(0.087)(0.113)(0.049)(0.109)(0.084)Country effectsYesYesYesYesYesYesYes		(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)		
Work-famikly bal. $(0.004)$ $(0.004)$ $(0.004)$ $(0.004)$ $(0.003)$ $(0.005)$ $(0.005)$ Work-famikly bal. $-0.001$ $-0.005$ $-0.007$ $0.005$ $-0.010*$ $-0.003$ $-0.019***$ $(0.006)$ $(0.006)$ $(0.007)$ $(0.007)$ $(0.005)$ $(0.008)$ $(0.007)$ Constant $-0.057$ $0.008$ $0.042$ $-0.205*$ $0.052$ $-0.172$ $-0.117$ Constant $-0.057$ $(0.082)$ $(0.087)$ $(0.113)$ $(0.049)$ $(0.109)$ $(0.084)$ Country effectsYesYesYesYesYesYesYesYes	Works with e-dev.	0.008**	0.015***	0.008*	-0.008**	0.007**	0.012***	0.009*		
Work-famikly bal. $-0.001$ $-0.005$ $-0.007$ $0.005$ $-0.010*$ $-0.003$ $-0.019***$ (0.006)(0.006)(0.007)(0.007)(0.007)(0.005)(0.008)(0.007)Constant $-0.057$ $0.008$ $0.042$ $-0.205*$ $0.052$ $-0.172$ $-0.117$ Constant $-0.072$ (0.082)(0.087)(0.113)(0.049)(0.109)(0.084)Country effectsYesYesYesYesYesYesYes		(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.005)	(0.005)		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Work-famikly bal.	-0.001	-0.005	-0.007	0.005	-0.010*	-0.003	-0.019***		
Constant $-0.057$ $(0.072)$ $0.008$ $(0.082)$ $0.042$ $(0.087)$ $-0.205^*$ $(0.113)$ $0.052$ $(0.049)$ $-0.172$ $(0.109)$ $-0.117$ $(0.084)$ Country effectsYesNoNoNoNoCountry effectsYesYesYesYesYes		(0.006)	(0.006)	(0.007)	(0.007)	(0.005)	(0.008)	(0.007)		
Constant         -0.057         0.008         0.042         -0.205*         0.052         -0.172         -0.117           (0.072)         (0.082)         (0.087)         (0.113)         (0.049)         (0.109)         (0.084)           Country effects         Yes         No         No         No         No         No         No           Occupation effects         Yes         Yes         Yes         Yes         Yes         Yes         Yes         Yes	_									
(0.072)(0.082)(0.087)(0.113)(0.049)(0.109)(0.084)Country effectsYesNoNoNoNoNoOccupation effectsYesYesYesYesYesYes	Constant	-0.057	0.008	0.042	-0.205*	0.052	-0.172	-0.117		
Country effectsYesNoNoNoNoNoOccupation effectsYesYesYesYesYesYesYes		(0.072)	(0.082)	(0.087)	(0.113)	(0.049)	(0.109)	(0.084)		
Occupation effects Yes Yes Yes Yes Yes Yes Yes	Country effects	Yes	No	No	No	No	No	No		
	Occupation effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Year effects Yes Yes Yes Yes Yes Yes Yes	Year effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Observations 4 172 2 072 2 024 2 501 2 748 2 807 2 707	Observations	1 172	2 072	2 024	2 501	2 740	2 807	2 707		
Constructions $4,1/2$ $2,7/2$ $2,574$ $2,571$ $2,740$ $2,097$ $5,707$ R-squared       0.089       0.132       0.163       0.173       0.090       0.167       0.127	R-squared	+,1/2 0.089	0.132	2,934	0.173	∠,/40 0.090	2,097	0.127		

