

"The Employment Precariousness Scale (EPRES): Origin, development and applications"

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Working Conditions Surveys (WCS): Convergences and divergences
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Brussels, march 2012

OUTLINE


1. **ORIGINS**

- a. Labour market context
- b. Epidemiologic research agenda

2. **DEVELOPMENT** of EPRES

- a. Concept development
- b. Development of measurement scale
- c. Validation study
- d. Management of the scale

3. **APPLICATIONS** of the scale

- a. Prevalence and distribution
 - b. Association with health
 - c. Other uses, current and future
- 

ORIGINS: Labour market context



Growing flexibility of employment relations, transfer of market risks.

(Rodgers 1989, Standing G. 1999)

De-regulation of employment relations and *re-commodification* of labour.


(Esping-Andersen 1990, Standing G. 1999)

Expansion of *new* forms of employment: contingent, atypical, non-standard (most frequent trajectory towards flexibility).

(Rubery 1989, OECD 1996, Cranford et al 2003, Louie et al. 2006)

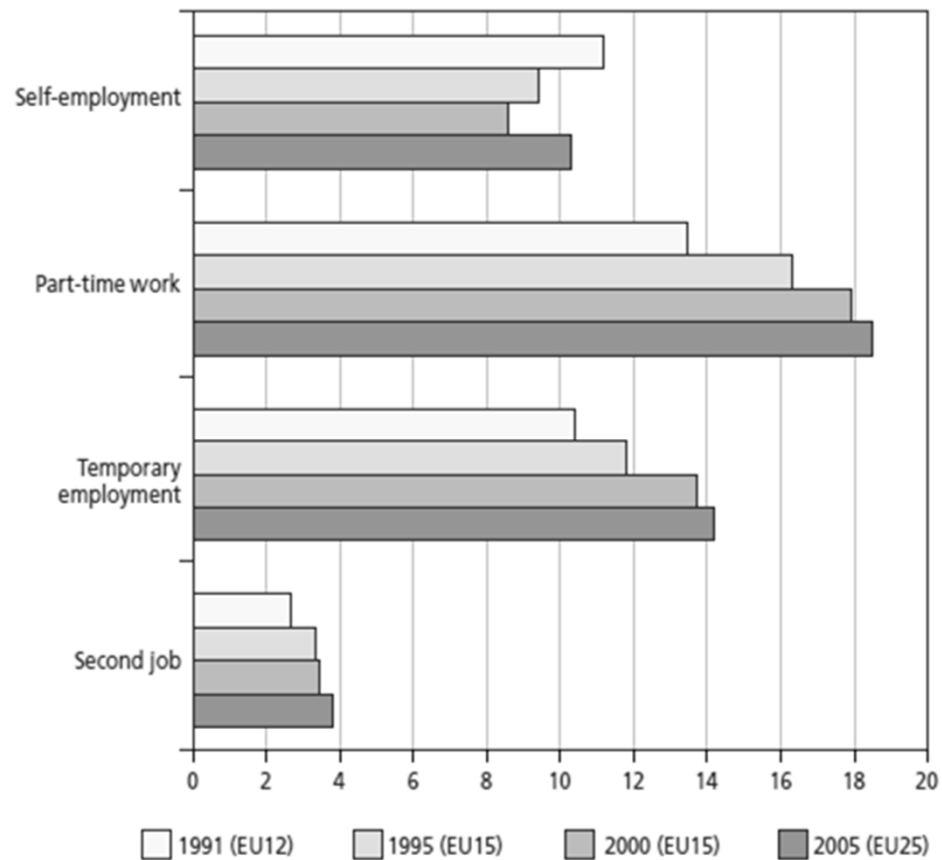
Eg.

Spain: by 2004, there existed 13 legal non-permanent contract forms. (Amable 2006)



Labour market context

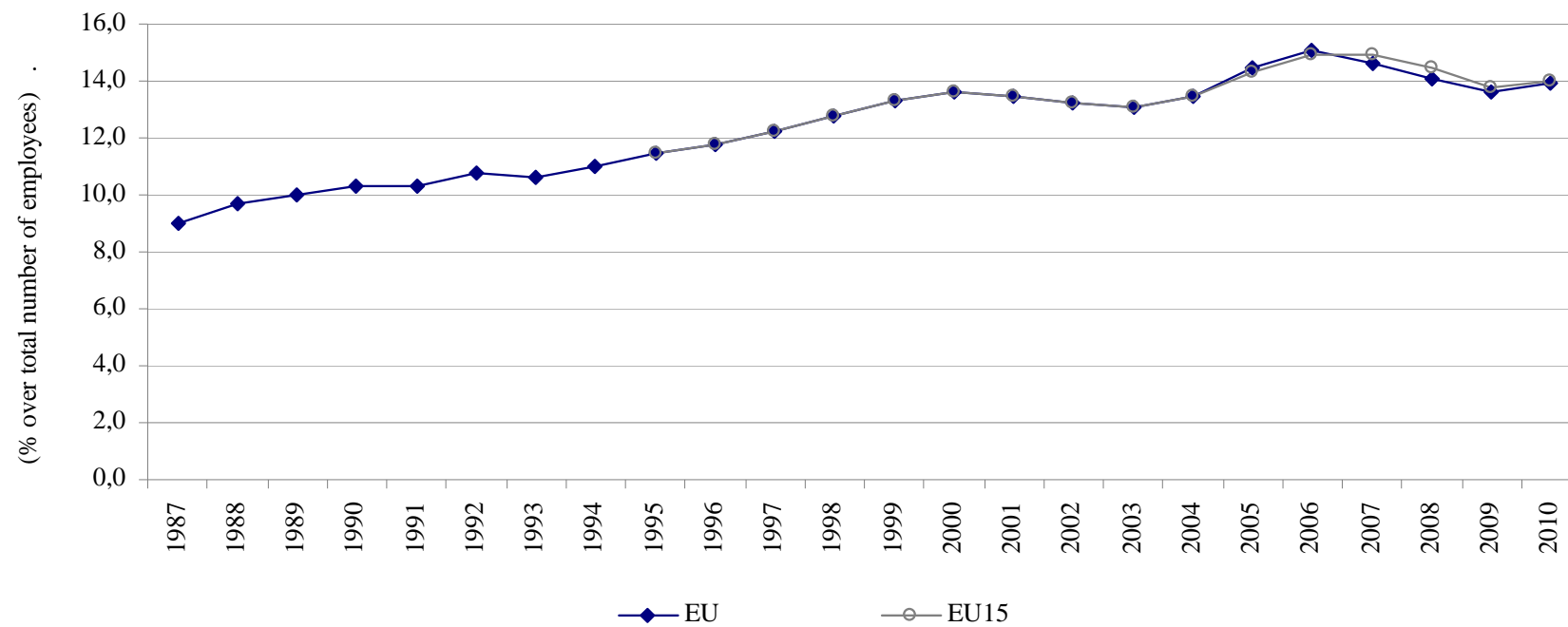
Growth of "flexible", "non-standard", "atypical", "*contingent*" employment.



Source: Parent-Thirion et al 2007. Data from Labour force survey. EU 1991-2005.

Labour market context

Temporary employment (%). EU & EU15, 1987 – 2010.

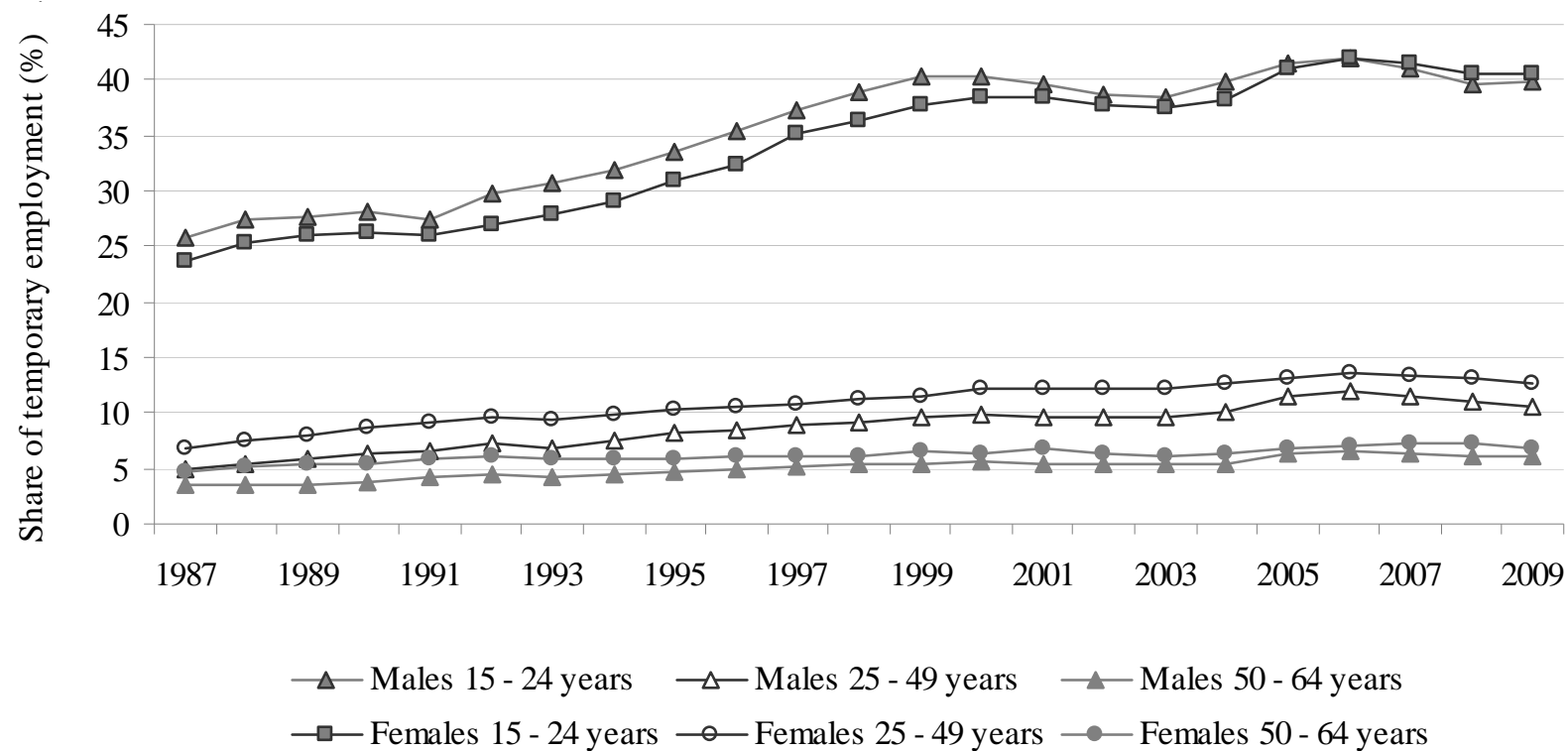


*EU: EU10-1985, EU12-1994, EU15-2004, EU25-2006, EU27

Source: Prepared by the author, based on data from the EU Labour Force Survey (EU LFS), EUROSTAT

Labour market context

Temporary employment (%) according to age and sex. EU*, 1987 – 2010.

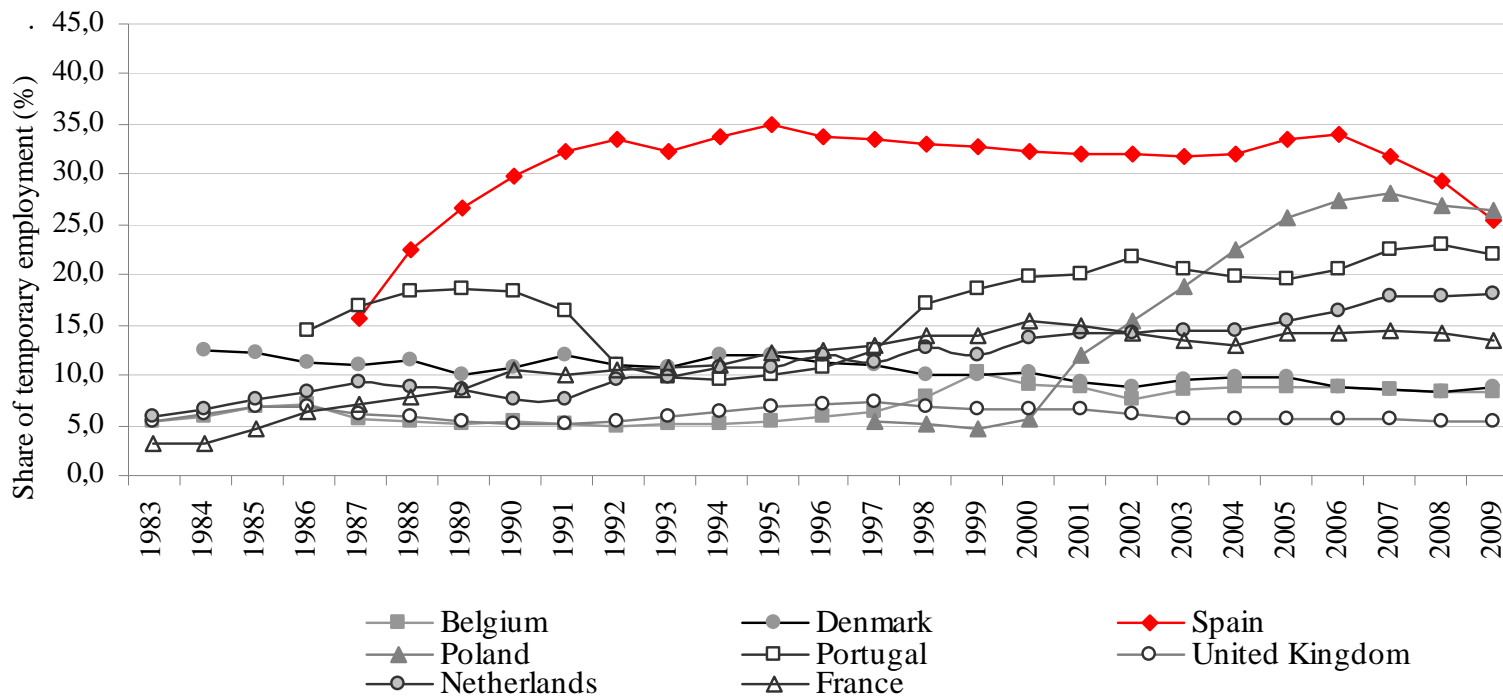


*EU: EU10-1985, EU12-1994, EU15-2004, EU25-2006, EU27

Source: Prepared by the author, based on data from the EU Labour Force Survey (EU LFS), EUROSTAT

