Evidencia Reciente

January 3, 2021

Labor supply effects of the recent social security benefit cuts: Empirical estimates using cohort discontinuities

- Aumento de la NRA en EUA
- Se aprueba en 1983
- Empieza a regir a partir de 2000
- Analiza el impacto sobre la edad de retiro efectiva.

Política

Evidencia Descriptiva

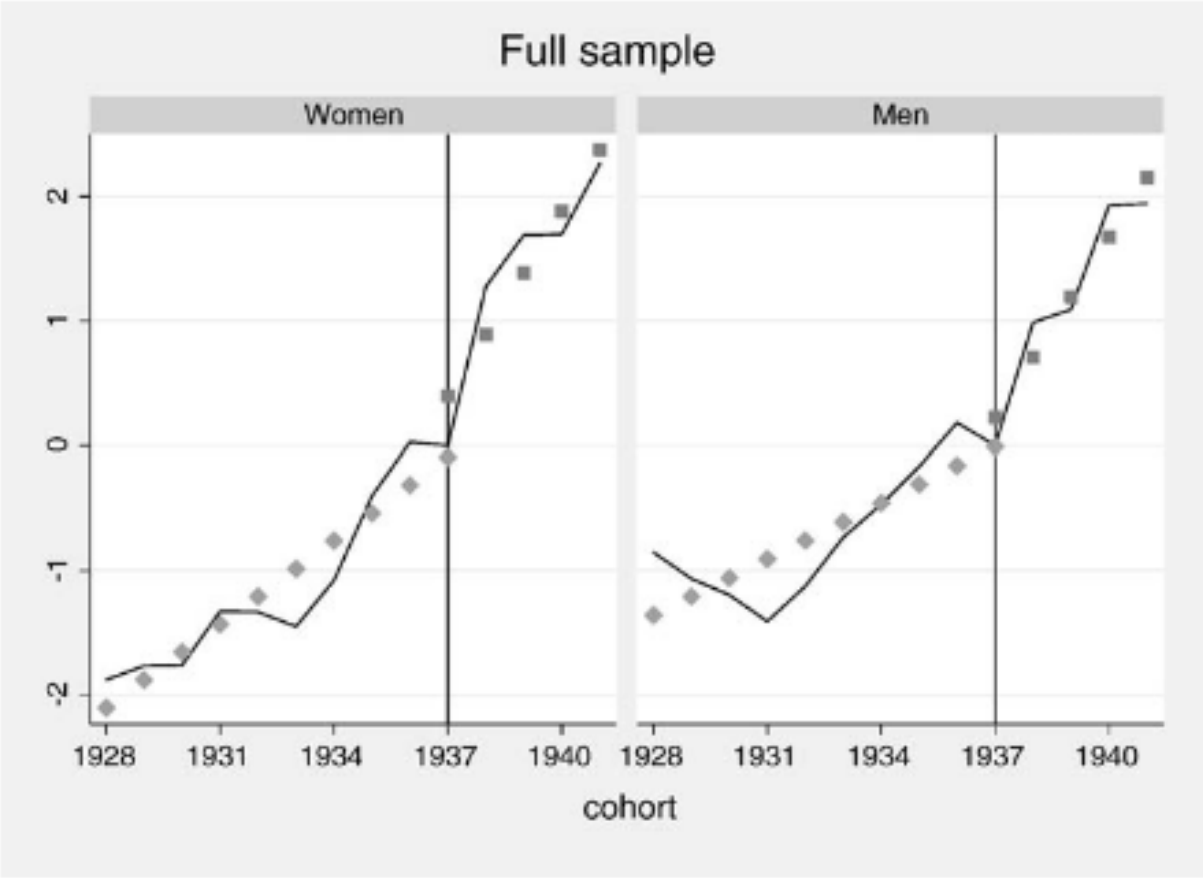


Fig. 1. Change in the average retirement age (in months) with respect to the 1937 birth cohort (solid line) and its piecewise linear fit (dots). Full sample. NOTE.— Based on individuals between ages 62 and 65.

Figure: Descriptivos

Estrategia

- Diff-in-diff
- Cohortes 1928-1937 (control)
- Cohortes 1938-1941 (tratamiento)

Resultados

Table 5
Estimated trend in the average retirement age (in months).

	(1)	(2)	(3)	(4)	(5)	(6)
	Sophisticated		Naive		Restricted	
Panel A: Female Sample						
C:1928–37	0.12	−0.32	0.23	−0.20	0.12	0.30
	(0.12)	(0.16) *	(0.09) **	(0.14)	(0.16)	(0.25)
T:1938–41	1.03	0.88	0.81	0.59	1.00	1.09
	(0.21) **	(0.26) **	(0.15) **	(0.20) **	(0.27) **	(0.31) **
T–*C*:	0.91	1.20	0.58	0.78	0.88	0.79
	(0.31) **	(0.35) **	(0.23) **	(0.26) **	(0.40) *	(0.45)
Panel B: Male Sample						
C:1928–37	−0.05	−0.30	0.12	0.19	0.11	0.93
	(0.13)	(0.17)	(0.10)	(0.16)	(0.17)	(0.27) **
T:1938–41	1.04	1.31	0.68	0.80	1.06	1.28
	(0.22) **	(0.28) **	(0.17) **	(0.21) **	(0.29) **	(0.33) **
T–*C*:	1.10	1.60	0.55	0.61	0.94	0.35
	(0.34) **	(0.38) **	(0.25) *	(0.28) *	(0.43) *	(0.48)
Other *Xs*	No	Yes	No	Yes	No	Yes

NOTE.— The sample contains individuals from the CPS monthly surveys from January 1989 to January 2007 born between 1928 and 1941. The Table shows the sample analog of Eq. (5). Other Xs include marital status, education, race, total members of the household, geographic region, unemployment rate and average hours of work for workers aged 50 to 55, the cost of living adjustments (COLA), the Dow Jones stock market index, the delayed retirement credit interacted with age dummies, a post-January 2000 dummy interacted with age. Standard errors clustered by individuals in parentheses, *significant at 5%, **significant at 1%.