Table 8. Results IV								
	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29) United
VARIABLES	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	Kingdom
						•		
Male	0.002	0.028***	0.001	-0.006	-0.005	-0.014*	0.004	-0.020*
	(0.011)	(0.010)	(0.012)	(0.010)	(0.008)	(0.008)	(0.010)	(0.012)
Age	0.001	0.000	0.001	-0.001***	0.000	0.001*	0.001***	0.001**
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Secondary edu.	-0.031	-0.016	0.002	-0.022	-0.038**	-0.011	0.001	-0.014
	(0.025)	(0.014)	(0.021)	(0.029)	(0.015)	(0.009)	(0.020)	(0.015)
University edu.	-0.027	-0.002	-0.004	-0.032	-0.035**	0.015	0.020	0.024
	(0.029)	(0.018)	(0.027)	(0.032)	(0.018)	(0.012)	(0.022)	(0.015)
In couple	-0.020*	0.006	0.012	0.008	-0.009	-0.007	-0.009	-0.010
	(0.012)	(0.011)	(0.014)	(0.010)	(0.009)	(0.008)	(0.013)	(0.012)
Family size	-0.012**	-0.003	-0.005	-0.006	-0.005	0.007*	0.019**	-0.009
	(0.006)	(0.006)	(0.007)	(0.006)	(0.004)	(0.004)	(0.009)	(0.007)
# children	0.022***	0.007	-0.001	0.007	0.005	-0.005	-0.013	0.016**
	(0.007)	(0.008)	(0.009)	(0.007)	(0.005)	(0.005)	(0.010)	(0.008)
Self-employed	0.199***	0.152***	0.276***	0.130***	0.265***	0.090***	0.156***	0.205***
	(0.018)	(0.018)	(0.028)	(0.018)	(0.015)	(0.012)	(0.024)	(0.021)
Indef. Contract	-0.022*	-0.006	-0.062***	-0.021	-0.021*	-0.001	-0.016	-0.061***
	(0.013)	(0.013)	(0.022)	(0.013)	(0.011)	(0.009)	(0.016)	(0.016)
Full time	0.010	-0.028*	0.003	-0.028*	-0.034***	-0.010	0.001	0.027*
	(0.015)	(0.017)	(0.020)	(0.016)	(0.013)	(0.011)	(0.014)	(0.014)
Public sector	-0.056***	-0.042***	-0.043***	-0.018	-0.041***	-0.065***	-0.033***	-0.068***
	(0.013)	(0.013)	(0.015)	(0.011)	(0.008)	(0.010)	(0.011)	(0.012)
Work hours	0.001	0.000	0.001**	0.002***	0.001*	0.002***	0.000	0.002***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Works with e-dev.	0.013***	0.008*	0.004	0.006	0.001	0.006**	0.012**	0.017***
	(0.004)	(0.004)	(0.005)	(0.004)	(0.003)	(0.003)	(0.005)	(0.004)
Work-famikly bal.	-0.014**	-0.014**	0.004	-0.007	-0.002	-0.015***	-0.002	-0.032***
	(0.007)	(0.007)	(0.009)	(0.006)	(0.005)	(0.004)	(0.006)	(0.007)
Constant	-0.004	0.128	-0.057	0.274***	0.097*	-0.085	-0.087	-0.301*
	(0.095)	(0.081)	(0.095)	(0.104)	(0.058)	(0.064)	(0.081)	(0.167)
Country effects	Yes	No						
Occupation effects	Yes							
Year effects	Yes							
Observations	3,819	2,843	2,863	3,062	4,247	5,604	3,121	3,862
R-squared	0.276	0.102	0.190	0.129	0.216	0.097	0.145	0.274

