Execution Report

Title: **Technology Boom, Labor Reallocation, and Human Capital Depreciation**

Authors: **Johan Hombert and Adrien Matray**

Full reference: *Hombert, Johan and Adrien Matray (2019) "Technology Boom, Labor Reallocation, and Human Capital Depreciation", Working Paper.*

The structure and contents of this execution report provided by **cascad** for the certification are similar to those recommended by the AEA Data Editor.

1. DATA DESCRIPTION

This study uses administrative data on French workers and firms, collected by the national statistical office based on a mandatory employer report of the gross earnings of each employee subject to payroll taxes. The dataset includes all employed individuals in the private sector, with information about the gross and net wage, dated employment periods, number of hours worked, job occupation, and the individual's birth year and sex. The data also includes unique firm and establishment identifiers that can be linked with other administrative data. The exhaustive employer-employee data does not include unique individual identifiers. For a thorough description of the data used in the paper, please refer to section 2.1 of the manuscript.

The datasets are listed below:

1. *Déclaration Annuelle des Données Sociales* (DADS): Exhaustive employer-employee cross-sectional data, from social security fillings.
2. *DADS Panel Tous Salariés*: 1/24th employer-employee panel data (individuals born in October of even-numbered years), from social security fillings.
3. *DADS Echantillon Démographique Permanent*: 4/30th subsample of the employer panel data (individuals born in the first four days of October), which is linked with census data.
4. *FICUS-FARE*: Firm financial statement, from tax filings.
5. *Enquête LIaisons FInancières (LIFI)*: Firm ownership structure, from Bureau van Dijk and survey run by the statistical office.
6. *Répertoire des Entreprises et des Etablissement (SIRENE)*: New business creation, from firm register.

Those data sets are made available to researchers by CASD (Secure Data Access Centre); see https://www.casd.eu/en/.

2. CODE DESCRIPTION

For the purpose of this certification, we checked the results displayed in Figures 1 to 4 and Tables 1 to 12. Those results are computed using the following files:

txt files (they contain SAS code):

- dads_panel.txt
- dads_postes.txt
- ficus_fare.txt
- lifi.txt
- ree_creation.txt

.do files (for Stata):

- construct_data.do
- techboom.do

All code is written in SAS 9.4 and Stata 15. The SAS files extract the raw data and save it as dta files in the « C:\Users\Public\Documents\TechBoom\source » folder. The five files can be executed in any order. construct_data.do then uses those files to generate other dta files, stored in « C:\Users\Public\Documents\TechBoom\output ». Eventually, techboom.do computes the tables and figures displayed in the article, respectively as tex and pdf files.

3. REPLICATION STEPS

The resources were provided by the CASD staff in a virtual machine. The code has been run as per readme. We encountered two small problems during the replication, none of which were caused by potential shortcomings in the code. The first one was a lack of memory available in the C drive, as the TechBoom folder required 233 Go. We resolved this issue by allocating more space to the C drive. The second problem was a bug we got when running techboom.do: “(MWFE estimator converged in 4 iterations); class FixedEffects undefined”. We resolved this issue by running the command "reghdfe, compile” before running techboom.do once again.

4. FINDINGS

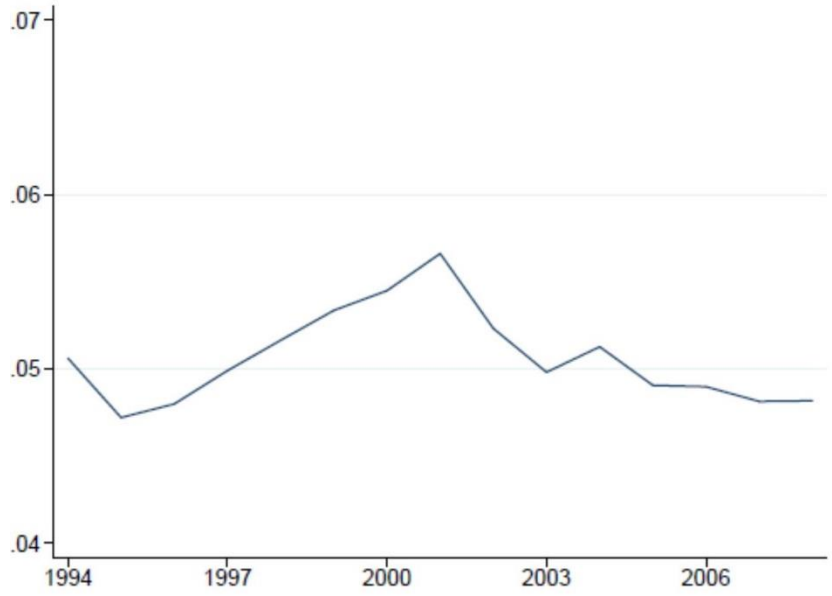
For each table and figure, we first provide the researchers’ results and then compare them against ours.

4.1. FIGURE 1: EMPLOYMENT SHARE OF THE ICT SECTOR

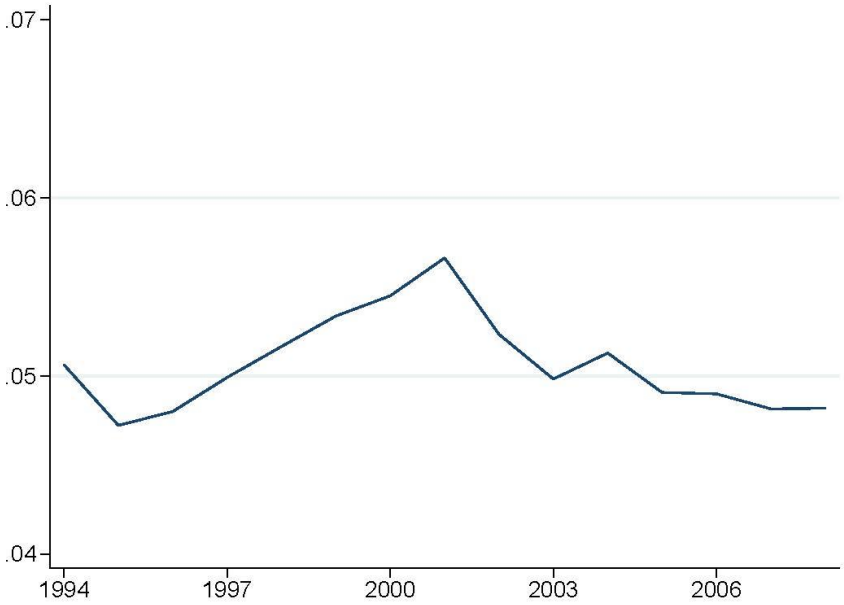
Panel A shows the share of the ICT sector in total employment. Panel B shows the share of the ICT sector in skilled employment. Panel C decomposes skilled employment in the ICT sector into workers who entered the labor market five years ago or more (blue line) and those who entered four years ago or less (red line). Panel D plots the share of skilled labor market entrants starting in the ICT sector.

