Instituto
Universitario de
Desarrollo Social
y Paz

Universidad de Alicante

Labor status and involuntary employment: family ties and women's part-time work in Spain

Alfonsa Denia y Mª Dolores Guilló

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Motivation

❑Is PT employment really a mechanism to increase participation in Spain (women)? Work satisfaction?

❑What are the determinants of the employment patterns of Spanish couples?

Objetives

1. To explore the extent of PT as a *voluntary* option.
   What are the deteminants of PT supply?

2. To analyze the importance of family characteristics relative to market variables.

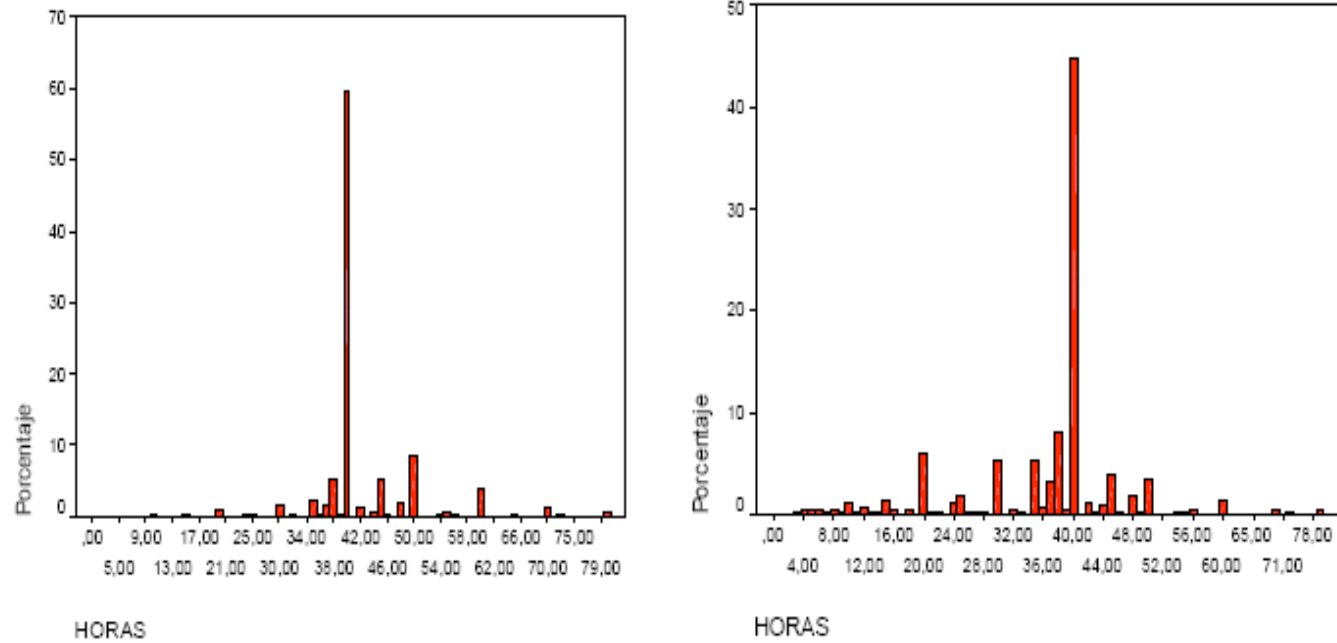   Is there a preference for the traditional family?

Some Facts

Figure 1: Male and Female distribution hours

Objetive 1:
Determinants of PT labor supply

Methodological questions when using EPA data – labor status definitions.

❑ PT versus FT (including unemployed)

❑ 'voluntary' versus 'involuntary'

PT employed 2000 (similar for 2008)

Table 2: Reasons of having part-time employment, EPA 2000, percentage.

	Men		Women	
	%Row	%Col.	%Row	%Col.
Education, training	47.4	13.7	52.6	4.2
Illness	60.0	3.0	40.0	0.6
Familly obligations	1.2	0.6	98.8	13.7
Full-time not found	22.0	22.5	78.0	21.9
Full-time not wanted	16.1	4.1	83.9	5.9
Type of activity	20.9	37.0	79.1	38.2
Other reasons	26.3	18.1	73.7	13.9
Unknown reason	13.1	0.6	86.9	1.7

Unemployed 2000 (similar for 2008)

Table 3: Workweek types supplied by the unemployed, EPA 2000, percentage.