Labour market context

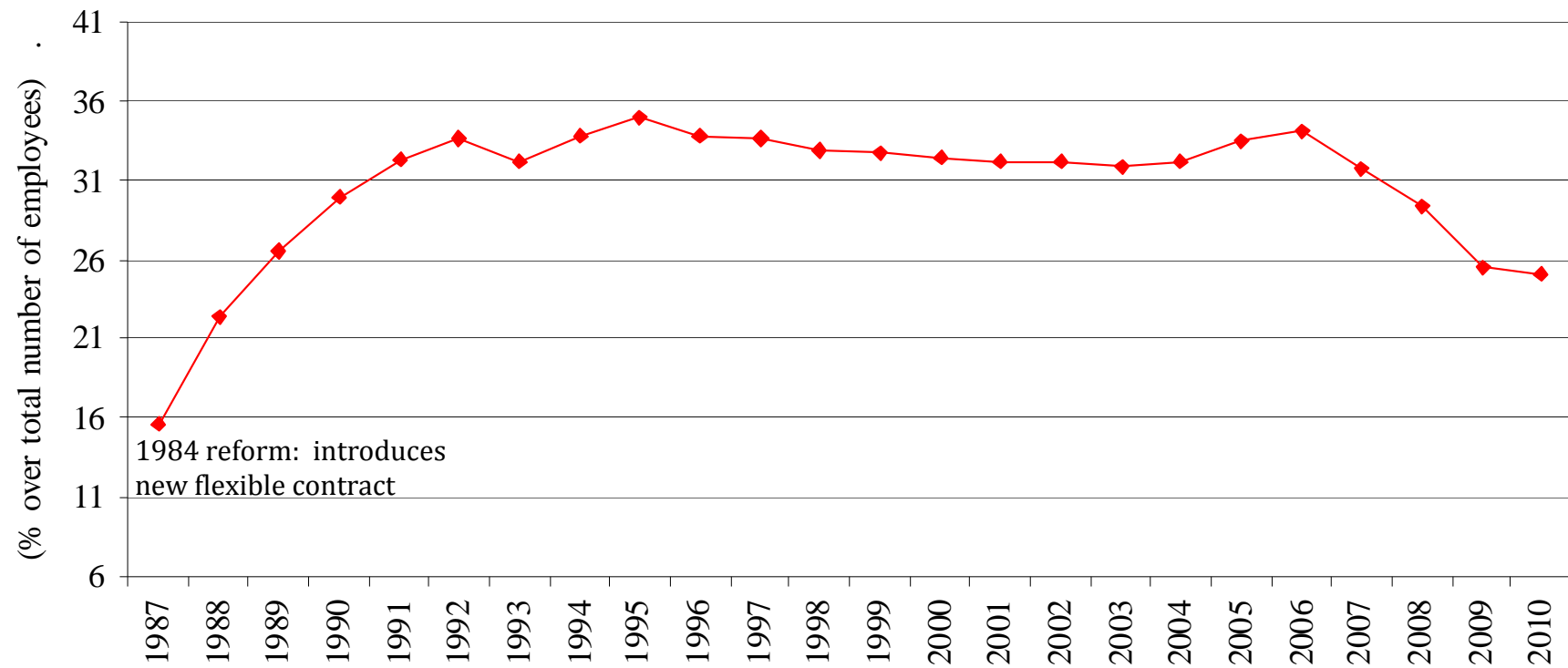
Temporary employment (%). Selected countries, 1983 – 2009.



Source: Prepared by the author, based on data from the EU Labour Force Survey (EU LFS), EUROSTAT

Labour market context

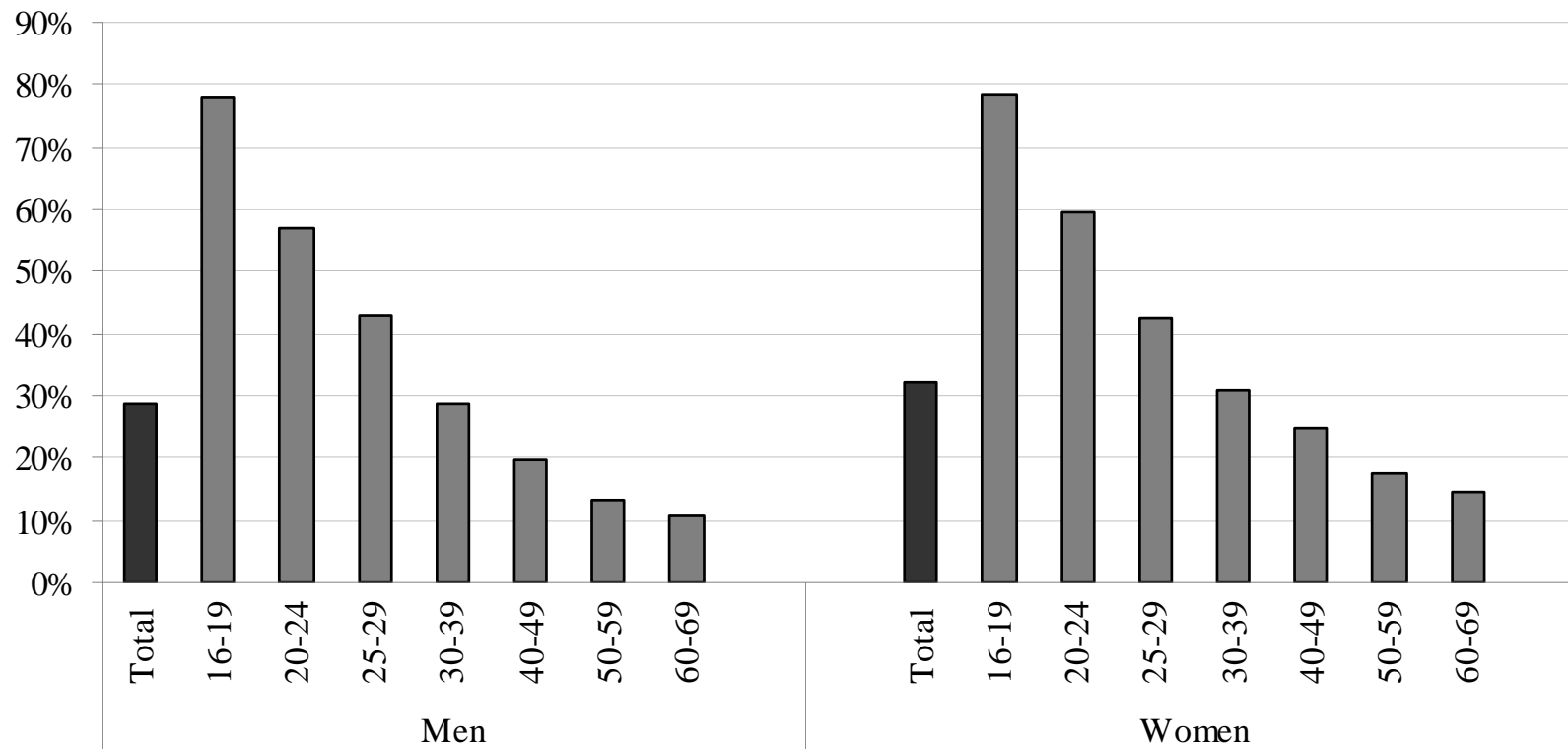
Temporary employment (%). Spain, 1987 – 2010.



Source: Prepared by the author based on data from the EU Labour Force Survey (EU LFS), EUROSTAT

Labour market context

Temporary employment (%) according to sex and age. Spain, period 2005-2010.



Women and men aged 16 – 69 years of age. Trimester data.

Source: Prepared by the author based on data from the Spanish Labour Force Survey (EPA), INE.

ORIGINS: Epidemiologic research agenda



Epidemiologic research agenda

Unemployment & Citation Rates

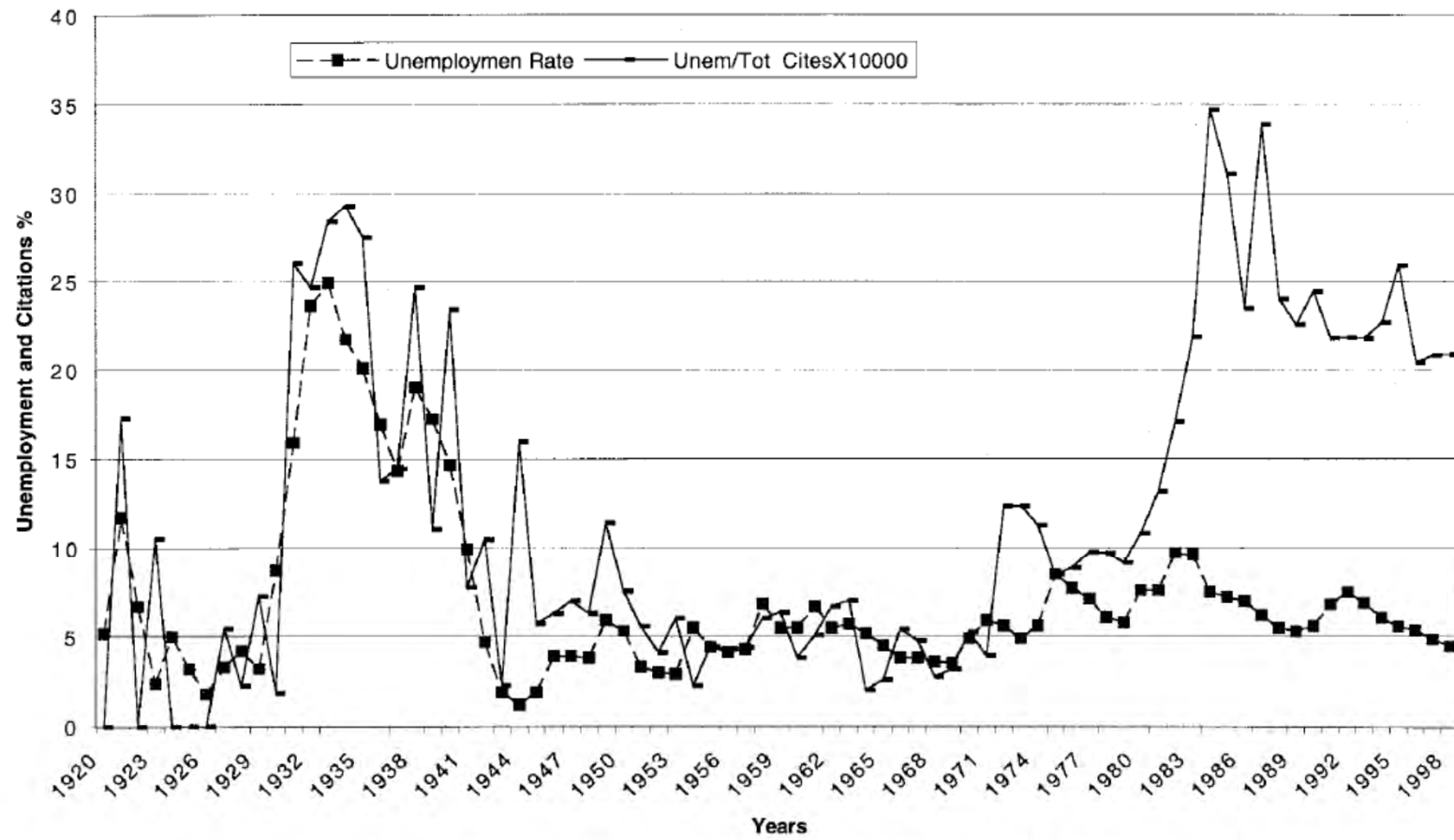


Fig. 2. Rates of U.S. unemployment and PsycINFO unemployment citations: 1917-1998.