4.1.1 FIGURE 1, PANEL A: ALL WORKERS

Original:

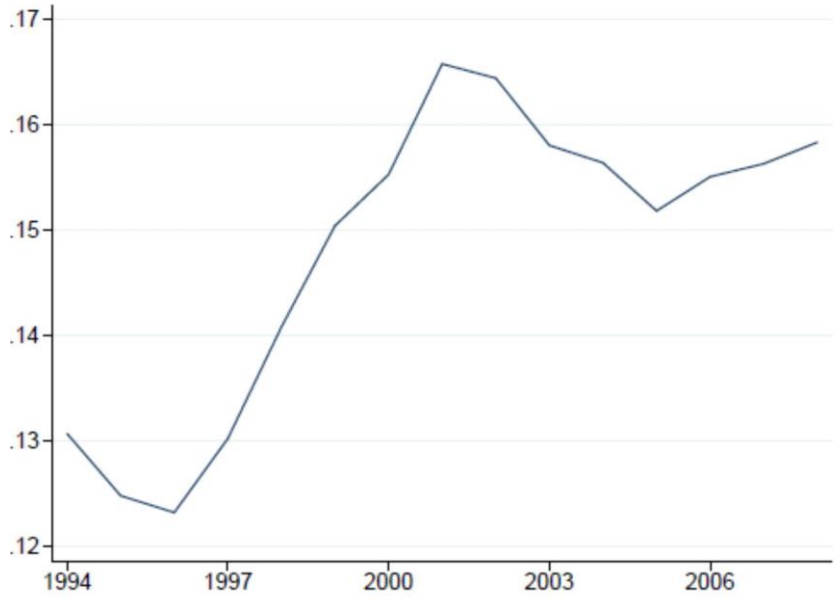


Reproduced:



4.1.2 FIGURE 1, PANEL B: SKILLED WORKERS

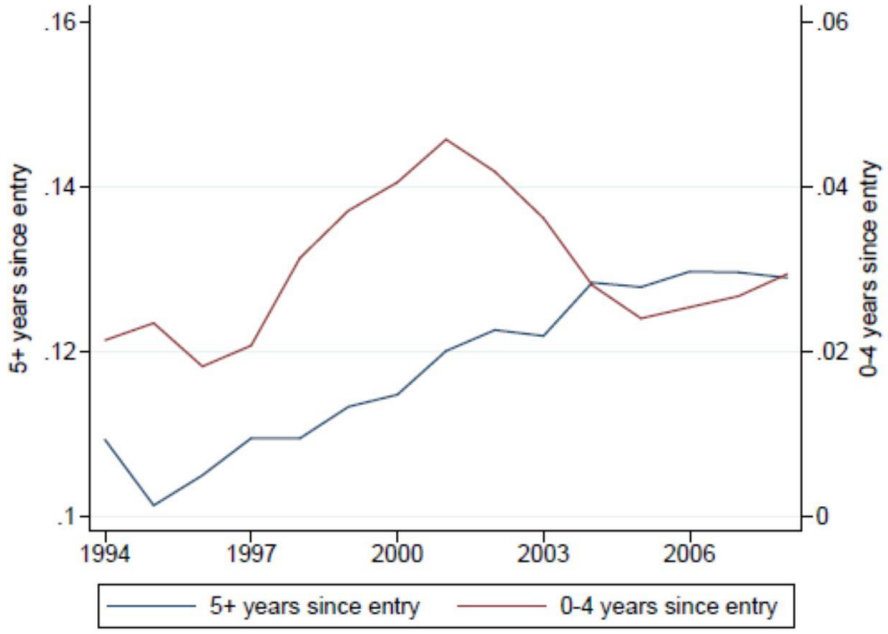
Original:



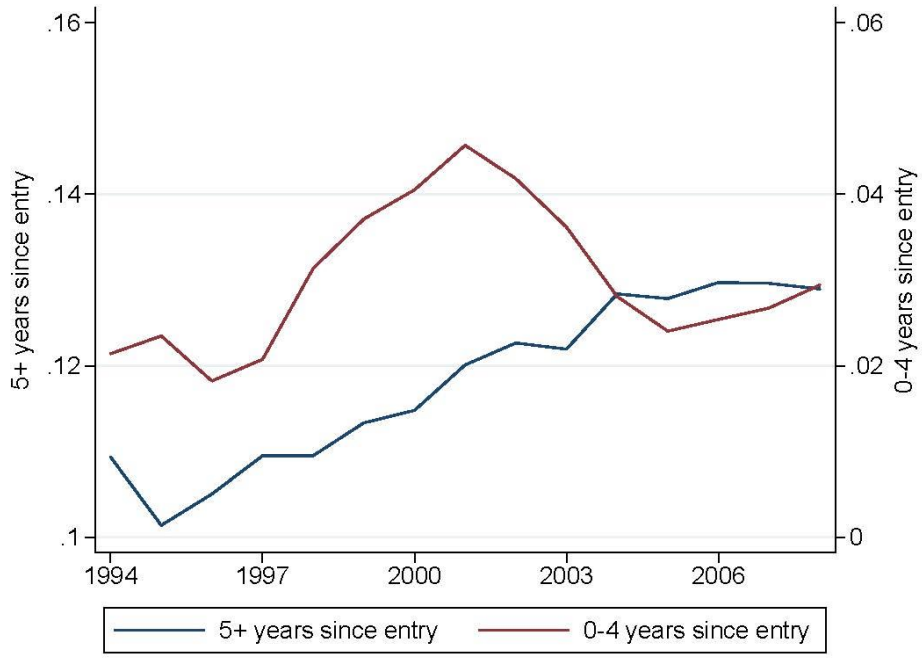
Reproduced:

4.1.3 FIGURE 1, PANEL C: SKILLED WORKERS: DECOMPOSITION RECENT ENTRANTS VS. OLDER WORKERS

Original:

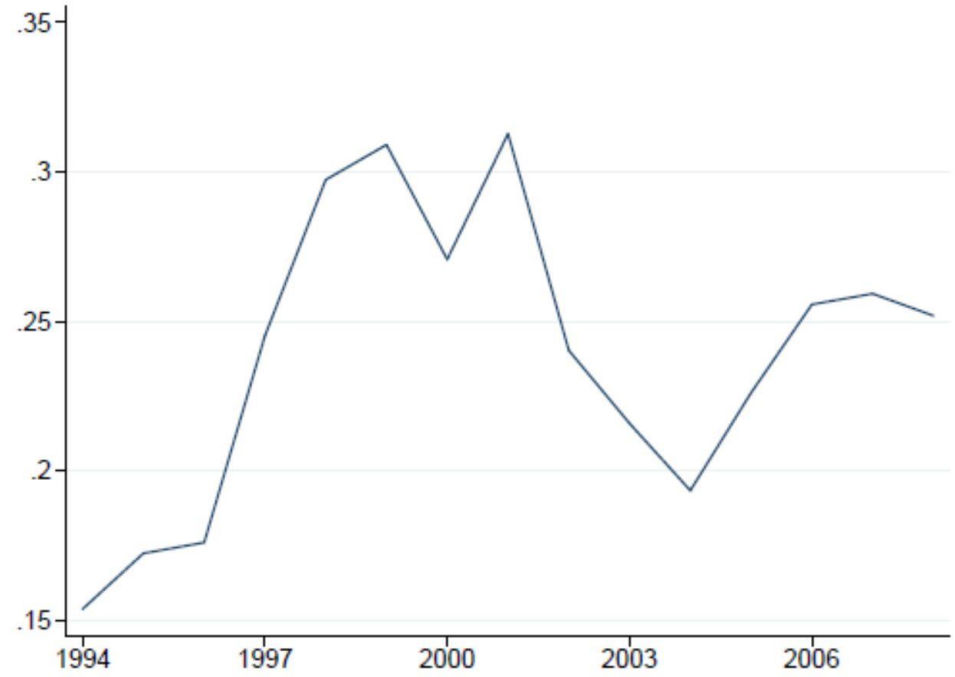


Reproduced:



4.1.3 FIGURE 1, PANEL D: SKILLED ENTRANTS

Original:

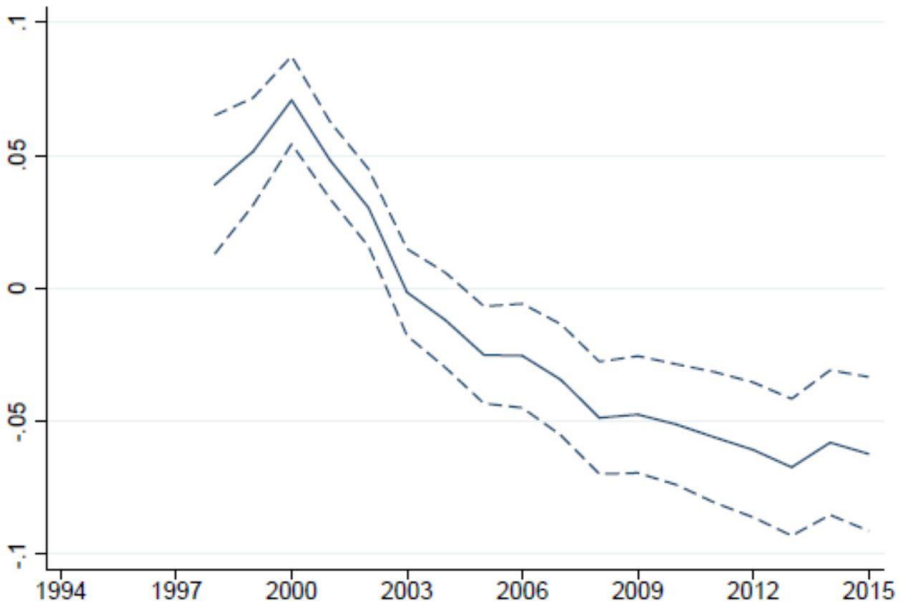


Reproduced:

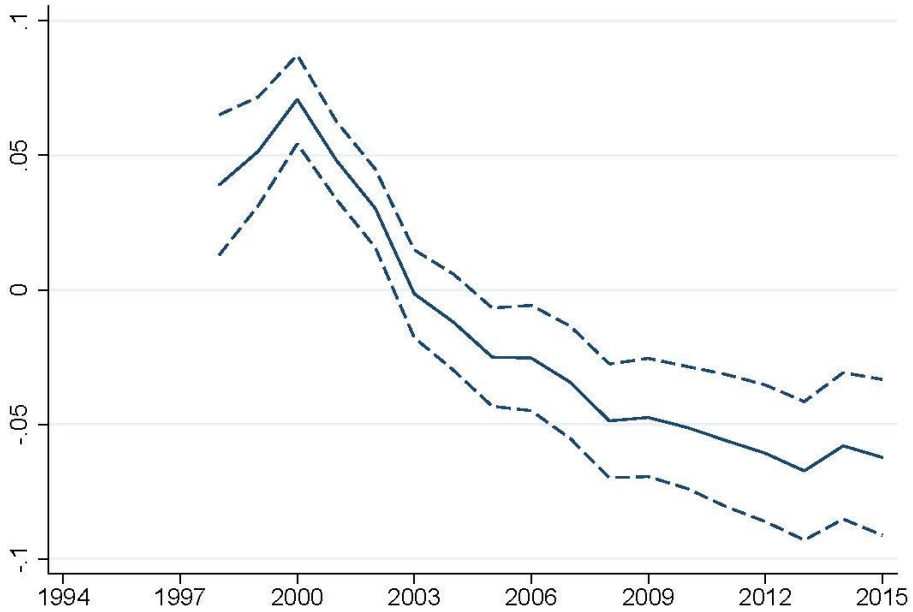
4.2. FIGURE 2: WAGE DYNAMICS OF THE ICT BOOM COHORT