	5,018 Men		7,090 Women	
	%Row	%Col.	%Row	%Col.
Full-time only	57.2	16.5	42.8	8.7
Full-time, part-time	39.6	28.7	60.4	30.9
Part-time, full-time	13.8	0.8	86.2	3.6
Part-time only	13.8	1.2	86.2	5.1
Any type	42.0	52.8	58.0	51.6

Objetive 2:
Gender roles important for PT supply?
Preference for the traditional family?

❑ No information in EPA data, only …
  Marital status? Children?

❑ Other data sources:
  World Value Surveys,
  Time Use Survey

Álvarez and Miles, Journal of Population Economics 2003:

Data: Work Situation and Time Use Survey 1991, Spain

They analyze the importance of traditional gender attitudes.

Find that the unequal division of housework between men and women is mainly explained by specific gender effects and not by the observable characteristics of individuals.

Theory Perspectives

Fact: women work less hours in the market than men.

1. Comparative advantage of women in household work.

2. Different power negotation distribution home duties.

3. Identity issues (gender) in decision making, social norms, ...

The theoretical model:
the labor supply of the household

❑ The hosuehold consists of two adults with decision power.

❑ Each adult obtains utility from 'household' consumption of two goods, a market good and a home good. Do not value leisure.

❑ **Agents have preferences about the division of labor between market and non-market activities.**

The utility of an adult (non-dependent)

$$U_j = u\left(c, z\right) + s_j \cdot \left(l_m - l_f\right)$$

$$s_j \in \left[0, 1\right], \qquad j = m, f$$

s_j : social norm concern of agent j

$l_j \in \left[0, 1\right]$: market time of agent j

Home production:

$$z = A \cdot \left[k + b \left(2 - l_m - l_f \right) \right]$$

$2 - l_m - l_f$: total home time

k : market good

Budget constraint:

$$c + k = a + w_m l_m + w_f l_f$$

Collective decision unit

$$U = \mu U_m + (1 - \mu)U_f$$

$$\mu \in [0,1]$$

μ: relative man's power decision, given…

(non-increasing in woman's labor income)

The household labor supply

Preference for the social tradition

❑The household always allocates a positive amount of the man's time to the market, BUT positive amount of the woman's time if her wage is above **b** (home productivity).