Source: Dooley, 2003

Unemployment, Underemployment, and Mental Health

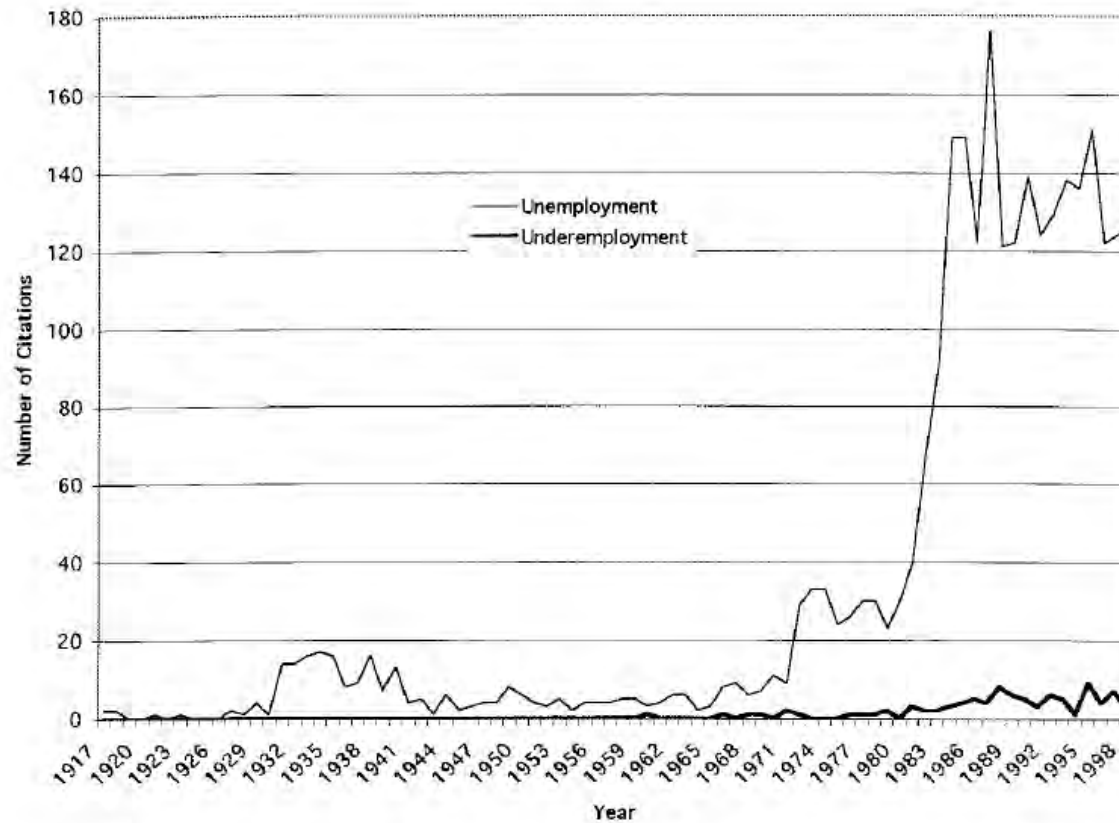
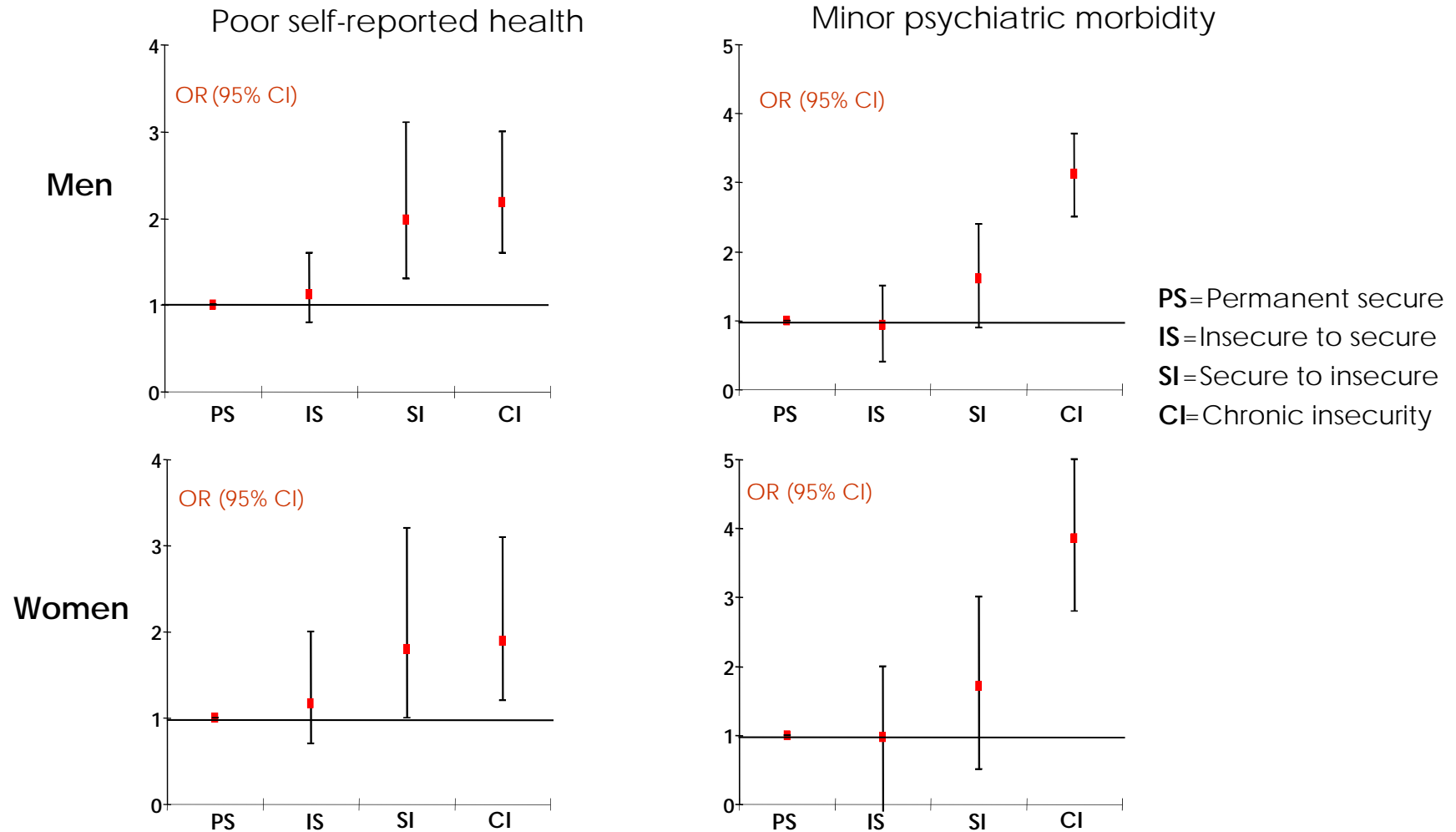


Fig. 1. Unemployment and underemployment PsycINFO citations: 1917–1998.

Source: Dooley, 2003

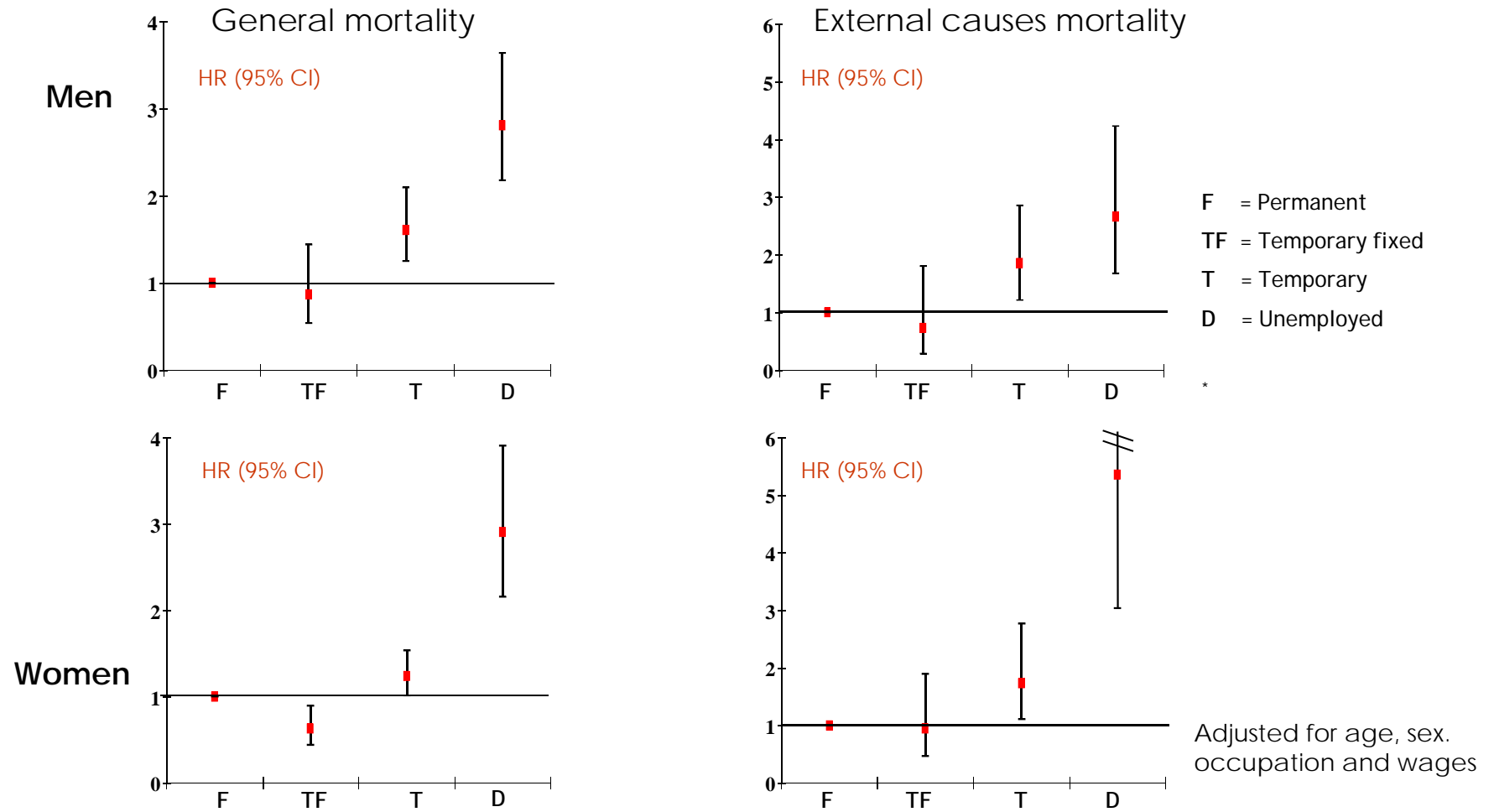
Epidemiologic research agenda

Job insecurity (self-report)



Source: Prepared by Benach J, with data from Ferrie J et al. Effects of chronic job insecurity and change in job security on self-reported health, minor psychiatric morbidity, physiological measures, and health related behaviours in British civil servants: the Whitehall II study. *JECH* 2002;56:450-454.

Temporary Employment



Working conditions
.....

The consequences of flexible work for health: are we looking at the right place?

J Benach, M Amable, C Muntaner, F G Benavides
.....

J Epidemiol Community Health
2002;56:405-406


EDITORIAL

La precariedad laboral ¿un nuevo problema de salud pública?

(Job insecurity. A new public health problem) (Work precariousness. An emergent Public Health problem?)

M. Amable^{1,2}, J. Benach¹

Gac Sanit 2000;14(6):418-421



DEVELOPMENT



DEVELOPMENT

Tesis Doctoral



LA PRECARIEDAD
LABORAL
Y SU IMPACTO
EN LA SALUD.
Un estudio en
trabajadores asalariados
en España.

Marcelo Amable



UNIVERSITAT
POMPEU FABRA

Programa de doctorat de Ciències de la Salut i la Vida 2003-2005
Departament de Ciències Experimentals i de la Salut

Grup de Recerca de les Desigualtats en Salut,
Unitat de Recerca en Salut Laboral.
Universitat Pompeu Fabra

Tesis Doctoral

La precariedad laboral en inmigrantes en España y su relación con la salud: una aproximación cualitativa.