The figure displays the t coefficient of the wage regression $\log(w_{i;t}) = t + \beta_t ICT_{i,0} + \gamma_t X_i + \varepsilon_{i,t}$ *where* $ICT_{i,0}$ *is a dummy variable equal to one if worker i's first employment spell is in a firm in the ICT sector and* X_i *collects control variables listed in Section 4.1. Dashed lines represent the 95% confidence interval. The regression is estimated over the cohort of skilled workers whose first full-time job was in 1998-2001.*

Original:



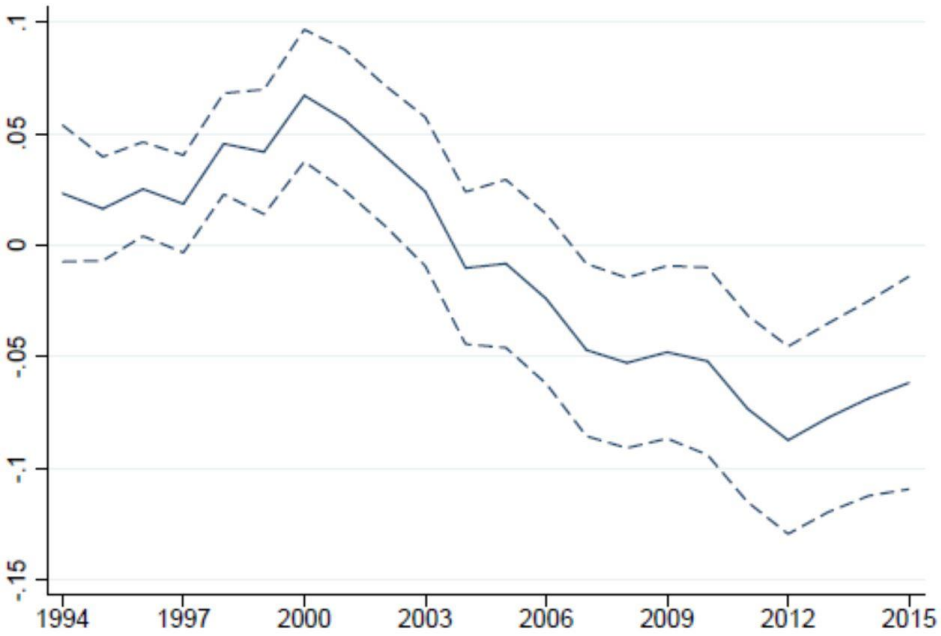
Reproduced:



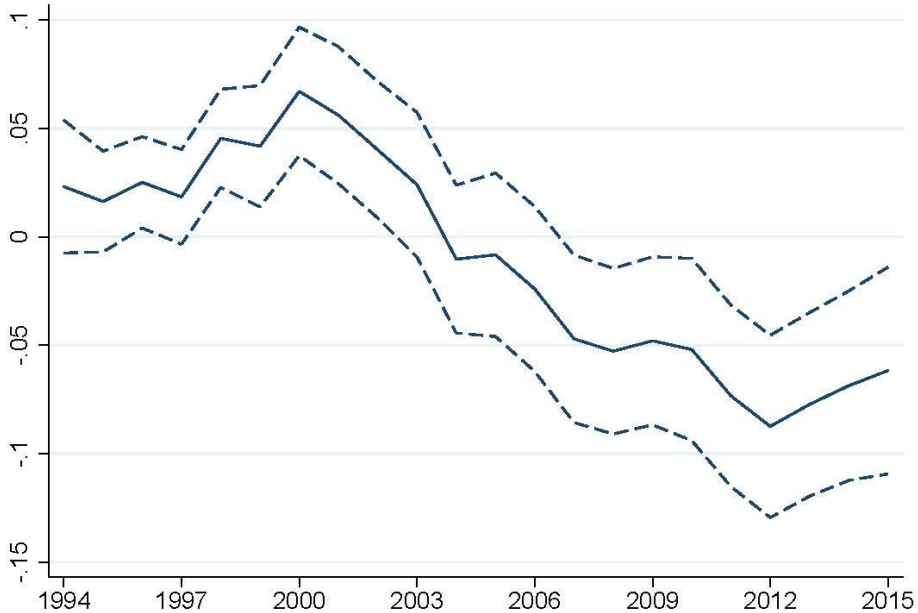
4.3. FIGURE 3: WAGE DYNAMICS OF THE PRE-BOOM COHORT

The figure displays the t coefficient of the wage regression $\log(w_{i;t}) = t + \beta_t ICT_{i,0} + \gamma_t X_i + \varepsilon_{i,t}$ *where* $ICT_{i,0}$ *is a dummy variable equal to one if worker i's first employment spell is in a firm in the ICT sector and* X_i *collects control variables listed in Section 4.1. Dashed lines represent the 95% confidence interval. The regression is estimated over the cohort of skilled workers whose first full-time job was in 1994-1996.*

Original:



Reproduced:

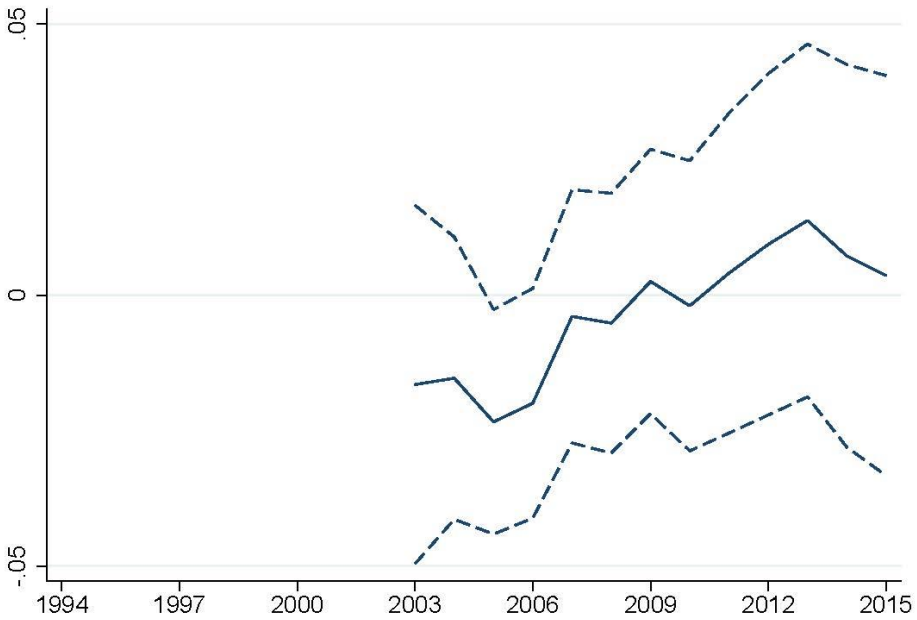


4.4. FIGURE 4: WAGE DYNAMICS OF THE POST-BOOM COHORT

The figure displays the t coefficient of the wage regression $\log(w_{i,t}) = t + \beta_t ICT_{i,0} + \gamma_t X_i + \varepsilon_{i,t}$ *where* $ICT_{i,0}$ *is a dummy variable equal to one if worker i's first employment spell is in a firm in the ICT sector and* X_i *collects control variables listed in Section 4.1. Dashed lines represent the 95% confidence interval. The regression is estimated over the cohort of skilled workers whose first full-time job was in 2003-2005.*

Original:

Reproduced:



4.5. TABLE 1: WAGE DYNAMICS OF THE BOOM COHORT

*The table presents the OLS estimates of θ_t in Equation (14) for skilled entrants of the boom cohort 1998-2001. The dependent variable is log wage of worker i in year t. ICT_0 is a dummy equal to one if worker i started in the ICT sector. (t=Y) is a dummy equal to one if year t is Y = entry year, 2002, 2006, 2010, or 2015. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. Column 2 includes worker fixed effects and use the year of entry as the baseline year. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

	Log wage	
	(1)	(2)
ICT_0 x (t=0)	.046***	
	(.007)	
ICT_0 x (t=2002)	.030***	-.004
	(.007)	(.007)
ICT_0 x (t=2006)	-.025**	-.070***
	(.010)	(.001)
ICT_0 x (t=2010)	-.051***	-.095***
	(.012)	(.011)
ICT_0 x (t=2015)	-.062***	-.109***
	(.015)	(.014)
Worker controls	✓	✓
Worker FE	–	✓
Observations	31,670	30,423

Original

Log wage		
	w/o FE	w/ FE
(ICT_0) x (t=0)	0.046***	
	(0.007)	
(ICT_0) x (t=2002)	0.030***	-0.004
	(0.007)	(0.007)
(ICT_0) x (t=2006)	-0.025**	-0.070***
	(0.010)	(0.010)
(ICT_0) x (t=2010)	-0.051***	-0.095***
	(0.012)	(0.011)
(ICT_0) x (t=2015)	-0.062***	-0.109***
	(0.015)	(0.014)
Adjusted-R2	.52	.78
Observations	31,670	30,423

Reproduced

4.6. TABLE 2: WAGE GROWTH OF THE BOOM COHORT

*The table presents OLS estimations of Equation (15) for skilled entrants of the boom cohort 1998-2001. The dependent variable is wage growth of worker i from entry year to 2015. ICT_0 is a dummy equal to one if worker i started in the ICT sector. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. From column 2 on, Commuting Zone fixed effects are included. In column 3, entrants who started in the finance sector are excluded. In column 4, the sample is restricted to workers that can be linked with census data. In column 5, we add two dummy variables for the worker holding a three-year college degree and for the worker holding a five-year college degree. In column 6, the firm's net income is added to the worker's wage if the worker is the CEO of the _rm. In column 7, a fraction of the firm's net income equal to the worker's share in total wage bill is added to the worker's wage. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original :

	Log wage 2015 − log wage entry						
						Incl. firm profit for CEO	Incl. firm profit for all emp.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ICT_0	-.105***	-.113***	-.104***	-.154***	-.152***	-.113***	-.129***
	(.015)	(.016)	(.016)	(.044)	(.043)	(.016)	(.043)
Worker controls	✓	✓	✓	✓	✓	✓	✓
Commuting Zone FE	–	✓	✓	✓	✓	✓	✓
Education	–	–	–	–	✓	–	–
Observations	4,972	4,972	4,599	537	537	4,897	4,972
Sample	All	All	Excl. finance	Census	Census	All	All

Reproduced :

Log wage 2015 - Log wage entry					
	delta	Bassin Demploi FE	ex.fin0	educ nonmiss	educ control
ICT_0	-0.105***	-0.113***	-0.104***	-0.154***	-0.152***
	(0.015)	(0.016)	(0.016)	(0.044)	(0.043)
Adjusted-R2	.089	.1	.099	.17	.17
Observations	4,972	4,852	4,599	537	537

Log wage 2015 - Log wage entry		
	earnings-ceo	earnings-all
ICT_0	-0.113***	-0.129***
	(0.016)	(0.043)
Adjusted-R2	.14	.015
Observations	4,897	4,972

Minor discrepancies are indicated with an orange box.