The woman's labor supply

S_μ^0

NW

$\left(w_f - b\right)u_c$

$S_\mu = \mu s_m + \left(1 - \mu\right)s_f$

PT

FT

S_μ^1

0

1

l_f
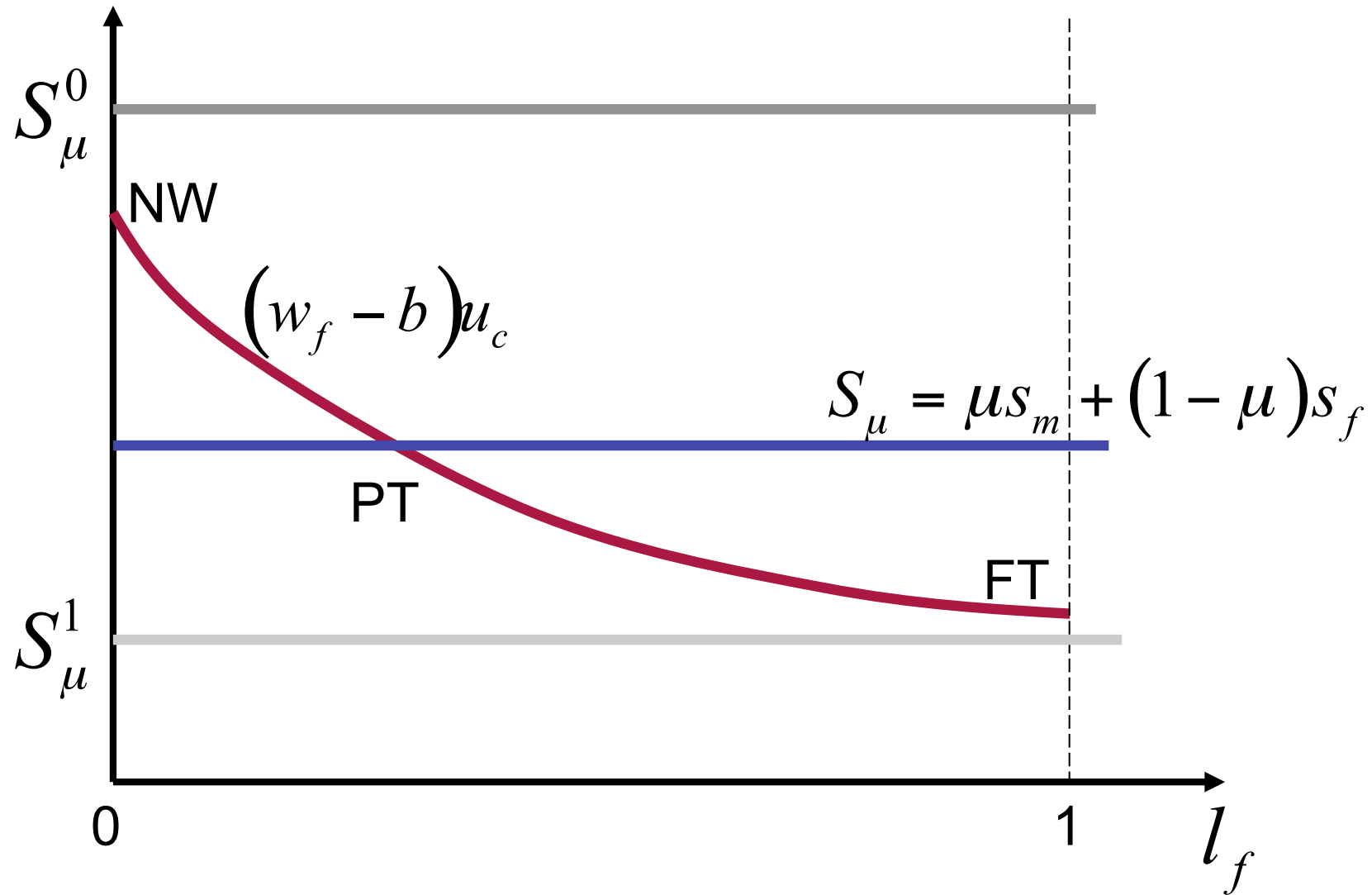
NW (no work), PT (work PT), FT (work FT)

PT vs FT wages

❑ Model assumption: hourly PT wage is the same as hourly wage FT.

❑ Fact, there exists a high **PT penalty for women**, not for men. Manning and Petrongolo (2004), O'Dorchai, Plasman and Rycx (2007), Pagán-Rodríguez (2007).

Preferences on labor status and type of workweek

Proposition 1:

❑ If PT is optimal, then it can be that the household prefers FT to NW or NW to FT.

❑ If FT is optimal, then the household prefers PT to NW, NW never preferred to PT.

Data: If FT is the first option, NW can be preferred to PT.

The model can generate this situation if we assume that there is a wage penalty associated to PT.

Tradition and the determination of μ

Interpretation of the household equilibrium as the stationary solution of an itterative process (Basu, The Economic Journal 2006):

❑ Initial value of μ given, the household decides the labor supply.

❑ The labor status determines the value of μ next period.

Proposition 2:

The PT solution is stable only if the woman is more traditional than the man.

DATA- Our definitions

❑ Unemployment is usually involuntary. Including the unemployed in the category NW does not reflect the natural ordering of preferences.

❑ Classify the unemployed according to the type of workweek they are searching for.

❑ PT can be involuntary. Explore the implications of different definitions for voluntary and involuntary PT employment (two criteria: reasons and hours).

EPA-EUROSTAT:

subjective PT, Involuntary PT = 'FT not found'

PT worker vs FT worker

We assume that:

❏ **PT worker** =
voluntary PT employed or unemployed searching for a PT job (first option).

❏ **FT** worker = FT employed or involuntary PT employed or unemployed searching for a FT job (first option).