Discusión

- El crecimiento de la edad promedio de retiro se acelera para los cohortes que enfrentan la nueva NRA.
- La edad efectiva de retiro aumenta 50% del aumento de la NRA.

Employment and substitution effects of raising the statutory retirement age in France

- Francia, *Régime Général*, cubre $\frac{2}{3}$ de la población.
- Suba gradual de la EMR de 60 a 62 en 2010.
- Hay un cambio en la ENR que afecta otras cohortes.

Identificación

- Evalúa el impacto de la suba de 60 a 61 sobre oferta laboral y sustitución por otros programas.
- La primera cohorte afectada es la nacida a finales de 1951, su ERA pasó a 60 años y 4 meses.
- La cohorte 1955 tiene una era de 62 años.

Evidencia Descriptiva

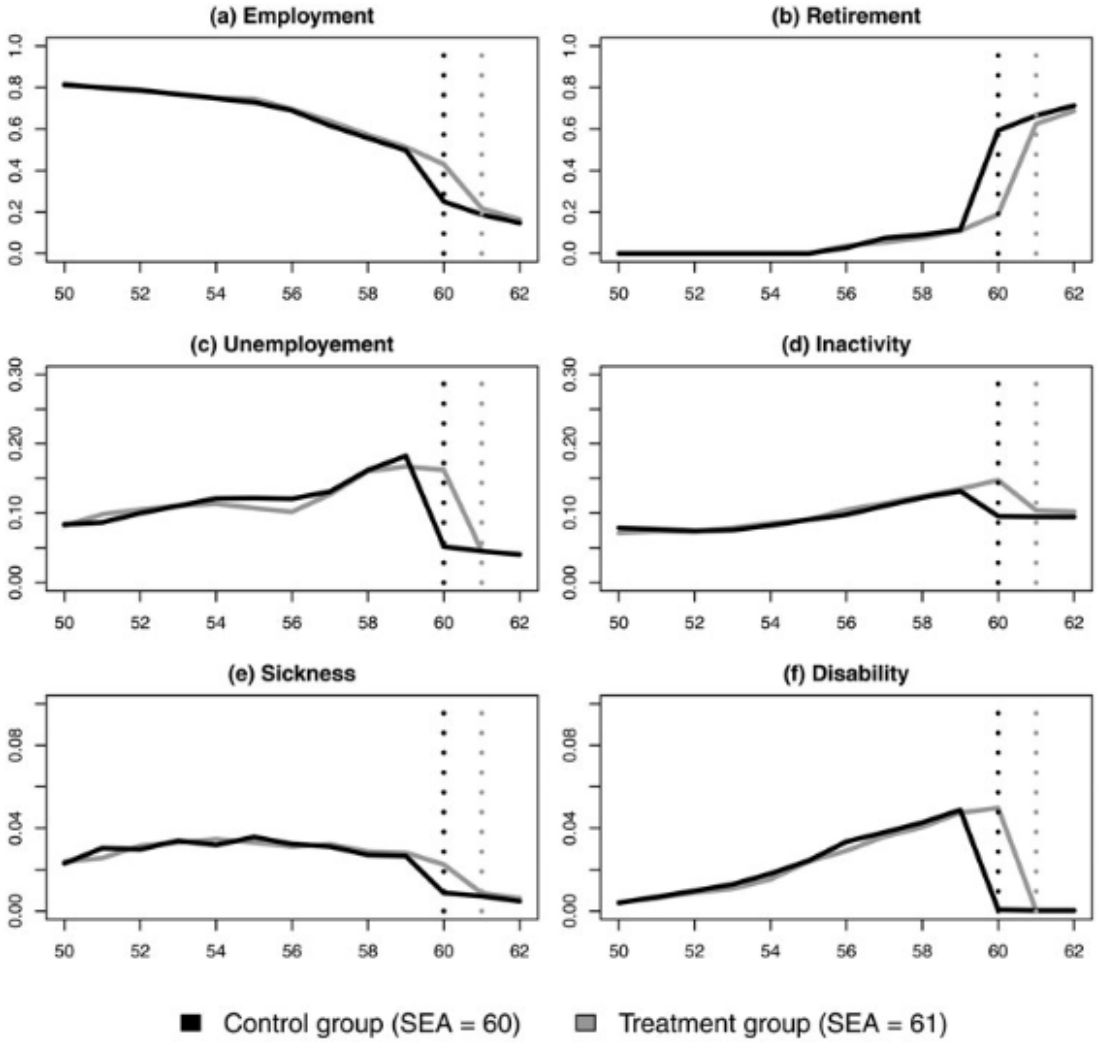


Figure 2. Workstate trends by age: treatment *vs.* control group
Source: *Cnav* 1/20th sample. *Reading*: These panels present the proportion of individuals in each possible labor force status. The control group (in black) faces a SEA of 60, and the treated group (in gray) faces a SEA of 61.

Figure: Descriptiva

Evidencia Descriptiva

- La cohorte de control tiene mayor probabilidad de retirarse (los trabajadores menores de la EMR pueden retirarse si tienen carreras de trabajo largas).
- Los miembros de la cohorte tratada tienen mayor probabilidad de estar trabajando.
- Los miembros de la cohorte tratada tienen mayor probabilidad de estar desempleados.
- Los miembros de la cohorte tratada tienen mayor probabilidad de estar inactivos, en seguro de enfermedad e invalidez.