Victoria Porthé

Barcelona, 2008

measurements - association with poor mental health and prevalence in the Spanish workforce

TESI DOCTORAL UPF / 2010

A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce

Alejandra Vives Vergara

DEVELOPMENT

1. Concept development
2. Development of measurement scale
3. Validation study
4. Management of the scale

DEVELOPMENT

1. Concept development
 - Literature review
 - In-depth interviews
 - Focus groups

ORIGINALES

La precariedad laboral y su repercusión
sobre la salud: conceptos y resultados preliminares
de un estudio multimétodos

Amable, M.^{a,b}, Benach, J.^a y González, S.^a

Arch Prev Riesgos Labor 2001;4(4):169-184

Concept development

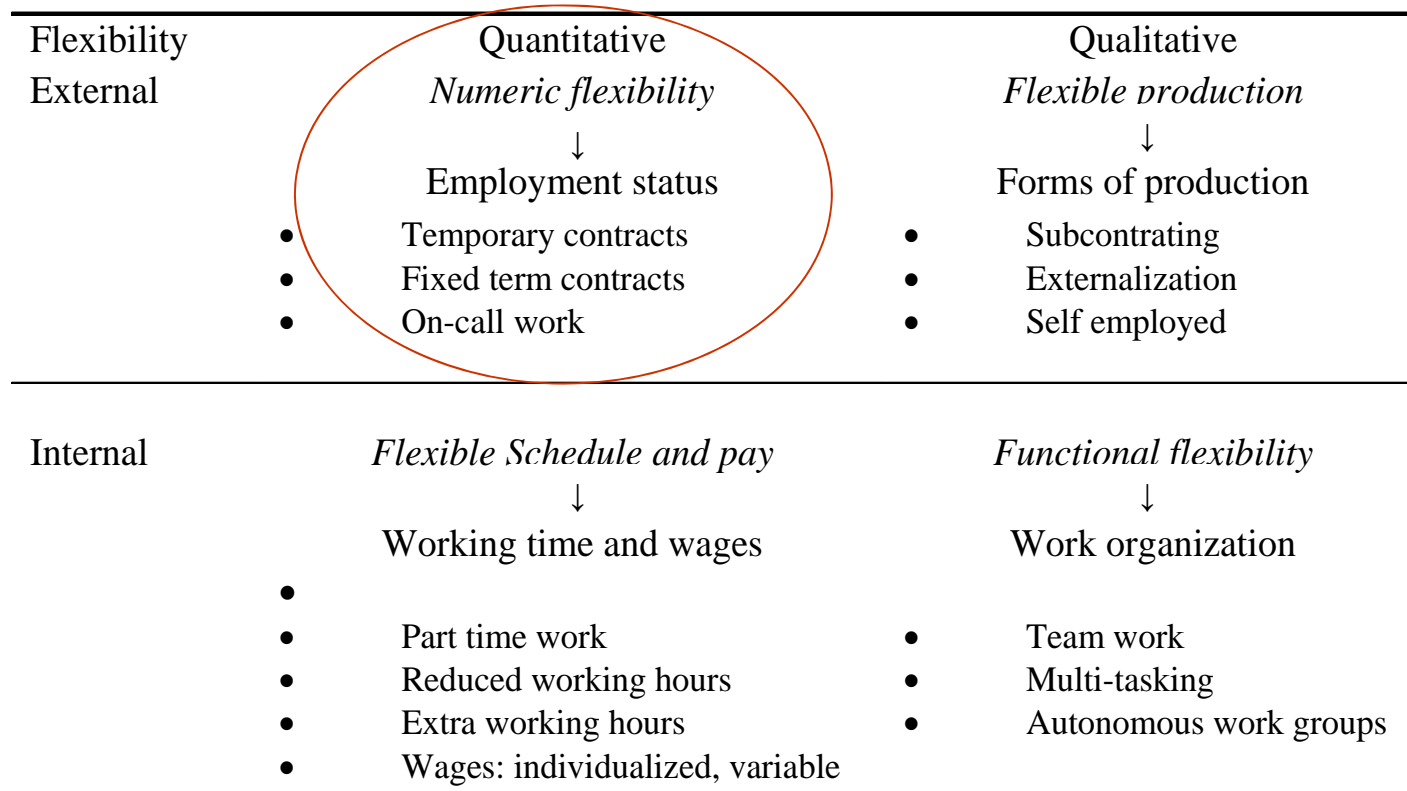
Employment relations:

- Employment relations as MACRO and MICRO level relations
- Employment relations as (unequal) power relations
- Employment relations as determinants of working and living conditions
- Employment relations as determinants of health and health inequalities

Concept development

Flexibility:

Figure. Different types and strategies of work flexibility.

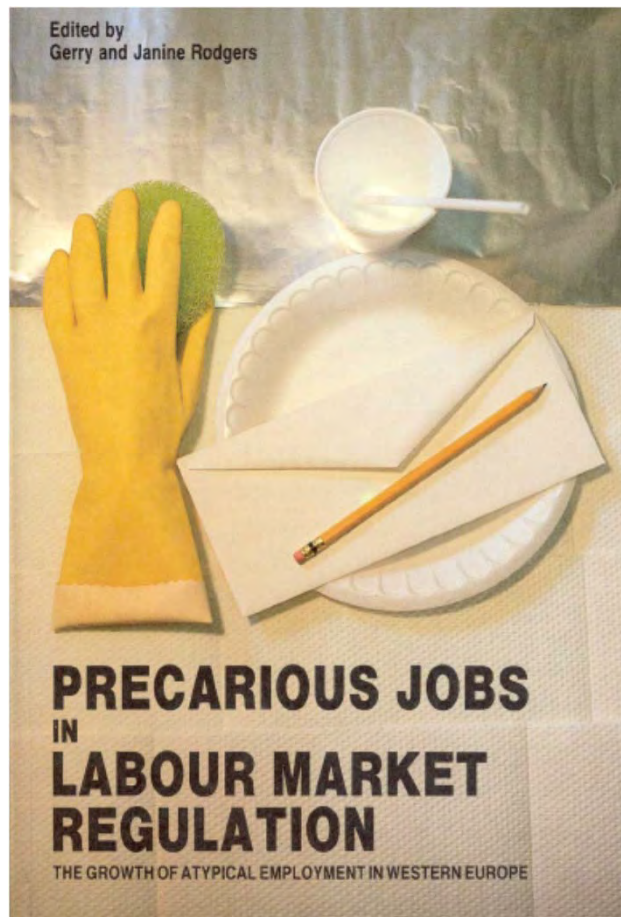


Source: adapted from Nanteuil 2000 by Amable, M. 2006.



Concept development

Dimensions of precarious employment, literature review. Amable et al, 2001.



Edited by Gerry and Janine Rodgers
International Institute for Labour Studies
Free University of Brussels 1989

Tabla 4. Dimensiones de precariedad y situaciones del mercado de trabajo asociadas

Dimensiones de precariedad	Situaciones asociadas
Inseguridad en el empleo	Empleos temporales/facilidades para el despido Trabajo clandestino, falsos autónomos Empleos fijos pero frágiles
Insuficiencia/incertidumbre de los ingresos salariales	Subempleo y trabajo a tiempo parcial Discriminación salarial
Degradación/vulnerabilidad de la situación de trabajo	Discrecionalidad empresarial en la fijación de las condiciones de trabajo/flexibilización de las normas reguladoras
Protección social reducida	Restricciones de acceso/insuficiencia en las prestaciones por desempleo y jubilación

Source: Cano E. Precarización laboral, flexibilidad y desregulación. Valencia, 1998.

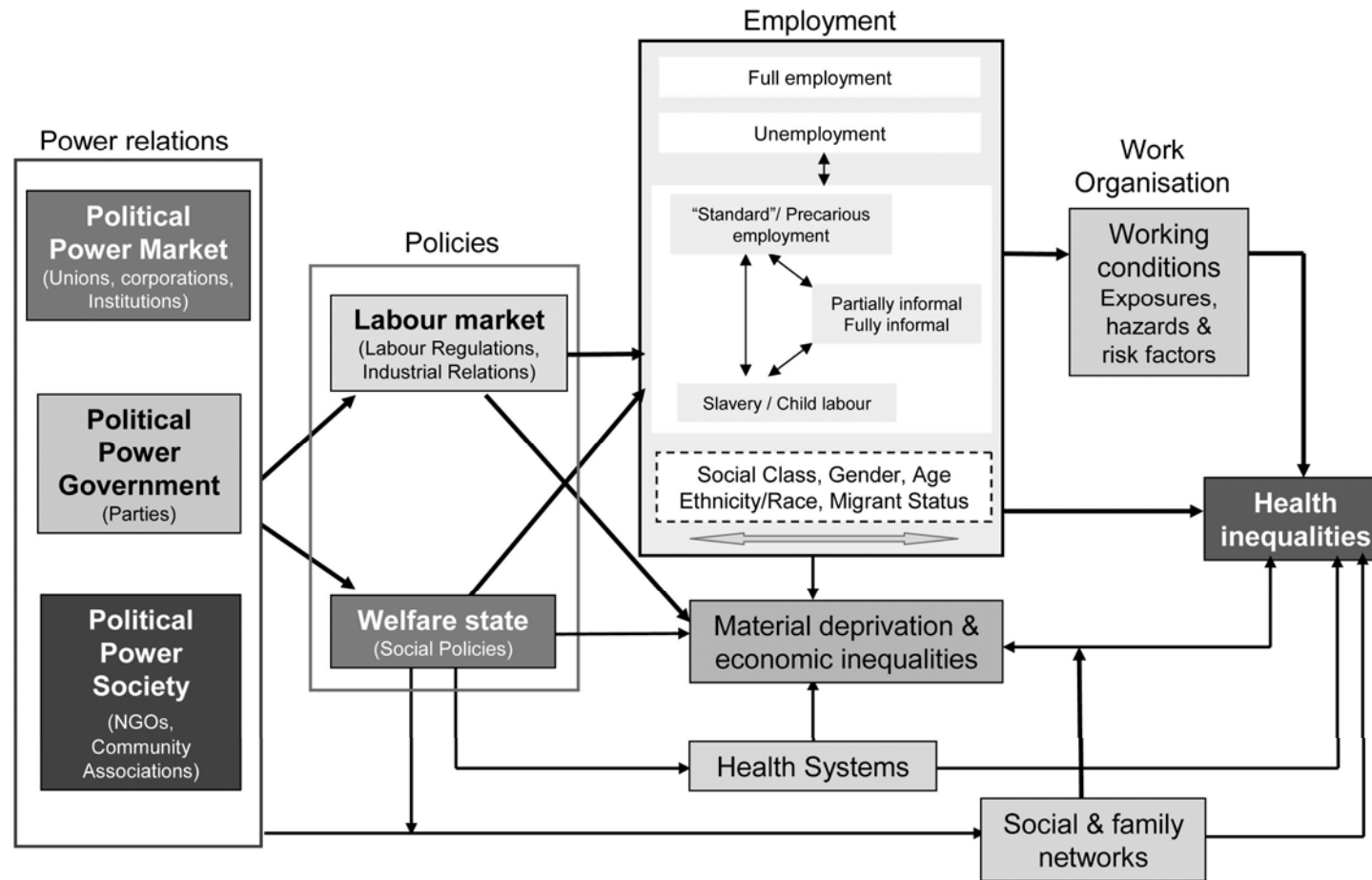
Concept development

Experiences of precariousness, focus groups of workers in Spain. Amable, 2001

- «Es que nos callamos por el miedo que tenemos»; «psicológicamente me mata, te provoca una impotencia muy grande»; «te motivan con el miedo a ser despedida»; «tengo miedo que me despidan».
- Mujeres jóvenes: «todo es proporcional al tiempo que trabajas»; «para el paro te contabilizan las horas trabajadas, tuve que trabajar 4 años para tener 4 meses de paro»; «te enteras de tus vacaciones el día antes de iniciarlas».
- Varones jóvenes: «no puedes exigir nada si estás con un contrato que cuando quieren te pueden echar»; «nadie dice nada, siempre hay alguien que dice que lo diga él así yo no me mojo» ; «tu siempre estás debajo de todo, y te hacen sentir siempre igual».

Concept development

Conceptual model on employment relations and health inequalities (causal pathways)



Source: Benach, Muntaner et al. (2010) *Empleo, trabajo y salud: una visión global*. Icaria editorial, Barcelona, España.

Development of measurement scale

2. Development of measurement scale
 - Item identification and formulation
 - Cognitive debriefing
 - Pilot study with temporary workers
 - Selection of final items

Employment precariousness scale (EPRES). Characteristics:

Focus:

- Employment relations and conditions
- Waged and salaried workers with a contract

Purpose:

- Epidemiologic and public health research

Adaptable:

- for other populations, other national contexts or other purposes.

Development of measurement scale

Employment Precariousness Scale (EPRES) (Amable & cols, 2006)

EMPLOYMENT PRECARIOUSNESS SCALE (EPRES)[1]

Subscale / Items	Response scales
TEMPORARINESS	
1- The duration of your contract is	(0) Permanent contract (1) 1 year or more (2) Temporary, non-fixed term (3) Between 6 and less than 12 months (4) Less than 6 months
2- During the last twelve months, how long did you work under temporary contracts?	(0) Did not work under temporary contracts (1) For less than 2 months (2) Between 2 and 3 months (3) Between 3 and 6 months (4) Between 6 and 12 months
DISEMPOWERMENT	
How did you settle the following employment conditions?	
3- Workplace schedule	(0) By collective agreement
4- Weekly working hours	(1) By the employer
5- Wages or salary	(2) Doesn't know
VULNERABILITY	
In relation to the way you are treated at work, can you tell me whether...	
6- You feel afraid to demand better working conditions	(4) Always
7- You feel defenceless towards unfair treatment by your superiors	(3) Many times
8- You feel afraid of being fired for not doing what you are asked to do	(2) Sometimes
9- You are treated in a discriminatory and unjust manner	(1) Only one time
10- You are treated in a authoritarian and violent manner	(0) Never
11- You are made to feel you can be easily replaced	
WAGES	
12- Does your current salary allow you to cover your basic needs?	(3) Not at all (2) A little (1) A good amount (0) Very much
13- Does your current salary allow you to cover unexpected expenses?	(4) Never (3) Maybe once (2) Sometimes (1) Many times (0) Always
14- How much is your take home (net) monthly wage or salary?	(4) 451 € or less (3) 452 € to 751€ (2) 752 € to 1503 € (1) 1504 € to 2405 € (0) More than 2406 €
RIGHTS	
Of the following benefits, which do you have a right to...	
15- Paid vacations	(0) Yes
16- Pension	(1) No
17- Severance pay	(2) Doesn't know
18- Maternity / paternity leave	
19- Day off for family or personal reasons	
20- Weekly holidays	
21- Unemployment benefit / compensation	
EXERCISE RIGHTS	
Indicate how often you can exercise the following rights without obstacles.	
22- Weekly holidays	(4) Never
23- Take sick leave	(3) Only one time
24- Go to the doctor	(2) Sometimes
25- Take vacations	(1) Many times
26- Request a day off for family or personal reasons when needed	(0) Always

Subscale scores are computed as simple averages and transformed into a 0-4 scale. The overall EPRES score is the arithmetic mean of the six subscale scores.