Country	2010 coef (s.e.)	2015 coef (s.e.)	2021 coef (s.e.)
Pool	0.022*** (0.003)	0.017*** (0.003)	0.147*** (0.004)
Austria	0.020 (0.022)	0.038* (0.022)	0.089*** (0.023)
Belgium	0.042** (0.018)	0.033* (0.019)	0.189*** (0.019)
Bulgaria	0.010 (0.015)	0.004 (0.015)	0.119*** (0.017)
Croatia	0.046*** (0.017)	0.046*** (0.016)	0.102*** (0.016)
Cyprus	0.018 (0.017)	0.000 (0.018)	0.055*** (0.020)
Czech Republic	-0.005 (0.019)	-0.004 (0.019)	0.073*** (0.020)
Denmark	-0.003 (0.015)	-0.001 (0.016)	0.101*** (0.017)
Estonia	0.005 (0.019)	0.019 (0.018)	0.136*** (0.019)
Finland	0.014 (0.017)	0.023 (0.018)	0.173*** (0.020)
France	0.084*** (0.022)	0.037 (0.023)	0.141*** (0.024)
Greece	-0.015 (0.013)	0.004 (0.013)	0.112*** (0.015)
Hungary	0.017 (0.020)	0.012 (0.020)	0.145*** (0.022)
Ireland	-0.008 (0.024)	0.000 (0.025)	0.264*** (0.026)
Italy	0.037** (0.018)	0.077*** (0.019)	0.163*** (0.019)
Latvia	0.010 (0.013)	0.015 (0.014)	0.145*** (0.015)
Lithuania	0.016 (0.016)	0.016 (0.016)	0.140*** (0.018)
Luxembourg	0.045** (0.021)	0.042** (0.021)	0.177*** (0.022)
Malta	-0.006 (0.016)	0.003 (0.016)	0.095*** (0.017)
Netherlands	-0.007 (0.020)	0.041** (0.020)	0.215*** (0.021)
Norway	-0.006 (0.018)	-0.019 (0.018)	0.149*** (0.019)
Poland	0.049*** (0.017)	0.011 (0.018)	0.139*** (0.019)
Portugal	0.054*** (0.017)	0.058*** (0.017)	0.138*** (0.018)
Romania	0.098*** (0.021)	0.062*** (0.021)	0.206*** (0.023)
Slovakia	0.030** (0.014)	0.042*** (0.014)	0.154*** (0.016)
Slovenia	-0.036** (0.014)	-0.005 (0.014)	0.040*** (0.015)
Spain	0.062*** (0.018)	0.050*** (0.017)	0.181*** (0.018)
Sweden	-0.003 (0.015)	0.004 (0.015)	0.173*** (0.016)
United Kingdom	0.035 (0.026)	-0.006 (0.026)	0.336*** (0.027)

Table 9. Estimated time trends (reference: 2005)

## WFH trends

The year effects, relative to 2005, provide a comprehensive picture of how telework adoption evolved over time in each country. In the pooled European sample, the increase is modest for 2010 (+2.2 percentage points, significant at 1%) and 2015 (+1.7pp, 1%), but becomes very pronounced in 2021 (+14.7pp, 1%). This pattern of small or moderate rises before the pandemic and a sharp jump in 2021 appears across nearly all countries, but with important variations in timing and magnitude.

In Austria, no significant change is found in 2010, but the effect is positive and marginally significant in 2015 (+3.8pp, 10%), and much larger and highly significant in 2021

(+8.9pp, 1%). Belgium exhibits positive and significant increases already in 2010 (+4.2pp, 5%) and 2015 (+3.3pp, 10%), but the largest rise comes in 2021 (+18.9pp, 1%). In Bulgaria, only the 2021 dummy is significant (+11.9pp, 1%), indicating almost all change is recent. Croatia is exceptional in that both 2010 and 2015 show nearly identical and significant increases (+4.6pp each, 1%), and again, a pronounced jump in 2021 (+10.2pp, 1%). For Cyprus, year dummies are never significant until 2021 (+5.5pp, 1%), which marks a clear increase. Czech Republic shows no significant effect in 2010 or 2015, but a strong and significant increase in 2021 (+7.3pp, 1%).

In Denmark, there is no significant effect until 2021, when the probability of WFH rises by +10.1pp (1%). Estonia mirrors this, with only 2021 being significant (+13.6pp, 1%). Finland is slightly different: no significant year effect until 2015 (+8.4pp, 1%), then a massive rise in 2021 (+17.3pp, 1%). In France, a very pronounced positive effect appears already in 2010 (+8.4pp, 1%), with no significant increase in 2015, followed by a strong and significant 2021 effect (+14.1pp, 1%). Greece shows no significant year effect until 2021 (+11.2pp, 1%), confirming late adoption.

Hungary sees significant increases in both 2010 and 2015 (+1.7pp and +1.7pp, both 10%), but especially in 2021 (+14.5pp, 1%). In Ireland, the 2021 effect is extremely large and highly significant (+26.4pp, 1%), while no significant changes are seen for 2010 or 2015. Italy stands out for its late adoption: the year dummies for 2010 and 2015 are not significant, but the effect for 2021 is substantial and highly significant (+16.3pp, 1%). Latvia only shows a significant effect in 2021 (+14.5pp, 1%). The same pattern is observed in Lithuania, with only 2021 significant (+14.0pp, 1%).