Varias especificaciones

Table 4. Effect of the increase of SEA on employment rates at age 60

Under SEA	0.223***	0.224***	0.209***	0.225***
	(0.008)	(0.008)	(0.011)	(0.008)
Constant	0.547***	0.436***	0.462***	0.454***
	(0.009)	(0.009)	(0.013)	(0.021)
Pre-reform	0.284	0.284	0.284	0.284
Observations	215,956	211,952	211,952	211,952
R-squared	0.156	0.194	0.195	0.194
Controls	No	Yes	Yes	Yes
Time effect	None	None	Deaton	Proxy

Reading: Standard errors in parentheses. Significance level: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
Notes: This table displays the estimate of the effect of SEA_{gen} on employment rates (β_4 coefficient of equation (1)). Additional controls in columns (2)–(5) are gender, country of birth, average earning before 50, number of trimesters worked before 50 and number of trimesters contributed before 50.
Source: *Cnav* 1/20th sample.

Otros Estados

Table 5. Labor market outcome and DD estimate at age 60

Variables	Employment	Unemployment	Sickness	Disability	Inactivity	Retirement
Under SEA	0.209***	0.134***	0.014***	0.059***	0.062***	−0.478***
	(0.011)	(0.008)	(0.004)	(0.004)	(0.008)	(0.006)
Pre-reform mean	0.284	0.065	0.01	0	0.115	0.525

Reading: Standard errors in parentheses. Significance level: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Notes: This table displays the estimate of the effect of SEA_{gen} on different possible outcomes. All specifications include controls (gender, country of birth, average earning before 50, number of trimesters worked before 50 and number of trimesters contributed before 50), and use a Deaton specification for the year dummies. Reported pre-policy means are for individuals of cohorts 1950–1951 at age 60.
Source: *Cnav* 1/20th sample.

Discusión

Las regresiones permiten controlar por X, Y, Z. Permiten establecer efectos causales de aumentar la EMR.

- La probabilidad de estar empleado sube aprox. 20%.
- Efectos sustitución con otros programas altos (13.5 % seguro de desempleo)
- Efectos menores pero significativos sobre invalidez, enfermedad e inactividad.

Efectos Heterogéneos

Table 7. Heterogeneous effects of the reform

	Dependent variables					
	Employment	Unemployment	Sickness	Disability	Inactivity	Retirement
Reference	0.209***	0.134***	0.014***	0.059***	0.062***	−0.478***
	(0.011)	(0.008)	(0.004)	(0.004)	(0.008)	(0.006)
Pre-reform	0.284	0.065	0.01	0	0.115	0.525
Health status						
Good health	0.225***	0.122***	0.013***	0.013***	0.066***	−0.439***
	(0.013)	(0.009)	(0.003)	(0.002)	(0.009)	(0.006)
Pre-reform	0.331	0.069	0.008	0	0.112	0.479
Bad health	0.206***	0.170***	0.013	0.073***	0.075***	−0.537***
	(0.037)	(0.031)	(0.016)	(0.012)	(0.024)	(0.018)
Pre-reform	0.178	0.083	0.015	0.001	0.111	0.613
Very bad health	0.109***	0.176***	0.024	0.324***	0.030	−0.663***
	(0.030)	(0.025)	(0.023)	(0.024)	(0.021)	(0.014)
Pre-reform	0.08	0.029	0.015	0.001	0.139	0.738
Duration						
High duration	0.354***	0.233***	0.017***	0.080***	0.046***	−0.731***
	(0.014)	(0.012)	(0.006)	(0.006)	(0.005)	(0.006)
Pre-reform	0.188	0.017	0.006	0	0.016	0.773
Low duration	0.040**	0.028**	0.010*	0.037***	0.077***	−0.192***
	(0.018)	(0.012)	(0.006)	(0.005)	(0.015)	(0.008)
Pre-reform	0.395	0.121	0.014	0.001	0.228	0.24

Reading: Standard errors in parentheses. Significance level: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
Notes: This table displays the estimate of the effect of SEA_{gen} for different populations (in lines) and different outcome variables (in columns). All specifications include controls (gender, country of birth, average earning before 50, number of trimesters worked before 50 and number of trimesters contributed before 50), and use a proxy specification for the year dummies. Reported pre-reform means are for individuals of cohorts 1950–1951 at age 60.
Source: *Cnav* 1/20th sample.

Does Raising the Retirement Age Increase Employment of Older Workers?

- Staubli y Zweimüller (2011 - IZA)
- Austria, aumento de la ERA en 2000 y 2004
- Cohortes afectadas:
- Compara las cohortes por debajo y por encima de la ERA.