EMPLOYMENT PRECARIOUSNESS SCALE (EPRES)[1]

Subscale / Items	Response scales
TEMPORARINESS	
1- The duration of your contract is	(0) Permanent contract (1) 1 year or more (2) Temporary, non-fixed term (3) Between 6 and less than 12 months (4) Less than 6 months
2- During the last twelve months, how long did you work under temporary contracts?	(0) Did not work under temporary contracts (1) For less than 2 months (2) Between 2 and 3 months (3) Between 3 and 6 months (4) Between 6 and 12 months
DISEMPOWERMENT	
How did you settle the following employment conditions?	
3- Workplace schedule 4- Weekly working hours 5- Wages or salary	(0) By collective agreement (1) By the employer (2) Doesn't know
VULNERABILITY	
In relation to the way you are treated at work, can you tell me whether...	
6- You feel afraid to demand better working conditions 7- You feel defenceless towards unfair treatment by your superiors 8- You feel afraid of being fired for not doing what your are asked to do 9- You are treated in a discriminatory and unjust manner 10- You are treated in a authoritarian and violent manner 11- You are made to feel you can be easily replaced	(4) Always (3) Many times (2) Sometimes (1) Only one time (0) Never

WAGES

- 12- Does your current salary allow you to cover your basic needs?
- (3) Not at all
(2) A little
(1) A good amount
(0) Very much
- 13- Does your current salary allow you to cover unexpected expenses?
- (4) Never
(3) Maybe once
(2) Sometimes
(1) Many times
(0) Always
- 14- How much is your take home (net) monthly wage or salary?
- (4) 451 € or less
(3) 452 € to 751€
(2) 752 € to 1503 €
(1) 1504 € to 2405 €
(0) More than 2406 €

RIGHTS

Of the following benefits, which do you have a right to...

- 15- Paid vacations
16- Pension
17- Severance pay
18- Maternity / paternity leave
19- Day off for family or personal reasons
20- Weekly holidays
21- Unemployment benefit / compensation
- (0) Yes
(1) No
(2) Doesn't know

EXERCISE RIGHTS

Indicate how often you can exercise the following rights without obstacles.

- 22- Weekly holidays
23- Take sick leave
24- Go to the doctor
25- Take vacations
26- Request a day off for family or personal reasons when needed
- (4) Never
(3) Only one time
(2) Sometimes
(1) Many times
(0) Always

Subscale scores are computed as simple averages and transformed into a 0-4 scale. The overall EPRES score is the arithmetic mean of the six subscale scores.

2. Validation study

- Item level statistics
- Scale level statistics
- Construct validity

Validation study

Study population


Survey data:

- Psychosocial Work Environment Survey 2004-05 (ISTAS-Barcelona)

Sample:

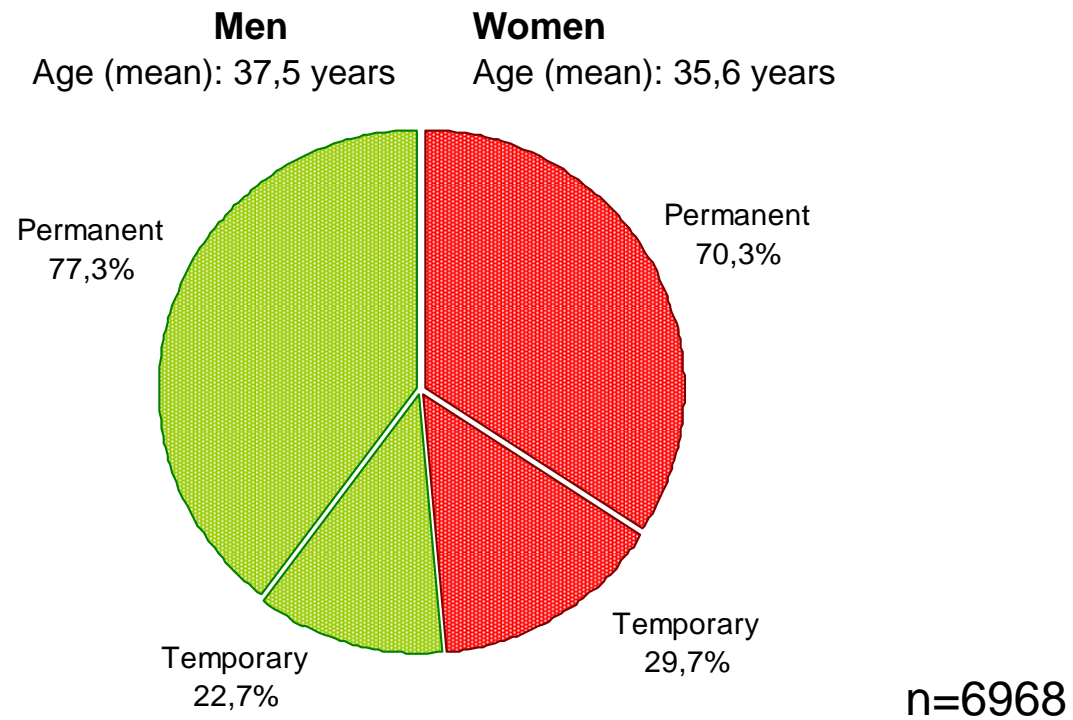
- Population-based, nationally representative, current workers (15-65 years).
- Response rate 60%

Study sample

- Waged and salaried workers with a contract (n = 6 948)
 - Largest groups: wholesale, manufacturing, hotels & restaurants
- 

Validation study

Study sample



Validation study

Item level statistics: Distribution and response rates

Table III.1 Item descriptive statistics

Item	Missing (%)	Mean	SD	Response value frequency					Total
				0	1	2	3	4	
Scale: Temporariness									
Duration of current contract	0.1	0.64	1.18	5147	313	655	567	276	6958
Months under temporary contracts	0.4	0.85	1.53	5138	173	187	388	1052	6938
Scale: Disempowerment									
Settle workplace schedule	0.1	0.76	0.57	2184	4288	491			6963
Settle weekly working hours	0.1	0.76	0.58	2240	4178	545			6963
Settle wages or salary	0.1	0.75	0.58	2245	4221	496			6962
Scale: Vulnerability									
Afraid to demand better working conditions	0.1	0.64	1.02	4546	1000	913	357	144	6960
Defenceless towards unfair treatment	0.1	0.49	0.94	5060	894	594	299	113	6960
Afraid of being fired for not doing...	0.2	0.57	1.00	4809	928	742	330	147	6956
Treated in a discriminatory and unjust manner	0.1	0.31	0.74	5652	669	426	180	32	6959
Treated in a authoritarian and violent manner	0.2	0.26	0.69	5887	546	345	136	38	6952
Made to feel easily replaceable	0.1	0.48	0.93	5123	896	548	245	147	6968

Source: Vives A. A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce. Doctoral dissertation, Universitat Pimpeu Fabra, Barcelona. 2010.

Validation study

Factorial structure:
item placement

Table 4 Exploratory factor analysis of the Employment Precariousness Scale (EPRES) (Spain, 2004–2005)

	Factor 1 VU	Factor 2 ER	Factor 3 RI	Factor 4 DE	Factor 5 WA	Factor 6 TE
Temporariness (TE)						
Duration of current contract			0.24		0.14	0.79
Months under temporary contracts previous year			0.21		0.10	0.80
Disempowerment (DE)						
How did you settle your workplace schedule?			0.11	0.91		
How did you settle your weekly working hours?				0.92		
How did you settle your wages or salary?			0.10	0.90		
Vulnerability (VU)						
Afraid to demand better working conditions	0.73	0.15	0.10			
Defenceless towards unfair treatment	0.84	0.15				
Afraid of being fired for not doing...	0.73	0.12	0.10			
Treated in a discriminatory and unjust manner	0.83	0.13				
Treated in an authoritarian and violent manner	0.77	0.16				
Made to feel easily replaceable	0.74	0.16				0.10
Wages (WA)						
Cover basic needs?		0.10			0.82	
Allow for unexpected expenses?					0.78	
Monthly take home (net) wage or salary			0.17	0.11	0.39	0.19
Rights (RI)						
Paid holiday	0.13	0.12	0.57			0.14
Pension			0.58			0.12
Severance pay	0.10		0.71			0.12
Maternity / paternity leave		0.12	0.63			
Day off for family or personal reasons		0.21	0.53	0.12	0.12	
Weekly holidays		0.25	0.46	0.11		
Unemployment benefit / compensation			0.66			
Exercise rights (ER)						
Weekly holidays		0.60	0.10			
Sick leave	0.25	0.77	0.13			
Go to the doctor	0.24	0.79	0.13			
Holiday	0.15	0.69	0.19			0.11
Day off for family or personal reasons	0.15	0.82	0.15			

Cumulative variance explained by the EPRES model: 66.7%.

Loadings <0.1 are not presented. The loading weights of the factor corresponding to the domain assigned by the EPRES developers are boxed.

Source: Vives et al. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010;67:548e555.

Validation study

Scale level statistics: Distribution, reliability, internal consistency.

Table 3 Distribution and reliability of EPRES in a population sample of permanent (n=5147) and temporary (n=1821) workers (Spain, 2004–2005)

	Mean		SD		Missing items* (%)		Observed range		Floor† (%)		Ceiling† (%)		Cronbach's α
	P	T	P	T	P	T	P	T	P	T	P	T	
Temporariness	0.1	2.7	0.3	0.8	0.4	0.9	0–2	0.5–4	95.3	0	0	5.2	0.82
Disempowerment	1.4	1.7	1.1	1.1	0.1	0.1	0–4	0–4	29.3	22.1	5.1	9.3	0.95
Vulnerability	0.4	0.7	0.7	0.8	0.3	0.3	0–4	0–4	58.4	40.2	0.02	0.6	0.90
Wages	2.1	2.4	0.7	0.7	10.5	7.3	0–4	0.4–4	0.5	0	0.3	1.9	0.70
Rights	0.5	1.1	0.7	1.0	0.3	0.2	0–4	0–4	47.1	21.1	0.5	3.6	0.80
Exercise rights	0.8	1.3	1.0	1.1	0.9	2.1	0–4	0–4	40.3	25.4	1.2	2.4	0.87
EPRES score	0.9	1.7	0.4	0.5	12.2	10.5	0–2.7	0.3–3.5	0.1	0	0	0	0.86

EPRES, the Employment Precariousness Scale; P, permanent; T, temporary.

*Proportion of participants with any item missing on the scale.

†Proportion of participants with lowest (floor) and highest (ceiling) EPRES scores.

Source: Vives et al. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010;67:548e555.

Validation study

Construct validity: validation hypothesis

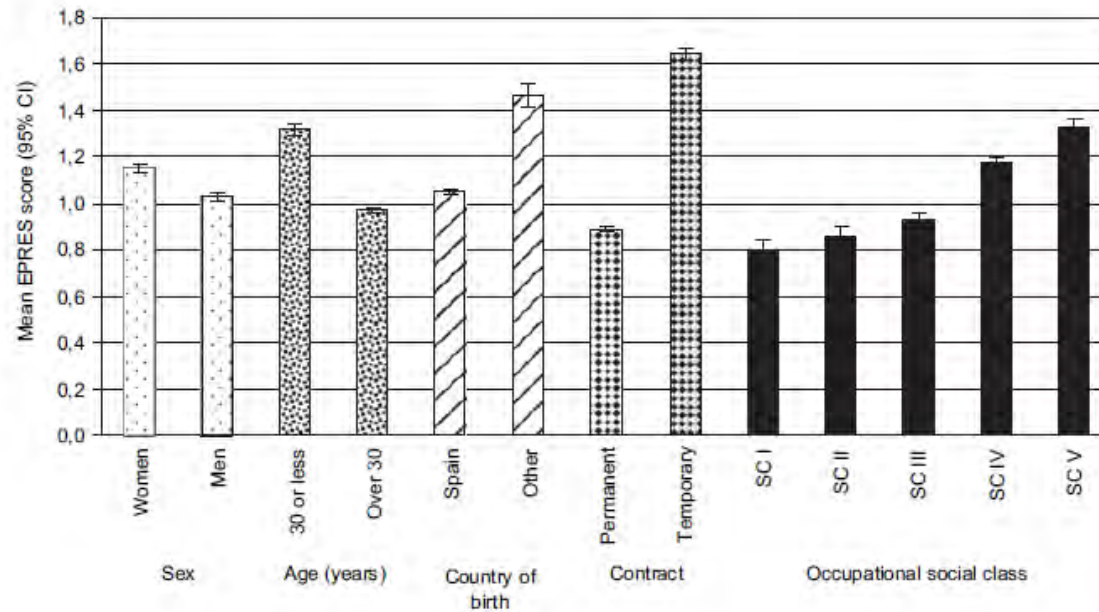
Related constructs	Construct validity hypotheses		
	Direction of correlation	Gradient of correlations	Correlation strongest with
General health	Negative	+	
Mental health	Negative	++	Vulnerability, exercise rights
Job satisfaction	Negative	++	Vulnerability, exercise rights
Quantitative psychological demands	Positive	+	Vulnerability, exercise rights
Influence at work	Negative	+	
Possibilities for development	Negative	+	
Social support	Negative	++	Vulnerability, exercise rights
Insecurity at work	Positive	+	Vulnerability, exercise rights
Employment insecurity	Positive	++	Vulnerability, exercise rights, temporariness

Source: Vives et al. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010;67:548e555.