4.7. TABLE 3: WAGE GROWTH AND FIRM CHARACTERISTICS

*The table presents OLS estimations of Equation (15) for skilled entrants of the boom cohort 1998-2001. The dependent variable is wage growth of worker i from entry year to 2015. ICT_0 is a dummy equal to one if worker i started in the ICT sector. Log(Employees), Value added/Worker, and Startup are variables defined for the initial employer of worker i and equal to the log number of employees, value added per worker, and a dummy equal to one if the firm is two years old or less, respectively. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. In column 2, we restrict the sample to workers whose initial employer is the subsidiary of a US company. In column 3, we restrict the sample to workers whose initial employer has sales growth in the subsequent five years above 40%. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Log wage 2015 − log wage entry		
	(1)	(2)	(3)
ICT_0	-0.11***	-0.15***	-0.092***
	(.015)	(.045)	(.029)
Log(Employees)	0.0026		
	(.0032)		
Value added/Worker	0.00085***		
	(.00015)		
Startup	0.042*		
	(.026)		
Worker controls	✓	✓	✓
Observations	4,282	530	1,064
Sample	All	US firms	High growth firms

Reproduced:

Log wage 2015 - Log wage entry			
	est1	est2	est3
ICT_0	-.11***	-.15***	-.092***
	(.015)	(.045)	(.029)
Log(Employees)	.0026		
	(.0032)		
Value added/Worker	.00085***		
	(.00015)		
Startup	.042*		
	(.026)		
Adjusted-R2	.091	.1	.084
Observations	4,282	530	1,064

4.8. TABLE 4: QUANTILES OF WAGE GROWTH

*The table presents quantile regressions of Equation (15) for skilled entrants of the boom cohort 1998-2001. The dependent variable from column 1 to 5 is the 10th, 25th, 50th, 75th, and 90th percentile, respectively, of wage growth of worker i from entry year to 2015. ICT_0 is a dummy equal to one if worker i started in the ICT sector. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original :

	Wage growth quantiles				
	P10	P25	P50	P75	P90
	(1)	(2)	(3)	(4)	(5)
ICT_0	-.105***	-.105***	-.107***	-.121***	-.110***
	(.027)	(.018)	(.015)	(.018)	(.028)
Worker Controls	✓	✓	✓	✓	✓
Observations	4,972	4,972	4,972	4,972	4,972

Reproduced :

	Wage growth quantiles				
	est1	est2	est3	est4	est5
ICT_0	-0.105***	-0.105***	-0.107***	-0.121***	-0.110***
	(0.025)	(0.017)	(0.015)	(0.016)	(0.031)
Adjusted-R2					
Observations	4,972	4,972	4,972	4,972	4,972

Minor discrepancies are indicated with an orange box.

4.9. TABLE 5: CUMULATIVES EARNINGS

*The table presents the OLS estimates of θ_t in Equation (14) for skilled entrants of the boom cohort 1998{2001. The dependent variable is discounted cumulative earnings of worker i from entry year to year t, in log in column 1 and in level in column 2. In column 3, earnings include unemployment benefits assuming a 60% replacement rate for one year. ICT_0 is a dummy equal to one if worker i started in the ICT sector. (t=Y) is a dummy equal to one if year t is Y = entry year, 2002, 2006, 2010, or 2015. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Cumulative Earnings		
	Log	Level (in Euro)	Level (in Euro) incl. UB
	(1)	(2)	(3)
ICT_0 x (t=0)	.038***	810 ***	810***
	(.008)	(222)	(222)
ICT_0 x (t=2002)	.023***	1748	2060**
	(.011)	(949)	(923)
ICT_0 x (t=2006)	-.003	-948	-1260
	(.015)	(2184)	(2155)
ICT_0 x (t=2010)	-.024	-8393**	-9016**
	(.018)	(3702)	(3664)
ICT_0 x (t=2015)	-.043***	-18381***	-19387***
	(.021)	(5968)	(5946)
Worker controls	✓	✓	✓
Observations	45,695	45,695	45,695

Reproduced:

Wage growth quantiles			
	log	level	1yr UB
(ICT_0) x (t=0)	.038***	810***	810***
	(.0083)	(222)	(222)
(ICT_0) x (t=2002)	.023**	1748*	2060**
	(.011)	(949)	(923)
(ICT_0) x (t=2006)	-.0025	-948	-1260
	(.015)	(2184)	(2155)
(ICT_0) x (t=2010)	-.024	-8393**	-9016**
	(.018)	(3702)	(3664)
(ICT_0) x (t=2015)	-.043**	-18381***	-19387***
	(.02)	(5968)	(5946)
Adjusted-R2	.7	.49	.51
Observations	45,695	45,695	45,695

Minor discrepancies are indicated with an orange box.

4.10. TABLE 6: WAGE DYNAMICS OF THE PRE-BOOM COHORT

*The table presents the OLS estimates of θ_t in equation (14) for skilled entrants of the pre-boom cohort 1994-1996. The dependent variable is log wage of worker i in year t. ICT_0 is a dummy equal to one if worker i started in the ICT sector. (t=Y) is a dummy equal to one if year t is Y = entry year, 1997, 2000, 2002, 2006, 2010, or 2015. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. Column 2 includes worker fixed effects and use the year of entry as the baseline year. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Log wage		
	(1)	(2)	(3)
$ICT_0 \times$ (t=0)	.028***		
	(.010)		
$ICT_0 \times$ (t=1997)	.018*	.002	
	(.011)	(.010)	
$ICT_0 \times$ (t=2000)	.067***	.056***	
	(.015)	(.014)	
$ICT_0 \times$ (t=2002)	.040**	.028**	.040**
	(.016)	(.014)	(.016)
$ICT_0 \times$ (t=2006)	-.024	-.041**	-.024
	(.019)	(.018)	(.019)
$ICT_0 \times$ (t=2010)	-.052**	-.063***	-.052**
	(.021)	(.019)	(.021)
$ICT_0 \times$ (t=2015)	-.062**	-.086***	-.062**
	(.024)	(.022)	(.024)
$ICT_0 \times$ (t=2002) $\times$ Boom cohort			-.010
			(.018)
$ICT_0 \times$ (t=2006) $\times$ Boom cohort			-.001
			(.022)
$ICT_0 \times$ (t=2010) $\times$ Boom cohort			.001
			(.024)
$ICT_0 \times$ (t=2015) $\times$ Boom cohort			-.001
			(.028)
Worker controls	✓	✓	✓
Worker FE	–	✓	–
Observations	24,540	23,397	34,013
Sample	Pre-boom cohort	Pre-boom cohort	Pre-boom+Boom cohorts

Replicated:

Log wage			
	w/o FE	w/ FE	boom/pre
$ict0_0$	0.028***		
	(0.010)		
$ict0_y1997$	0.018*	0.002	
	(0.011)	(0.010)	
$ict0_y2000$	0.067***	0.056***	
	(0.015)	(0.014)	
(ICT_0) x (t=2002)	0.040**	0.028**	0.040**
	(0.016)	(0.014)	(0.016)
(ICT_0) x (t=2006)	-0.024	-0.041**	-0.024
	(0.019)	(0.018)	(0.019)
(ICT_0) x (t=2010)	-0.052**	-0.063***	-0.052**
	(0.021)	(0.019)	(0.021)
(ICT_0) x (t=2015)	-0.062**	-0.086***	-0.062**
	(0.024)	(0.022)	(0.024)
(ICT_0) x (t=2002) x (Boom cohort)			-0.010
			(0.018)
(ICT_0) x (t=2006) x (Boom cohort)			-0.001
			(0.022)
(ICT_0) x (t=2010) x (Boom cohort)			0.001
			(0.024)
(ICT_0) x (t=2015) x (Boom cohort)			-0.001
			(0.028)
Adjusted-R2	.55	.81	.36
Observations	24,540	23,397	34,013

4.11. TABLE 7: WAGE DYNAMICS OF THE POST-BOOM COHORT

*The table presents the OLS estimates of θ_t in equation (14) for skilled entrants of the post-boom cohort 2003-2005. The dependent variable is log wage of worker i in year t. ICT0 is a dummy equal to one if worker i started in the ICT sector. (t=Y) is a dummy equal to one if year t is Y = entry year, 2006, 2010, or 2015. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. Column 2 includes worker fixed effects and use the year of entry as the baseline year. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Log wage		
	(1)	(2)	(3)
ICT_0 x (t=0)	-.022**		
	(.010)		
ICT_0 × (t=2006)	-.020*	.009	-.020*
	(.011)	(.009)	(.011)
ICT_0 × (t=2010)	-.002	.026**	-.002
	(.014)	(.012)	(.014)
ICT_0 × (t=2015)	.004	.027	.004
	(.019)	(.017)	(.019)
ICT_0 × (t=2006) × Boom cohort			-.005
			(.015)
ICT_0 × (t=2010) × Boom cohort			-.049***
			(.018)
ICT_0 × (t=2015) × Boom cohort			-.066***
			(.024)
Worker controls	✓	✓	✓
Worker FE	–	✓	–
Observations	15,424	14,815	26,260
Sample	Post-boom cohort	Post-boom cohort	Boom+Post-boom cohorts

Replicated:

Log wage			
	w/o FE	w/ FE	boom/post
$ict0_0$	-0.022**		
	(0.010)		
(ICT_0) x (t=2006)	-0.020*	0.009	-0.020*
	(0.011)	(0.009)	(0.011)
(ICT_0) x (t=2010)	-0.002	0.026**	-0.002
	(0.014)	(0.012)	(0.014)
(ICT_0) x (t=2015)	0.004	0.027	0.004
	(0.019)	(0.017)	(0.019)
(ICT_0) x (t=2006) x (Boom cohort)			-0.005
			(0.015)
(ICT_0) x (t=2010) x (Boom cohort)			-0.049***
			(0.018)
(ICT_0) x (t=2015) x (Boom cohort)			-0.066***
			(0.024)
Adjusted-R2	.47	.76	.31
Observations	15,424	14,815	26,260

4.12. TABLE 8: WAGE GROWTH AND JOB SKILL CONTENT

*The table presents OLS estimations of Equation (15) for skilled entrants of the boom cohort 1998{2001. The dependent variable is wage growth of worker i from entry year to 2015. ICT_0 is a dummy equal to one if worker i started in the ICT sector. STEM occupation is a dummy equal to one if worker i has a STEM (as opposed to management/business) occupation in her first job. TechFirm is the fraction of STEM workers in worker i's initial employer. TechSector is the fraction of STEM workers in worker i's initial four-digit industry. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Log wage 2015 − log wage entry				
	(1)	(2)	(3)	(4)	(5)
ICT_0	-.027	-.044	-.05	-.035	-.044
	(.039)	(.032)	(.034)	(.04)	(.041)
ICT_0 × STEM occupation	-.099**				
	(.042)				
ICT_0 × TechFirm		-.11***	-.12***		
		(.043)	(.043)		
$(1 - ICT_0)$ × TechFirm			-.031		
			(.036)		
ICT_0 × TechSector				-.16**	-.16**
				(.077)	(.077)
$(1 - ICT_0)$ × TechSector					-.091
					(.081)
Worker controls	✓	✓	✓	✓	✓
Observations	4,972	4,897	4,897	4,970	4,970

Replicated:

Log wage 2015 - Log wage entry					
	est1	est2	est3	est4	est5
ICT_0	-.027	-.044	-.05	-.035	-.044
	(.039)	(.032)	(.034)	(.04)	(.041)
ICT_0 x Engineer	-.099**				
	(.042)				
ICT_0 x TechFirm		-.11***	-.12***		
		(.043)	(.043)		
$(1 - ICT_0)$ x TechFirm			-.031		
			(.036)		
ICT_0 x TechSector				-.16**	-.16**
				(.077)	(.077)
$(1 - ICT_0)$ x TechSector					-.091
					(.081)
Adjusted-R2	.09	.091	.091	.089	.089
Observations	4,972	4,897	4,897	4,970	4,970

4.13. TABLE 9: WITHIN-JOBS/BETWEEN-JOBS WAGE GROWTH DECOMPOSITION

*The table presents the decomposition of workers' wage growth from entry to 2015 into a within-jobs component and a between-jobs component as defined in the text, for skilled entrants of the boom cohort 1998-2001. ICT_0 is a dummy equal to one if worker i started in the ICT sector. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Log wage 2015 − log wage entry	
	Within-jobs	Between-jobs
	(1)	(2)
ICT_0	-.088***	-.017
	(.015)	(.013)
Worker controls	✓	✓
Observations	4,972	4,972

Replicated:

Log wage 2015 - Log wage entry		
	within	between
ICT_0	-.088***	-.017
	(.015)	(.013)
Adjusted-R2	.07	.033
Observations	4,972	4,972

4.13. TABLE 10: JOB TEMINATION

*The table presents OLS regressions for skilled entrants of the pre-boom cohort 1996-1998, boom cohort 1998-2001, and post-boom cohort 2003-2005. The dependent variable is a dummy equal to one if worker i experiences job termination. In column 1, job termination equals one if the worker switches job within the first four years after entry. In column 2, job termination equals one if the worker has a different employer in 2015 than at entry. In column 3, job termination equals if the worker switches job during the first four years after entry and this switch is associated with a wage drop. In column 4, job termination equals if the worker switches job during the first four years after entry and the initial employer has negative employment growth in the year of the switch. ICT_0 is a dummy equal to one if worker i started in the ICT sector. Pre-boom cohort, Boom cohort, and Post-boom cohort are dummy variables equal to one if the worker enters the labor market over 1994-1996, 1998-2001, and 2003-2005 respectively. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	=1 if job terminated			
	forced or voluntary		forced	
	Within four years	Diff. employer in 2015	Within 4y & Δwage<0	Within 4y & Δemp<0
	(1)	(2)	(3)	(4)
(Pre-boom cohort) × ICT_0	.051**	-.008	-.0078	-.025
	(.024)	(.016)	(.019)	(.021)
(Boom cohort) × ICT_0	.076***	.058***	.046***	.028**
	(.016)	(.0097)	(.013)	(.014)
(Post-boom cohort) × ICT_0	.084***	.057***	-.0017	-.0026
	(.024)	(.018)	(.019)	(.021)
Worker controls	✓	✓	✓	✓
Observations	10,463	10,463	10,463	10,463

Replicated:

=1 if job is terminated				
	term-all	term-2015	term-dwage	term-demp
(Pre-boom cohort) x (ICT_0)	.051**	-.008	-.007	-.025
	(.024)	(.016)	(.019)	(.021)
(Boom cohort) x (ICT_0)	.076***	.058***	.046***	.028**
	(.016)	(.0097)	(.013)	(.014)
(Post-boom cohort) x (ICT_0)	.084***	.057***	-.0016	-.0026
	(.024)	(.018)	(.019)	(.021)
Adjusted-R2	.018	.035	.0047	.03
Observations	10,463	10,463	10,463	10,463

Minor discrepancies are indicated with an orange box.

4.14. TABLE 11: WAGE GROWTH AND JOB TERMINATION

*The table presents OLS estimations of Equation (15) for skilled entrants of the boom cohort 1998-2001. The dependent variable is wage growth of worker i from entry year to 2015. ICT_0 is a dummy equal to one if worker i started in the ICT sector. In odd-numbered columns, we include each of the four proxies for job termination used in Table 10 as an explanatory variable. In even-numbered columns, we also include the interaction between ICT0 and the proxy for job termination. Worker controls include sex, age and age squared at entry, entry year, and two-digit occupation at entry. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Original:

	Log wage 2015 − log wage entry							
Proxy for job termination:	Within four years		Diff. employer in 2015		Within 4y & Δwage<0		Within 4y & Δemp<0	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ICT_0	-.102***	-.114***	-.102***	-.081*	-.098***	-.100***	-.104***	-.114***
	(.015)	(.022)	(.015)	(.042)	(.015)	(.016)	(.015)	(.016)
Job termination	-.034***	-.040**	-.053***	-.048**	-.15***	-.15***	-.028*	-.043**
	(.013)	(.016)	(.018)	(.021)	(.017)	(.022)	(.017)	(.021)
ICT_0 × Job termination		.018		-.023		.008		.041
		(.027)		(.043)		(.035)		(.034)
Worker controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972

Replicated:

	Log wage 2015 - log wage entry							
	term-all		term-2015		term-dwage		term-demp	
ICT_0	-0.102***	-0.114***	-0.102***	-0.081*	-0.098***	-0.099***	-0.104***	-0.114***
	(0.015)	(0.022)	(0.015)	(0.042)	(0.015)	(0.016)	(0.015)	(0.016)
Job termination	-0.034***	-0.040**	-0.053***	-0.048**	-0.144***	-0.146***	-0.028*	-0.043**
	(0.013)	(0.016)	(0.018)	(0.021)	(0.017)	(0.022)	(0.017)	(0.021)
(ICT_0) x (Job termination)		0.018		-0.023		0.005		0.041
		(0.027)		(0.043)		(0.035)		(0.034)
Adjusted-R2	.09	.09	.09	.09	.1	.1	.089	.089
Observations	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972

Minor discrepancies are indicated with an orange box.

4.15. TABLE 12: PROMOTION UP THE HIERARCHY

*The table presents OLS regressions for skilled entrants of the boom cohort 1998-2001 and post-boom cohort 2003-2005. In columns 1 and 2, the dependent variable is wage growth of worker i from entry year to 2015. Promotion is a dummy equal to one if worker i has become a manager in her initial industry in 2015. ICT_0 is a dummy equal to one if worker i started in the ICT sector. In column 3, the dependent variable is the promotion dummy. Boom cohort is a dummy equal one if the worker enters the labor market over 1998-2001. Worker controls include sex, age and age squared at entry, entry year, two-digit occupation at entry, and four-digit industry fixed effects. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

	Log wage 2015 − log wage entry		=1 if Promotion
	(1)	(2)	(3)
Promotion	.22***	.22***	
	(.023)	(.028)	
Promotion × ICT_0		-0.012	
		(.048)	
ICT_0 × Boom Cohort			-.0088
			(.022)
Worker controls	✓	✓	✓
Industry FE	✓	✓	✓
Observations	4,228	4,228	4,228

	est1	est2	est3
Promotion	.22***	.22***	
	(.023)	(.028)	
Promotion x ICT_0		-.012	
		(.048)	
ICT_0 x (Boom cohort)			.0088
			(.022)
Adjusted-R2	.17	.17	.026
Observations	4,228	4,228	4,228

4.16. CONCLUSION

We replicated all the results with a few minor discrepancies (mainly rounding errors).