Evidencia Descriptiva

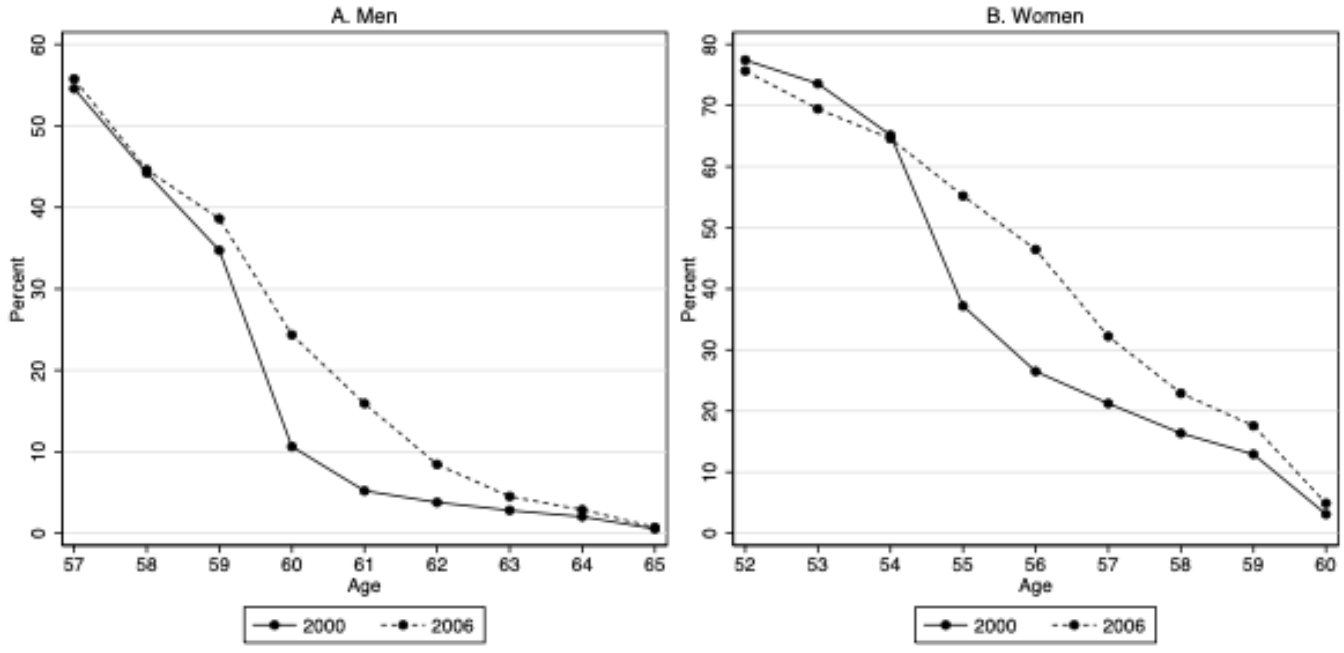


Figure 1: Percentage of men and women working by age in 2000 and 2006.
Source: Own calculations, based on Austrian Social Security Data.