Validation study

Construct validity: Known groups.

Figure 1 Mean EPRES scores (95% CI) in waged and salaried workers according to sex, age, country of birth, type of contract and occupational social class (Spain, 2004–2005).



Source: Vives et al. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010;67:548e555.

Validation study

Construct validity: multi-item multi-methods matrix

Table 5 Spearman correlation coefficients: multitrait-multimethod matrix of the EPRES and the SF-36 and COPSQ ISTAS21 dimensions in waged and salaried workers (Spain, 2004–2005)

	Temporariness	Disempowerment	Vulnerability	Wages	Rights	Exercise rights	EPRES
Temporariness	(0.82)						
Disempowerment	0.106**	(0.95)					
Vulnerability	0.209**	0.103**	(0.90)				
Wages	0.250**	0.128**	0.185**	(0.70)			
Rights	0.337**	0.167**	0.167**	0.217**	(0.80)		
Exercise rights	0.207**	0.123**	0.357**	0.150**	0.348**	(0.87)	
EPRES†	0.629**	0.513**	0.493**	0.497**	0.584**	0.630**	(0.86)
General health	-0.018	-0.030*	-0.271**	-0.029*	-0.005	-0.143**	-0.135**
Mental health	-0.079**	-0.076**	-0.343**	-0.108**	-0.025*	-0.178**	-0.227**
Job satisfaction	-0.178**	-0.131**	-0.316**	-0.220**	-0.183**	-0.249**	-0.348**
Quantitative psychological demands	0.015	0.064**	0.225**	-0.010	-0.010	0.146**	0.130**
Influence at work	-0.202**	-0.080**	-0.150**	-0.267**	-0.134**	-0.062**	-0.242**
Possibilities for development	-0.092**	-0.101**	-0.159**	-0.257**	-0.115**	-0.095**	-0.210**
Social support	-0.114**	-0.113**	-0.291**	-0.177**	-0.125**	-0.248**	-0.285**
Insecurity at work	0.052**	-0.047**	0.142**	0.002	0.118**	0.124**	0.097**
Employment insecurity	0.122**	-0.024*	0.143**	0.034**	0.137**	0.102**	0.135**

COPSQ ISTAS21, the Spanish version of the Copenhagen Psychosocial Questionnaire; EPRES, the Employment Precariousness Scale; SF-36, Short Form-36 Health Survey.

Scale internal consistency reliability (Cronbach's α coefficient) is presented in the diagonal.

*Correlation significant at $p=0.05$.

†EPRES score was obtained as the mean of the six subscales.

**Correlation significant at $p=0.01$.

Source: Vives et al. The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occup Environ Med* 2010;67:548e555.

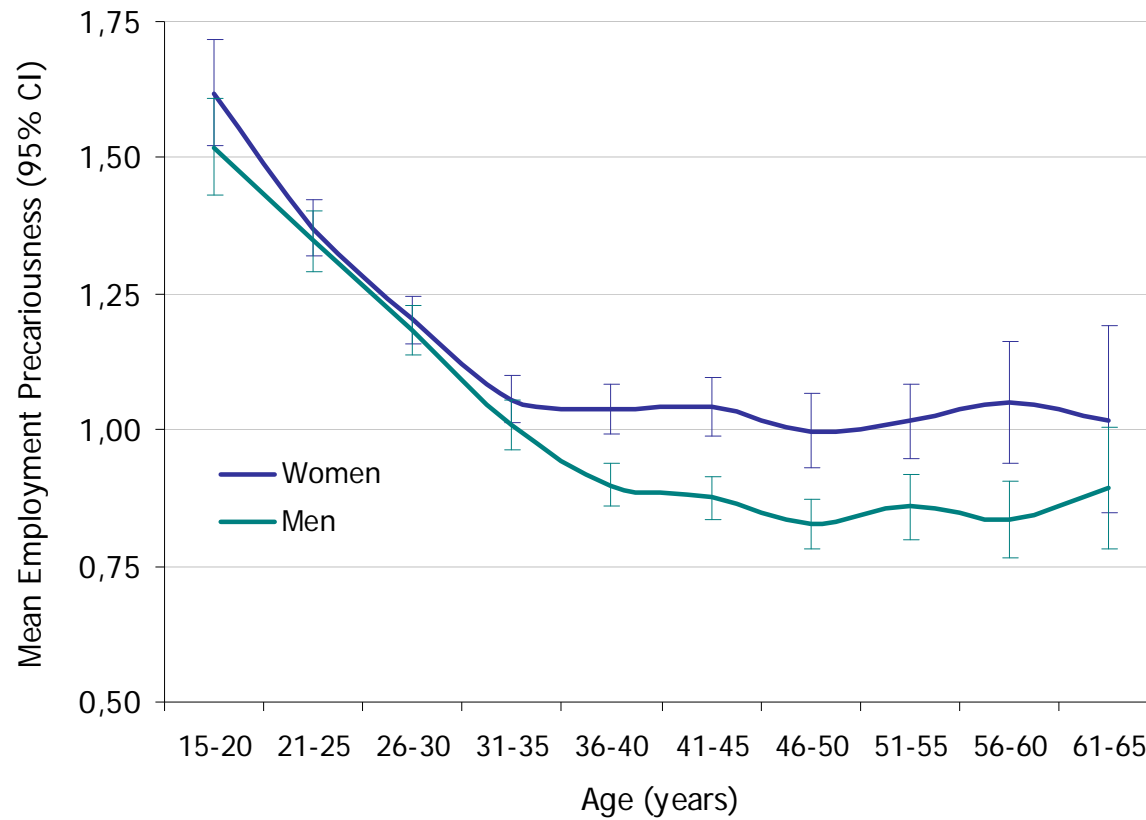
APPLICATIONS

1. Prevalence and distribution
2. Association with health
3. Other uses, current and future

APPLICATIONS: Prevalence and distribution

Prevalence and distribution

Mean employment precariousness according to sex and age



Source: Vives A. A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce. Doctoral dissertation, Universitat Pimpeu Fabra, Barcelona. 2010.

Management of the scale

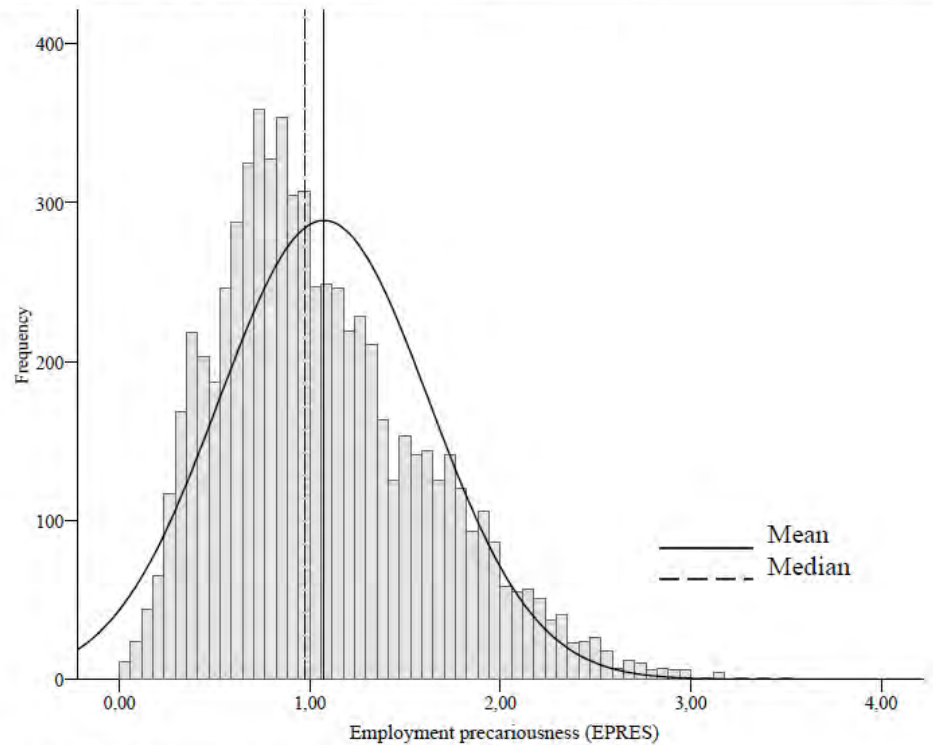
Subscales	Nº items	Subscale scores	Range
Temporariness	2	$(\sum \text{items} / 8) \times 4$	0 – 4
Disempowerment	3	$(\sum \text{items} / 6) \times 4$	0 – 4
Vulnerability	6	$(\sum \text{items} / 24) \times 4$	0 – 4
Wages	3	$(\sum \text{items} / 11) \times 4$	0 – 4
Rights	6	$(\sum \text{items} / 14) \times 4$	0 – 4
Excercise rights	5	$(\sum \text{items} / 20) \times 4$	0 – 4
Global score		$\sum \text{subscales} / 6$	0 – 4

Source: Vives A. A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce. Doctoral dissertation, Universitat Pimpeu Fabra, Barcelona. 2010.

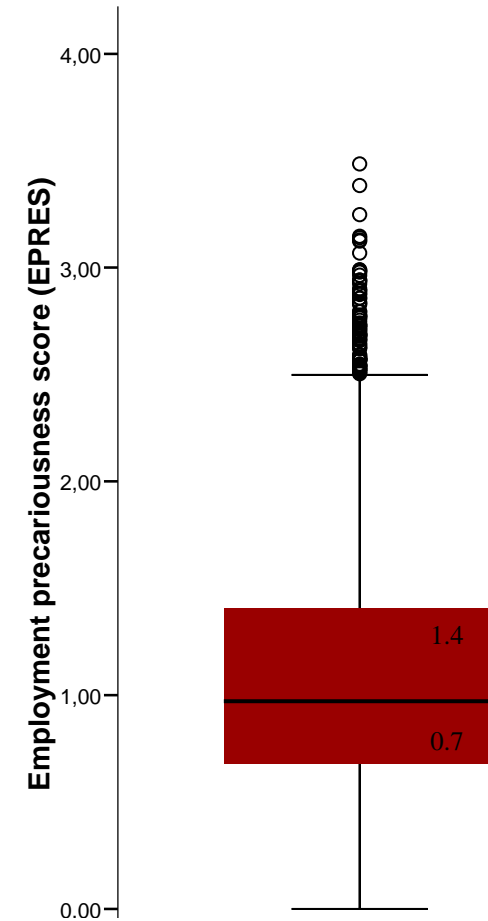
Prevalence and distribution

Distribution of the employment precariousness score (EPRES)

Figure 15 Distribution of employment precariousness in the sample. PWES survey, Spain, 2004-2005.