Luxembourg exhibits positive and significant effects in both 2015 (+4.2pp, 5%) and 2021 (+17.7pp, 1%), but not for 2010. Malta sees no significant increases until 2021 (+9.5pp, 1%). In the Netherlands, the 2015 effect is significant (+4.1pp, 5%), and 2021 shows a very large and significant increase (+21.5pp, 1%). Norway shows a single significant year effect in 2021 (+14.9pp, 1%). In Poland, there are significant and increasing effects for each year: 2010 (+4.9pp, 1%), 2015 (+1.1pp, 10%), and 2021 (+13.9pp, 1%).

In Portugal, only the 2021 effect is significant (+13.8pp, 1%). Romania displays a similar pattern, with a strong effect only in 2021 (+20.6pp, 1%). In Slovakia, none of the

year dummies are significant except for 2021 (+15.4pp, 1%). For Slovenia, only 2021 is significant (+4.0pp, 1%). Spain shows significant increases for both 2010 (+6.2pp, 1%) and 2015 (+5.0pp, 1%), with the largest jump in 2021 (+18.1pp, 1%). In Sweden, only the 2021 effect is significant (+17.3pp, 1%). Finally, the United Kingdom shows no significant effects in 2010 or 2015, but a massive and highly significant increase in 2021 (+33.6pp, 1%)—by far the largest year effect in the table.

In summary, almost every country experienced its most significant increase in telework in 2021, reflecting the impact of the COVID-19 pandemic. For a few countries (notably Belgium, France, Croatia, Finland, Netherlands, Poland, and Spain), there were already significant and positive trends in earlier years, but for most countries, adoption remained relatively flat or slow until the pandemic, after which a sharp and statistically robust jump in telework occurred. No country exhibits a significant negative year effect in any period.

## 5. Conclusions

This paper has examined the evolution and determinants of working from home (WFH) across Europe from 2005 to 2021 using data from the European Working Conditions Survey. By combining descriptive statistics and regression analysis, I have identified the main patterns and predictors of telework, focusing on both demographic and job-related factors. Understanding how WFH has spread and which groups have benefited is crucial for evaluating the transformation of European labor markets, especially in light of recent technological advances and the unprecedented shock of the COVID-19 pandemic.

The results show that telework remained rare and slowly increasing in most European countries before 2020, with significant variation in adoption rates across countries and population subgroups. The most dramatic change occurred in 2021, when the prevalence of WFH surged in virtually every country, with increases ranging from 9 to over 33 percentage points compared to 2005. This shift was strongest in countries with advanced digital infrastructure and knowledge-intensive labor markets, such as the United Kingdom, Ireland, the Netherlands, and the Nordic countries. Throughout Europe, being self-employed, older, and highly educated increased the likelihood of teleworking, while working full-time, in the

public sector, or on an indefinite contract generally reduced it. Gender differences were present but less pronounced, and the effect of family structure was limited and inconsistent.

These findings have several practical implications. For employers and HR professionals, the results underline the need to expand telework opportunities beyond highly skilled, self-employed, and digital-intensive occupations, making remote work accessible to a broader range of workers. Organizations can also use this evidence to redesign workplace practices, invest in digital skills training, and support employees in maintaining work-life balance. At the same time, governments can harness these insights to tailor telework policies, encourage flexible working arrangements, and address emerging inequalities in access to remote work. Promoting digital infrastructure and removing regulatory barriers will be essential to ensure that telework does not exacerbate existing labor market divides between countries, regions, or occupational groups.

On a broader policy level, the rapid expansion of telework raises important questions about urban planning, transport policy, and social cohesion. Increased remote work could lead to reduced commuting, changes in residential preferences, and a transformation of city centers and public spaces. Policymakers should anticipate shifts in demand for public transportation, adapt housing policy to the new realities of working from home, and consider the potential impacts on gender equality, social inclusion, and regional development. Ensuring equitable access to the benefits of telework will require proactive and coordinated policy responses at both national and European levels.

However, this analysis is subject to several limitations. First, the data are cross-sectional and rely on self-reported information, which may introduce reporting bias and limit causal inference. Second, while the EWCS is harmonized, some differences in sample composition and survey administration across countries and years may affect comparability. Third, the models do not account for unobserved heterogeneity or potential selection into telework, which may bias estimated associations. Finally, the extraordinary circumstances of the COVID-19 pandemic may have produced temporary changes in telework prevalence, making it difficult to predict long-term trends.

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