Figure: Evidencia

Más evidencia descriptiva

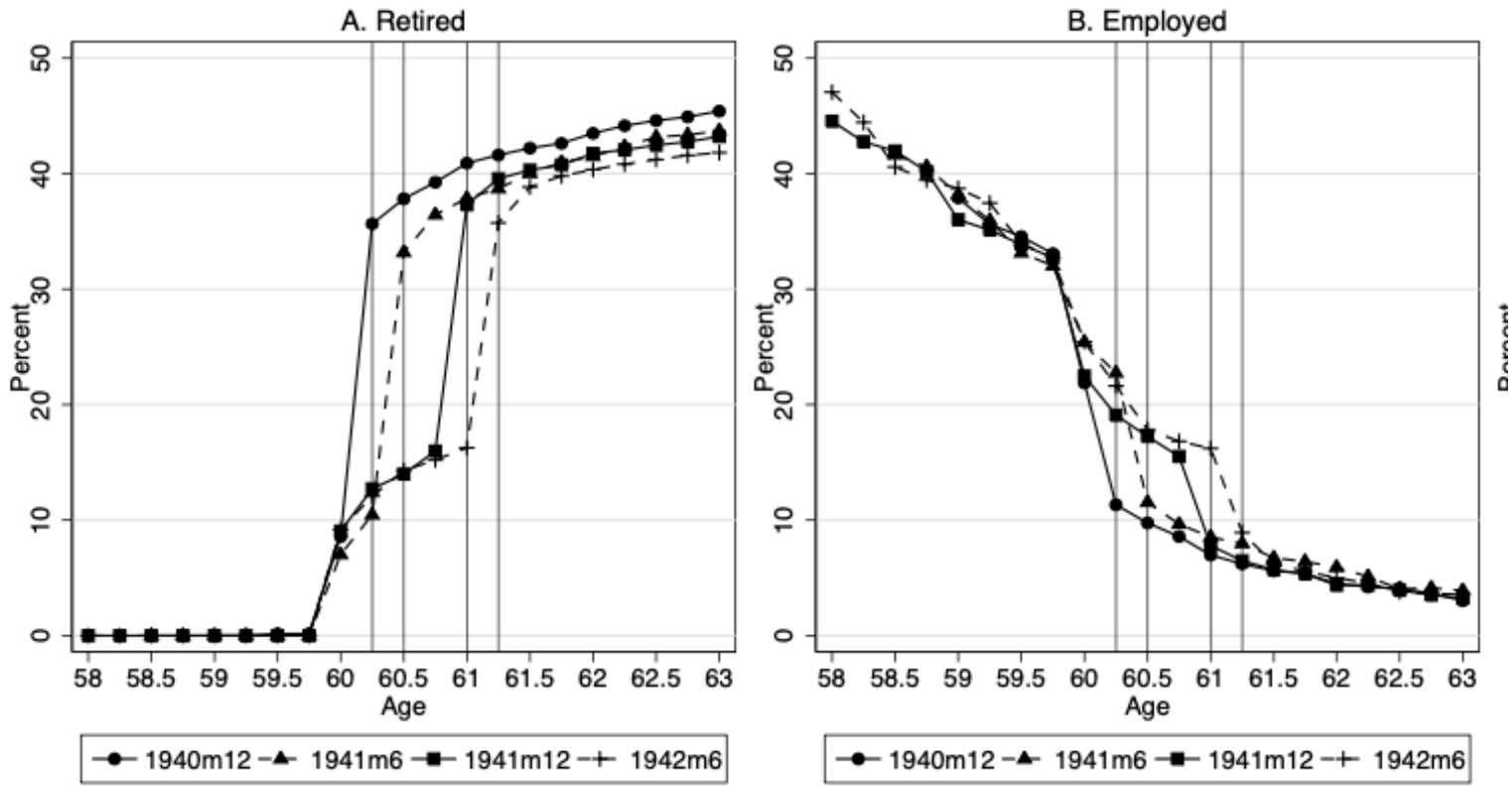


Figure: Salida 2

Salida 1

Table 2: Effects on retirement, employment, and non-employment

	Men				Women			
	No controls	With controls	Age × time trends	At least 45 CY	No controls	With controls	Age × time trends	At least 40 CY
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Retired								
Below	-18.63***	-18.40***	-18.45***	-1.68***	-23.90***	-22.40***	-22.57***	-1.95**
	(0.20)	(0.16)	(0.17)	(0.54)	(0.20)	(0.17)	(0.18)	(0.77)
R^2	0.061	0.319	0.319	0.305	0.165	0.372	0.372	0.329
Mean	40.08	40.08	40.08	82.67	48.04	48.04	48.04	78.48
B. Employed								
Below	7.33***	6.16***	6.33***	1.35***	10.47***	8.79***	8.60***	1.09
	(0.13)	(0.11)	(0.12)	(0.52)	(0.19)	(0.15)	(0.17)	(0.76)
R^2	0.046	0.194	0.194	0.342	0.054	0.223	0.223	0.316
Mean	6.73	6.73	6.73	14.96	29.16	29.16	29.16	20.48
C. Not employed								
Below	11.30***	12.24***	12.12***	0.33	13.43***	13.61***	13.97***	0.87***
	(0.19)	(0.14)	(0.16)	(0.21)	(0.19)	(0.16)	(0.18)	(0.24)
R^2	0.010	0.385	0.385	0.041	0.026	0.213	0.213	0.043
Mean	53.19	53.19	53.19	2.37	22.80	22.80	22.80	1.03
Obs.	1,646,691	1,646,691	1,646,691	91,851	1,604,993	1,604,993	1,604,993	53,281

Notes: This Table displays coefficients from a linear probability model. Standard errors, in parentheses, are clustered at the individual level. Coefficient estimates and standard errors are multiplied by 100 and should be interpreted as percentage points. Controls are experience and its square, blue-collar status, insurance years, annual earnings, average earnings over the

Salida 1

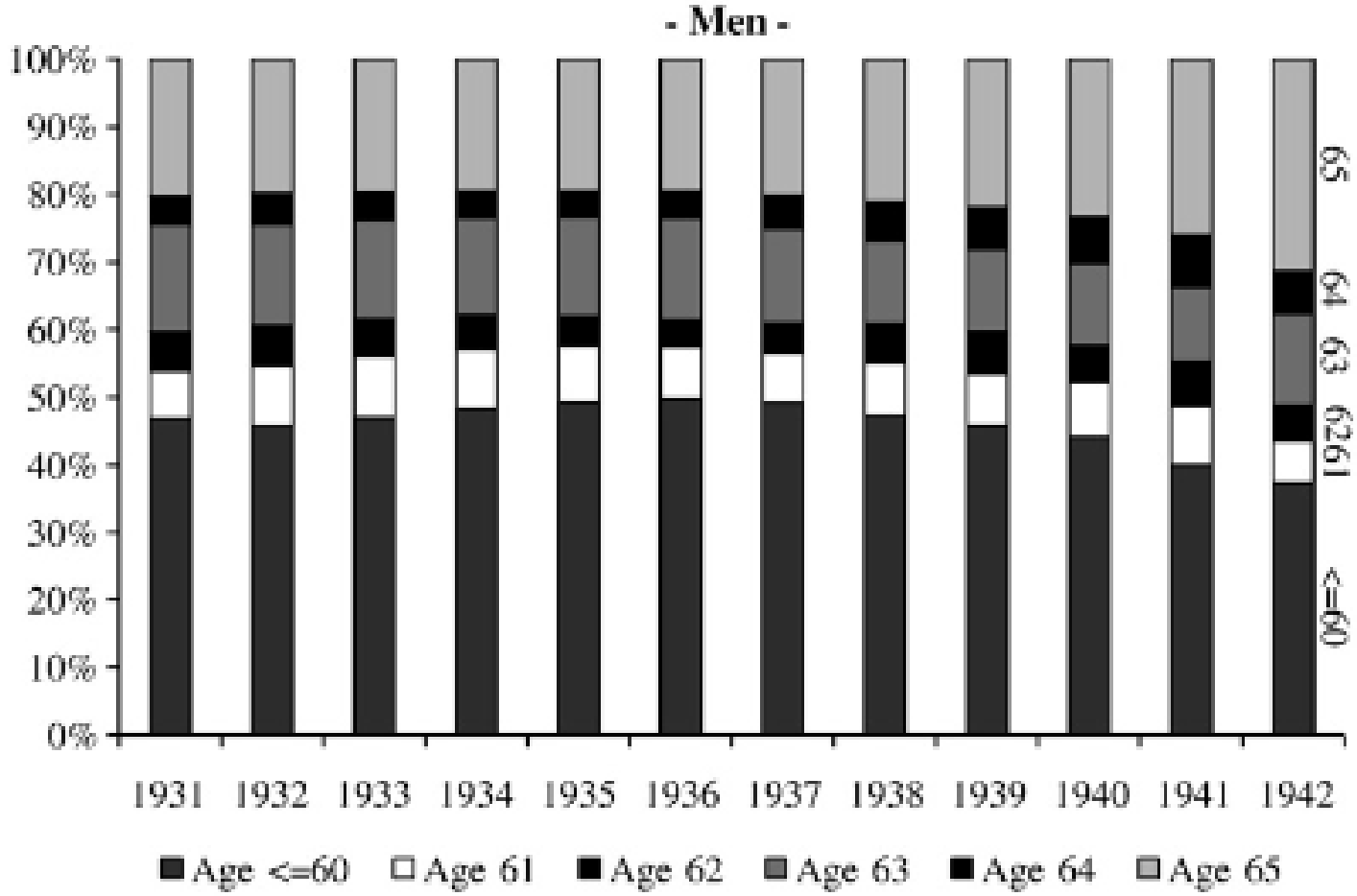
Table 3: Effects on unemployment, disability, part-tim work, and not in the labor force