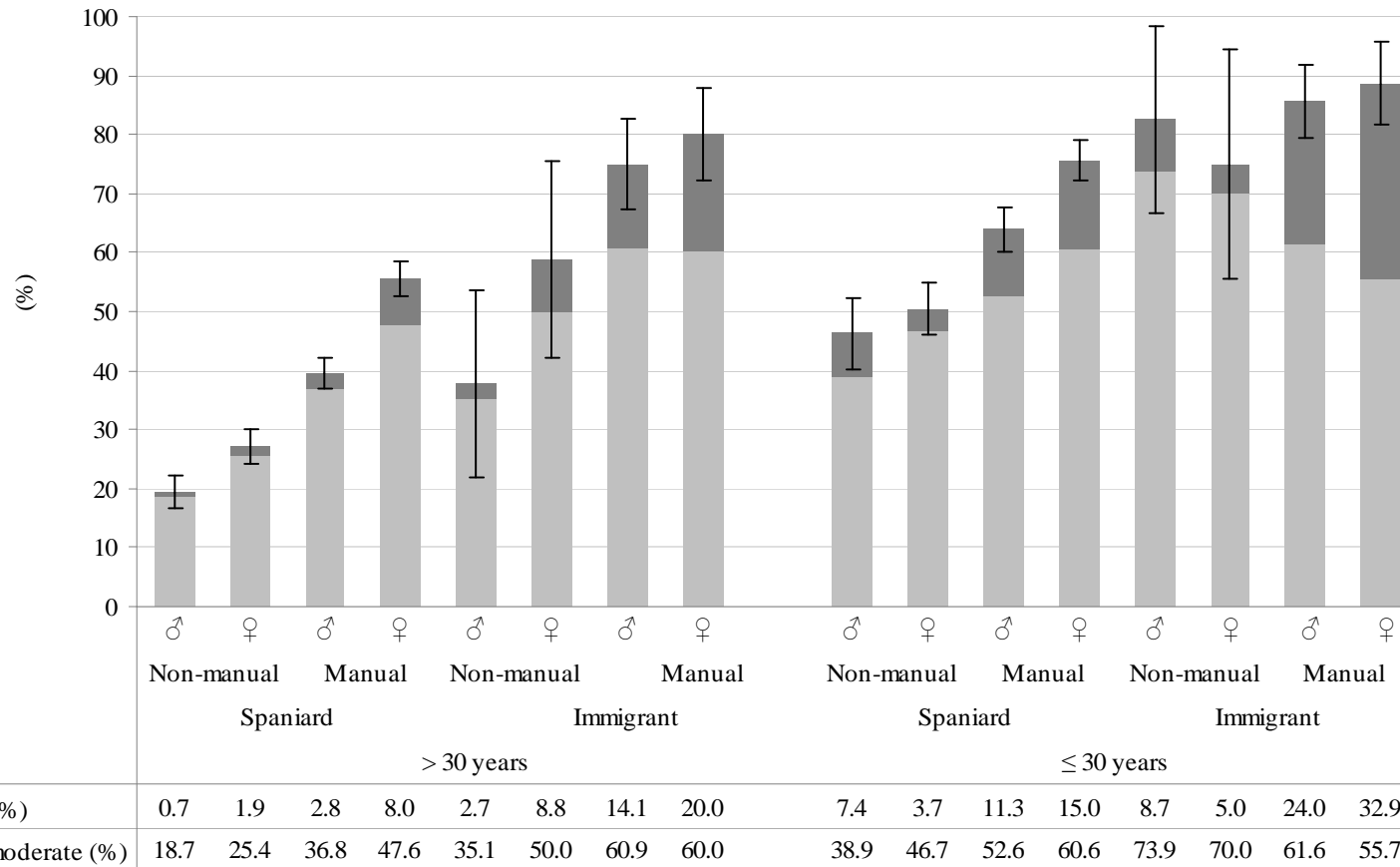
PWES: Psychosocial Work Environment Survey



Source: Vives A. A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce. Doctoral dissertation, Universitat Pimpeu Fabra, Barcelona. 2010.

Prevalence and distribution

Prevalence according to axes of inequality. Spain 2004-2005.

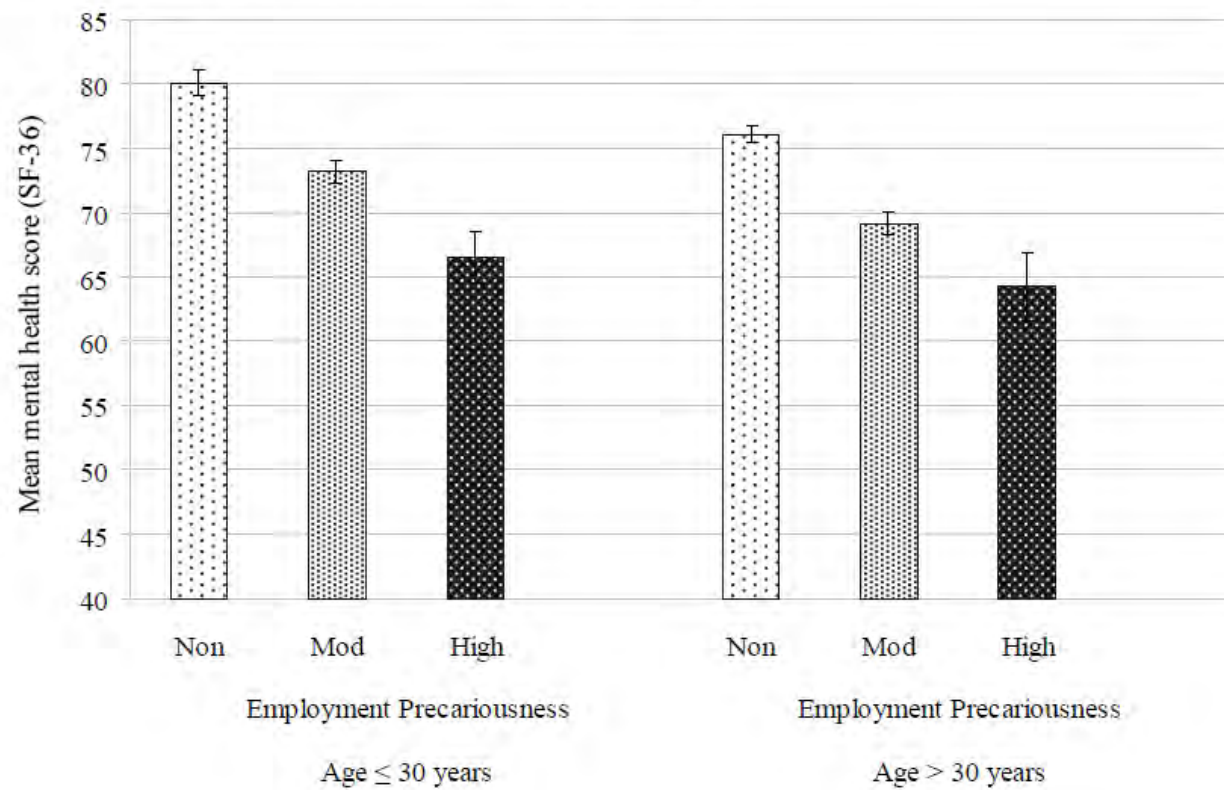


Source: Vives et al. Employment precariousness in Spain: Prevalence, social distribution, and population-attributable risk percent of poor mental health. *International Journal of Health Services* 2011; 41(4): 625-646.

APPLICATIONS: Association with health

Association with health

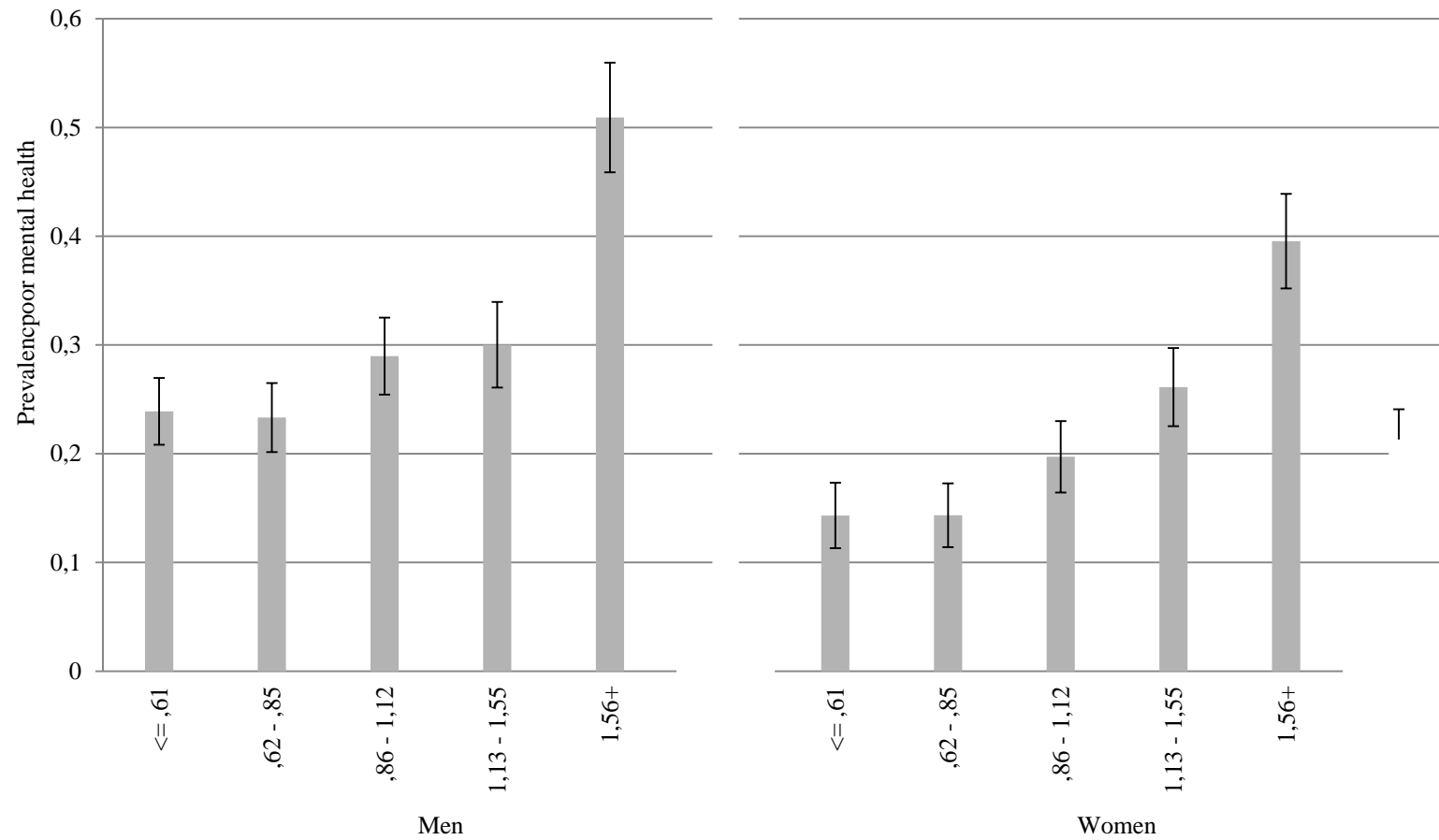
Figure II.2 Mean SF-36 mental health scores across levels of employment precariousness and age group.



Source: Vives A. A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce. Doctoral dissertation, Universitat Pimpeu Fabra, Barcelona. 2010.

Association with health

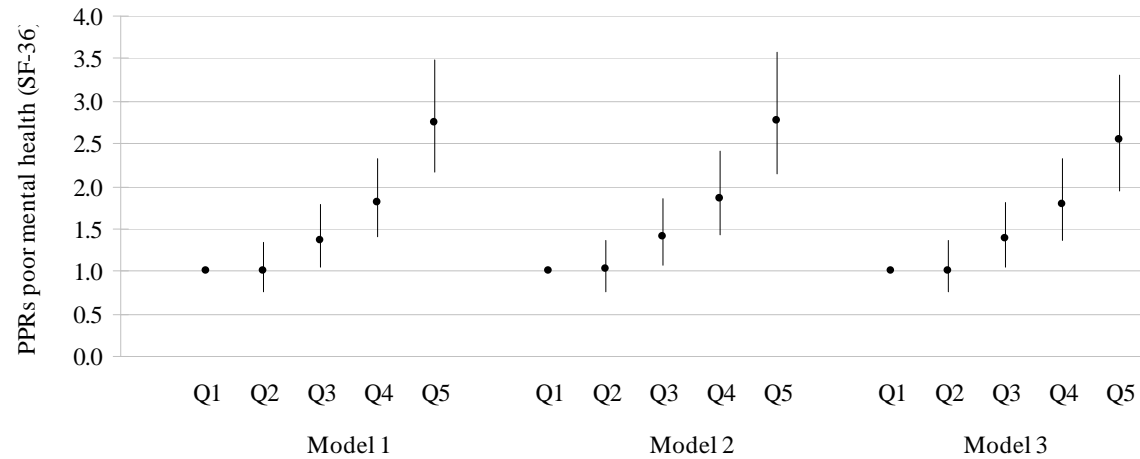
Prevalence of poor mental health (SF36) according to quintiles of EPRES score.



Fuente: Elaboración propia a partir de ERP-ISTAS 2004-2005

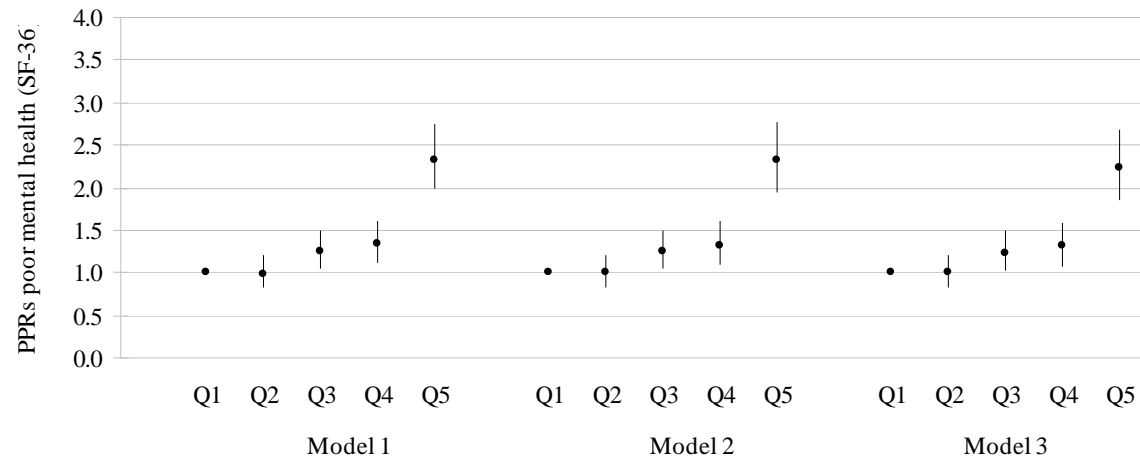
Association with health

Adjusted prevalence rate ratios of poor mental health according to EPRES score.