Voluntary PT – Involuntary PT
The reasons criterium

	Voluntary	Involuntary
Unambiguous	Not want FT	Have not found FT
Ambiguous	Education/training	
(hours criterium)	Illness	
	Care of children/elderly	
	Other family/personal obligations	
	Type of activity (only 2000)	
	Other reasons	
	Do not know	

Example labor status ordering
(only reasons criterium)

❑ **NW** = inactive

❑ **volPT** = PT (no want FT, edu-training, illness, caring, other obligations) + unemployed searching PT (PT, but accept FT)

❑ **volFT** = FT + invPT(rest of reasons)+ unemployed searching FT

The statistical analysis

❑Individual characteristics

❑Family characteristics

❑Market variables (only for employed)
  No income variables in EPA.

Women (cohabiting, head or spouse), Ordered Probit		
	2000	2008
education2	0.140*	0.203*
education3	0.548*	0.546*
education4	1.204*	1.144*
married	-0.277*	-0.316*
Husband empl.	0.069*	0.245*
Husband unemp	0.245*	0.522*
children1	-0.455*	-0.542*
children2	-0.277*	-0.259*
children3	-0.169*	-0.081*
Adult>65	-0.021	-0.058**
LIMIT_1	1.046*	0.722*
LIMIT_2	1.145*	1.023*
TOTAL OBSERV.	33,568	33,448
Pseudo-R2	0.143	0.133

Multinomial version

All variables keep the sign and significance except for the children categories in the vPT option:

Only the category children2 (3 to 5 years) is significant BUT POSITIVE.

Extended model: + job characteristics

Only employed population: PT y FT

- Type of occupation/activity (socio-economic classification)

- Type of contract

- Firm size (not available for 2008)

- **Want to work more hours**

Much better including market variables, individual and family characteristics still significative.

Salaried workers (cohabiting, head or spouse), 2008 Binary Logit (PT,FT)	Men	Women
edu2	0.005	0.288[*]
edu3	-0.064	0.733[*]
edu4	-0.446[**]	1.042[*]
married	0.341[*]	-0.455[*]
children1	-0.175	-0.967[*]
children2	-0.013	-0.525[*]
children3	0.103	-0.127[*]
Primary sect	0.650[*]	2.794[*]
Blue collar	1.162[*]	1.498[*]
Professional	-0.313[**]	0.169[*]
Private sect	-0.529[*]	-1.563[*]
Contract	0.956[*]	0.661[*]
More hours	-2.352[*]	-2.477[*]
TOT OBS	19,470	14,576
Ps-R2	0.320	0.239

Multinomial – SALARIED WOMEN

$$Y = \begin{cases} 0 & \text{vPT} \\ 1 & \text{invPT} \\ 2 & \text{vFT} \end{cases}$$

vPT := don't want FT + rest of reasons if don't want more hours

invPT := FT not found + rest of reasons if want more hours

Salaried Women (cohabiting, head or spouse), 2008 Multinomial Logit

	Model 1		Model 2	
	InvPT	FT	InvPT	FT
edu2	-0.129	0.314*	-0131	0.253*
edu3	-0.359*	0.788*	-0.348*	0.640*
edu4	-0.395*	1.537*	-0.397*	0.971*
married	-0.595*	-0.436*	-0.519*	-0.501*
H unemp	0.528*	0.404*	0.498*	0.433*
chidren1	-0.788*	-1.075*	-0.761*	-1.129*
children2	-0.363*	-0.552*	-0383*	-0.621*
Primary s.			-0.847*	2.416*
Blue-collar			-0.540*	1.359*
professional			-0.013	0.213*
Priv sector			-0.123	-1.659*
Type contr			-0.904*	0.513*
TOT OBS		14,576		14,576
Ps-R2		0.069		0.1412

Not finished yet

Endogeneity

Marginal effects family vs market variables

Concluding remarks

❑ It is important to distinguish between voluntary and involuntary PT.

❑ Individuals' preference for the social tradition on gender roles? (importance of family characteristics by gender)

❑ Employers' preferences for the social tradition?

Low education level in PT-women (non-professional)

High education level in PT-men (professional)

Thank you for your attention