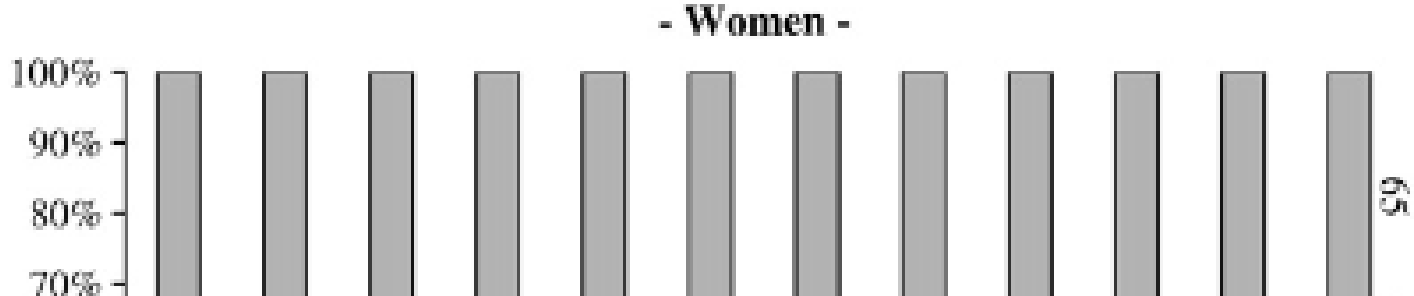
	Men				Women			
	No controls (1)	With controls (2)	Age × time trends (3)	At least 45 CY (4)	No controls (5)	With controls (6)	Age × time trends (7)	At least 40 CY (8)
A. Unemployed								
Below	9.48***	9.84***	9.92***	0.04	9.75***	10.83***	11.13***	0.12*
	(0.11)	(0.11)	(0.12)	(0.03)	(0.13)	(0.13)	(0.14)	(0.06)
R^2	0.044	0.105	0.105	0.002	0.022	0.120	0.120	0.005
Mean	0.77	0.77	0.77	0.01	4.27	4.27	4.27	0.03
B. Disabled								
Below	-0.30*	0.82***	0.64***	-0.08	0.39***	0.48***	0.66***	-0.05
	(0.16)	(0.09)	(0.11)	(0.11)	(0.11)	(0.08)	(0.09)	(0.08)
R^2	0.006	0.378	0.378	0.034	0.001	0.089	0.089	0.006
Mean	51.35	51.35	51.35	1.16	13.12	13.12	13.12	0.19
C. Partial retirement								
Below	1.14***	0.77***	0.83***	0.39***	2.43***	1.51***	1.48***	0.93***
	(0.05)	(0.05)	(0.05)	(0.09)	(0.07)	(0.07)	(0.07)	(0.17)
R^2	0.029	0.066	0.066	0.104	0.031	0.081	0.081	0.055
Mean	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03
D. Not in labor force								
Below	0.98***	0.81***	0.72***	-0.03	0.87***	0.79***	0.70***	-0.13
	(0.06)	(0.05)	(0.06)	(0.15)	(0.09)	(0.07)	(0.07)	(0.15)
R^2	0.006	0.038	0.038	0.019	0.001	0.255	0.255	0.031
Mean	40.08	40.08	40.08	82.67	5.37	5.37	5.37	0.78
Obs.	1,646,691	1,646,691	1,646,691	91,851	1,604,993	1,604,993	1,604,993	53,281

Financial incentives to postpone retirement and further effects on employment

- Hanel, 2010
- Alemania
- Reducción de prestaciones por retiro temprano.