Women

Model 1: adjusted for age (continuous).
 Model 2: adjusted for age, immigrant status (yes / no), educational attainment (primary or less; secondary; trade school; university), and occupational social class (SC I + II; SC III; SC IV + V).
 Model 3: model 2 + unemployment previous year (yes / no).



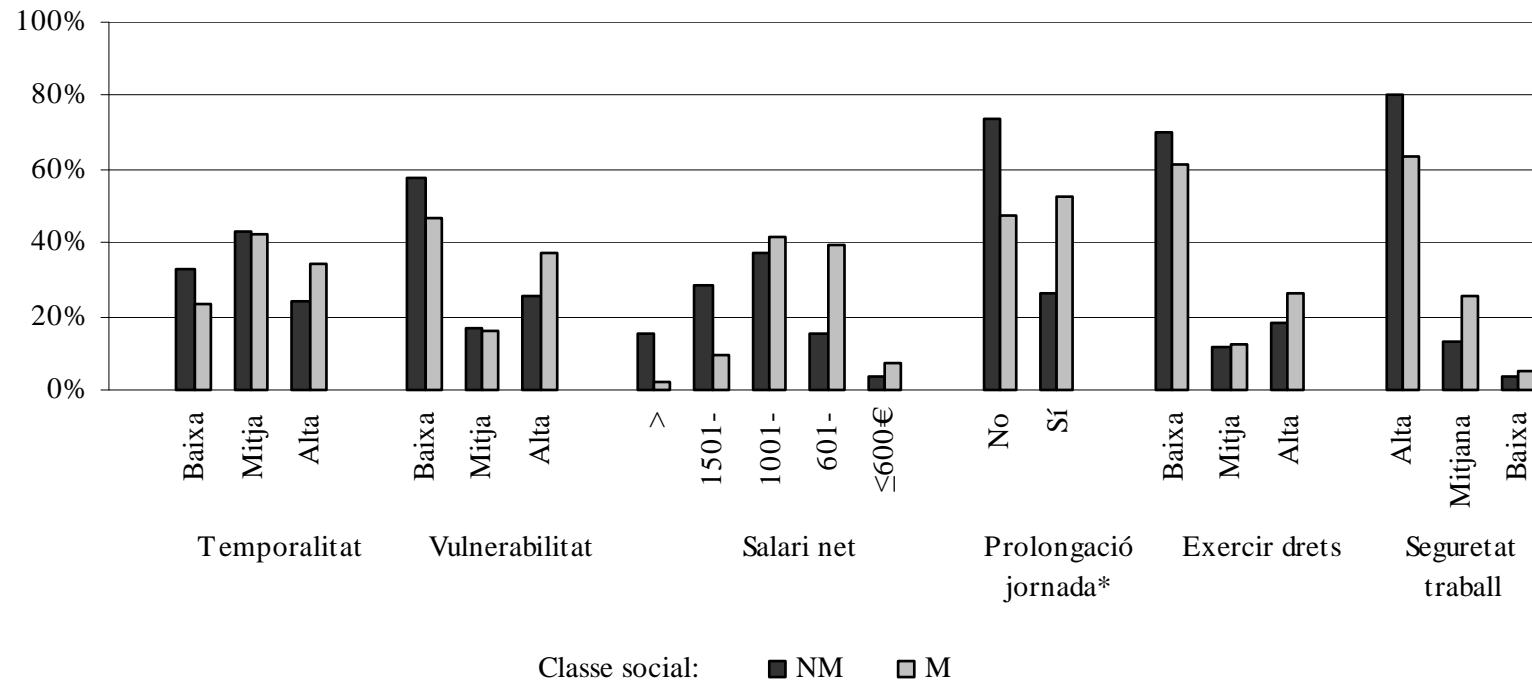
Men

Source: Vives A. A multidimensional approach to precarious employment: measurement, association with poor mental health and prevalence in the Spanish workforce. Doctoral dissertation, Universitat Pimpeu Fabra, Barcelona. 2010.

APPLICATIONS: New surveys

Catalonian working conditions survey 2010

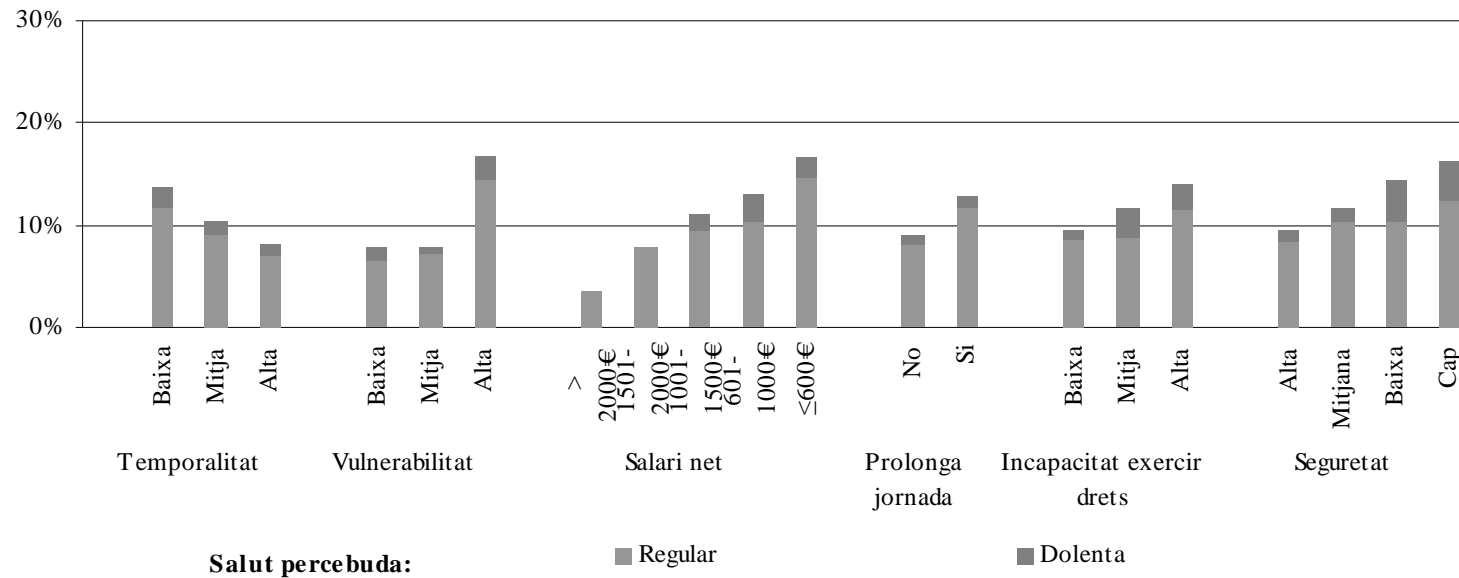
Distribution of indicators of employment precariousness. Catalonia, 2010.



Source: Prepared by the author based on data from the Catalonia Working Conditions Survey 2010.

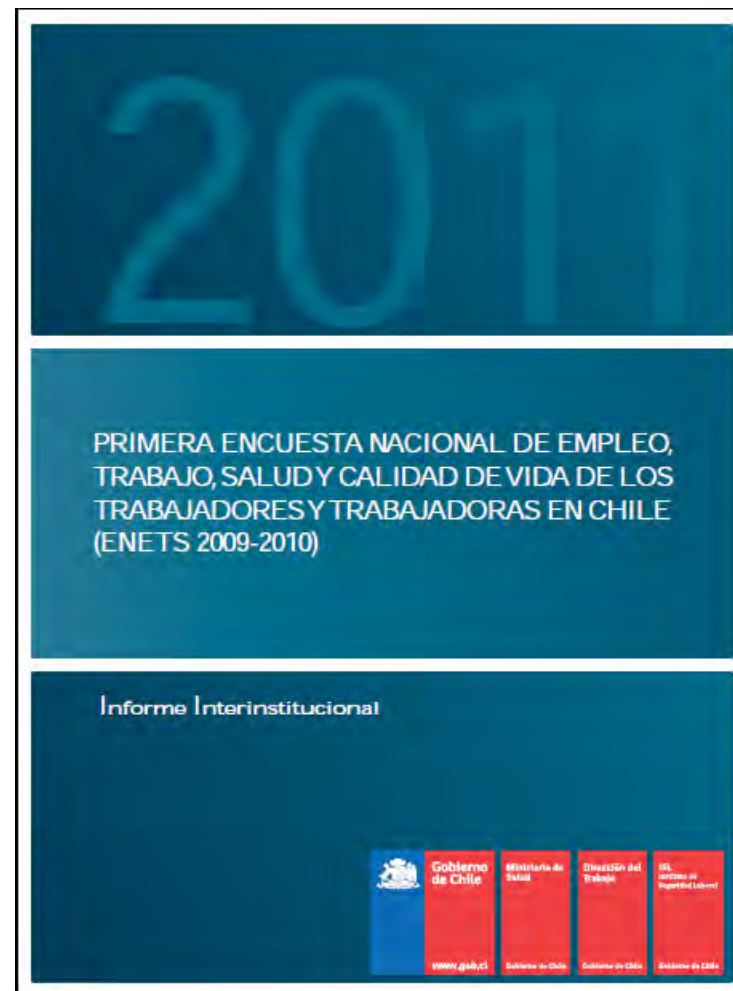
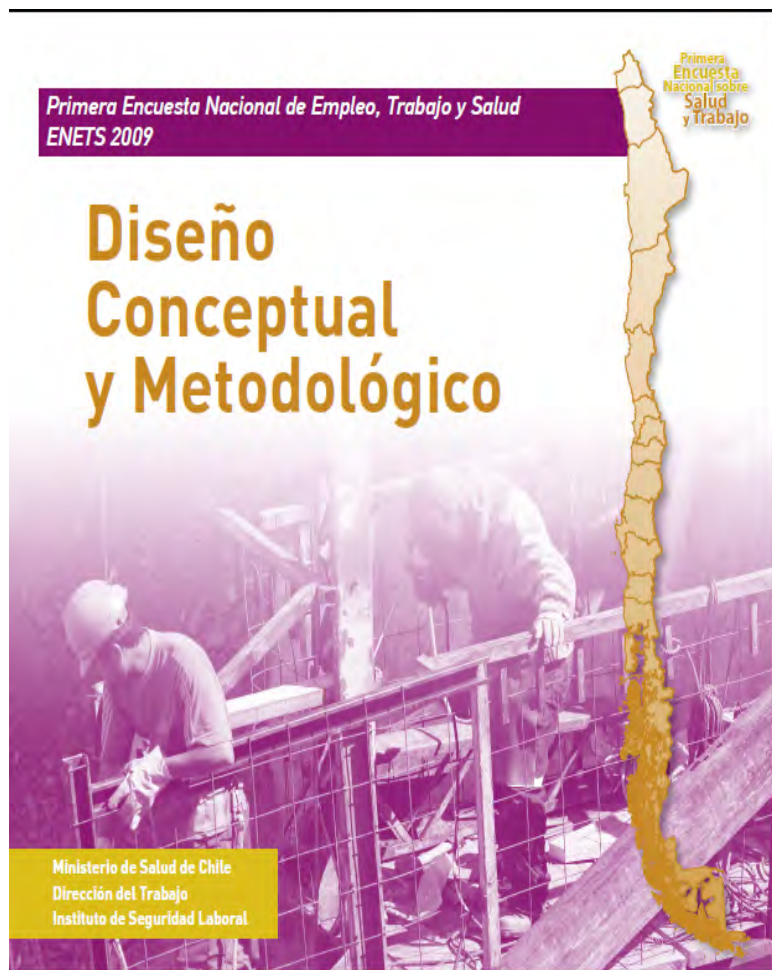
Catalonian working conditions survey 2010

Poor self-rated health according to indicators of precariousness. Catalonia, 2010.



Source: Prepared by the author based on data from the Catalonia Working Conditions Survey 2010.

Chile: Encuesta Nacional de Empleo, Trabajo y Salud (ENETS)



Chile: *Encuesta Nacional de Empleo, Trabajo y Salud* (ENETS)

Scale level statistics: Distribution and reliability

	Mean	SD	Missing items (%)	Observed range	Floor (%)	Ceiling (%)	Cronbach's alpha
Temporariness	0,641	0,664	21,4	0-3	19,6	0,2	0,732
Wages	1,643	0,797	2,5	0-3	3,7	6,7	0,754
Rights	0,334	0,417	2,5	0-2	50,3	0,5	0,421
Exercise rights	0,929	0,886	23,8	0-3	25,0	4,1	0,849
Vulnerability	0,582	0,745	1,2	0-3	39,0	1,3	0,882
Disempowerment	1,661	0,819	14,4	0-3	9,2	3,2	0,940
Total EPRES	0,955	0,418	50,8	0-2,5	0,2	0,0	0,860

Source: Prepared by the author based on data from ENETS, 2010.

Other uses, current and future



Other uses, current & future

Questionnaire improvements and expansion:

- ERP 2010 revised version
- Adaptation and validation in other European countries (Greece, Turkey, ...)
- Expansion to other relevant dimensions (training, career, working hours)

Monitoring, international comparisons

- Inclusion in regular data sources (Catalonia...)
- Use of proxy indicators in regular data sources (EWCS)
- Development of reduced version

Aim at informing policies, stakeholders, and further research



Thank you very much.