Evidencia Descriptiva





Evidencia Descriptiva1

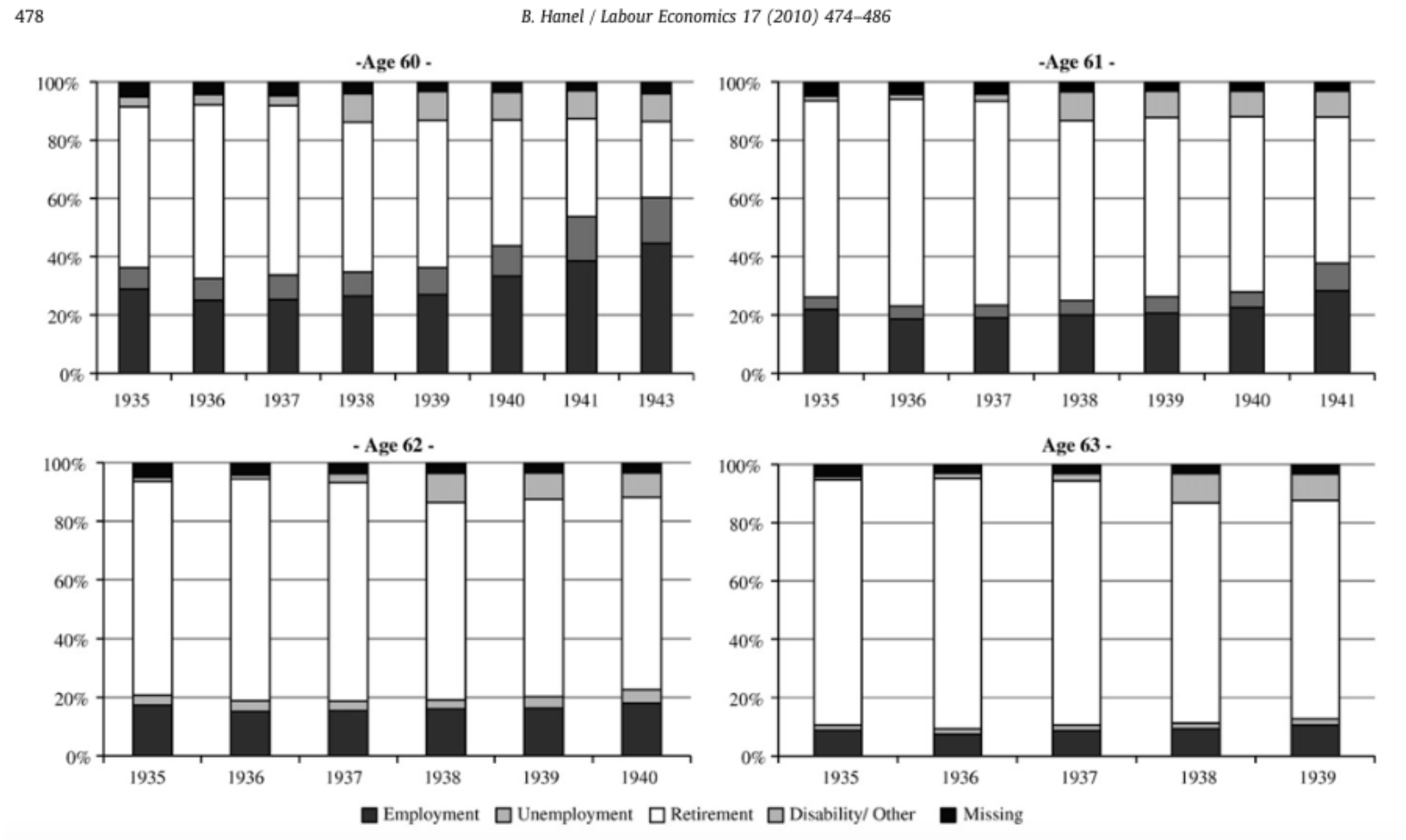


Figure: Salida 2

Salida

Table 3
Total effects of the reform on the expected duration until benefit claiming and employment exit.
Source: FDZ-RV, Versicherungskontenstichprobe 2002, own calculations.

	Expected duration until benefit claiming (from the first month of eligibility)			Expected duration until employment exit (from the age of 55)		
	Before reform	After reform	Difference	Before reform	After reform	Difference
Full sample	13.86	27.72	13.86	55.04	65.51	10.47
Men	15.60	27.83	12.24	57.72	66.53	8.81
Women	6.53	33.17	26.65	50.40	49.85	−0.55
Men (West Germany)	17.38	27.95	10.57	61.36	69.63	8.27
Men (East Germany)	10.95	25.99	15.04	47.22	58.72	11.50
Men (West Germany) by quintiles of benefit claims at age 60						
1st quintile	18.93	33.57	14.64	56.48	57.73	1.25
2nd quintile	15.44	28.45	13.01	59.88	67.62	7.74
3rd quintile	15.56	26.92	11.36	58.85	74.33	15.48
4th quintile	16.35	25.03	8.68	58.45	78.59	20.14
5th quintile	22.04	25.14	3.10	71.03	72.95	1.92

Labour Supply effects of early retirement provision

- Noruega
- Baja de la ERA de 64 a 62.

Política: AFP

- Es un programa de retiro temprano voluntario al que acceden los trabajadores del sector público y la mitad de los trabajadores privados.
- Al principio la edad mínima era 66, se redujo gradualmente a 62 entre 1990 y 1998.
- La edad de retiro normal era 67, y antes de 1989 no había opciones de retiro temprano.
- Los programas de desempleo e invalidez funcionaban como vías de salida del mercado laboral.

AFP: Beneficios

- No hay ajustes actuariales

Evidencia descriptiva

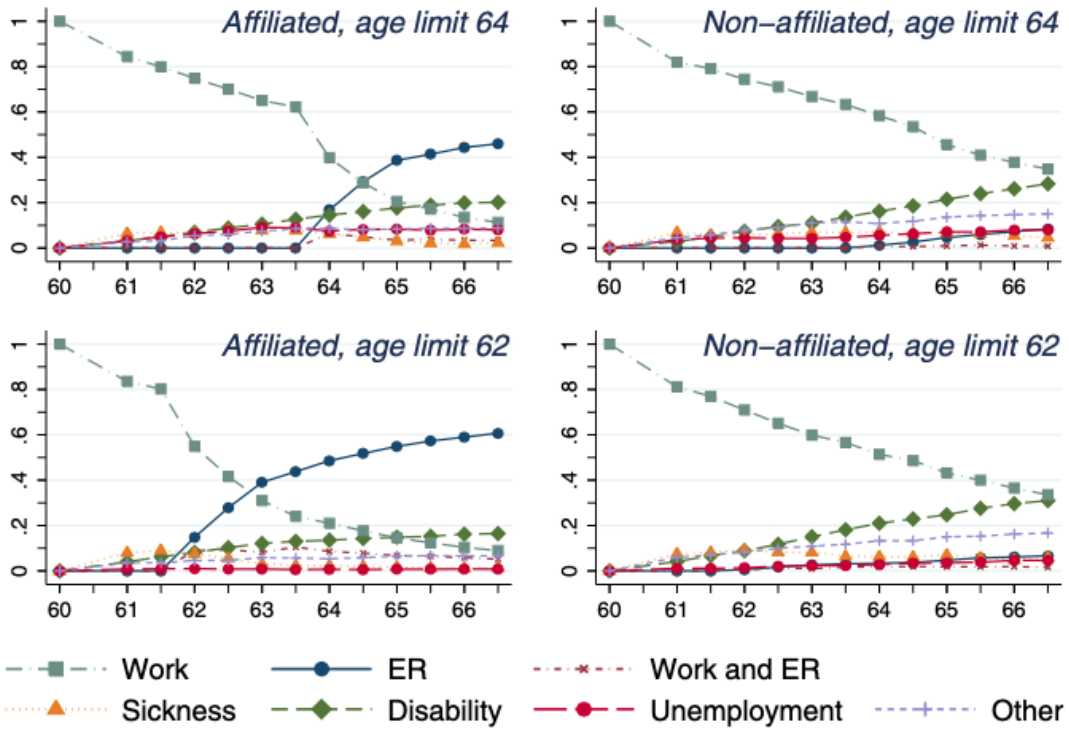


Fig. 2. Observed relative frequencies at different ages; four different groups of workers.

Figure: Descriptivos

Estrategia empírica

- Diff-in-diff usando el grupo de trabajadores con ERA 62 con el de ERA 64.
- Y_{ict} es el estado relevante (trabajando, en seguro de desmpleo o en seguro de invalidez).

$$
\begin{aligned}
y_{ict} = \alpha &+ \beta_1 X_i + \beta_2 \tau_t + \beta_3 \delta_c + \beta_4 D_i \\
&+ \beta_5(\delta_c \times \tau_t) + \beta_6(D_i \times \tau_t) + \beta_7(D_i \times \tau_t) \\
&+ \beta_8(\delta_c \times \tau_t \times D_i)
\end{aligned}
$$

Salida

Table 2
Labour market outcomes, DD and DDD estimates at age 63 and 66.5.

	ER-affiliated workers				Non-affiliated workers			
	Levels (%)		DD		Levels (%)		DD	
	64	62	estimate		64	62	estimate	
I. Age 63								
Work	65.1	31.0	−33.2	(1.9)	66.7	59.9	−6.1	(2.3)
Disability	10.5	12.1	0.7	(1.2)	10.9	15.0	2.8	(1.4)
Sick leave	7.8	3.0	−6.4	(1.1)	7.0	8.2	0.5	(1.3)
Unemployment	9.1	0.8	−5.9	(0.8)	4.2	2.3	0.7	(0.9)
Other	7.4	5.8	−2.5	(1.1)	11.1	10.9	−1.5	(1.3)
ER	0.0	39.1			0.0	2.6		
Work and ER	0.0	8.2			0.0	1.1		
II. Age 66.5								
Work	11.3	8.9	−1.5	(1.4)	34.7	33.6	−0.4	(2.0)
Disability	20.0	16.4	−4.5	(1.4)	28.4	31.0	1.4	(1.7)
Sick leave	2.3	1.3	−2.6	(1.0)	4.6	5.9	0.6	(1.2)
Unemployment	8.1	0.8	−4.9	(0.9)	8.1	4.6	−0.9	(1.0)
Other	8.8	6.6	−3.0	(1.2)	15.0	16.7	0.3	(1.4)
ER	46.0	60.7			8.4	6.6		
Work and ER	3.4	5.2			0.8	1.6		
Sample size	1732	2225	3957		1488	1323	2811	

The first two columns give observed relative frequencies for the cohorts with age limit 64 and 62, respectively. Relative frequencies and point estimates in errors in parentheses. The set of controls in the DD and DDD estimations includes years of experience, days on sick leave and receipt of unemployment benefi to the base year, dummies for full time work, educational attainment, gender, industry, geographical location and firm size (base year).

Figure: Descriptivos

Resultados y discusión

- Se estiman los efectos en la oferta de trabajo de cambios en la edad mínima de retiro, caracterizando el impacto sobre distintos caminos hacia el retiro y la sustitución entre programas.
- La mitad de los jubilados por el programa de retiro temprano estarían trabajando a los 66.5 años sin el programa.
- 70% estarían trabajando a los 63 si la edad fuera 64.
- El principal programa sustituto es la pensión por invalidez.

The Impact of Pension Eligibility Age on Retirement

- Estudian que el aumento de la edad mínima de retiro para las mujeres en Australia en 1993.
- Encuentran reduce 8% la probabilidad de retirarse.
- Encuentran que hay sustitución de programas

Preguntas

- Medir el impacto del cambio en la edad mínima de retiro en la oferta laboral
- Medir la sustitución por otros programas

Canales

El cambio en la edad de retiro afecta la decisión de retiro por dos canales:

- Reduce la riqueza del individuo, induciéndolo a consumir menos ocio.
- Aumenta las contribuciones, y por ende los beneficios (en algunos casos).

Ambos efectos tienen el mismo signo cuando aumenta la edad de retiro, por lo que puede ser difícil separarlos. En el caso de Australia, el segundo efecto no opera, por lo que es un experimento para estudiar el primer efecto aislado.

Antecedentes

- La mayor parte de los trabajos anteriores usan variación cross-section [**?**].
- Se encuentran efectos fuertes de *accrual effects*.
- Usan simulaciones y predicciones *out of sample*.
- Problemas para tomar en cuenta comportamientos asociados a normas de comportamiento.
- Problemas de identificación: cómo separar el efecto de los parámetros del sistema y de las tendencias de retiro.

Variación exógena

- La solución es encontrar una variación exógena para identificar los efectos
- El pionero es [**?**], también es importante [**?**].
- Trabajos similares a este son Hanel (para Suiza).
- Otro grupo de trabajos que analizan los impactos de cambios en los parámetros de la Seguridad Social en la sustitución de programas.

Este trabajo

- Busca aislar el efecto riqueza.
- Encuentran que el efecto de subir la edad mínima de retiro aumentó puntos porcentuales la participación de las mujeres en el mercado laboral.
- Encuentran efectos significativos en el uso de otros programas, especialmente invalidez.