REGIONAL EMPLOYMENT AND UNEMPLOYMENT BY GENDER IN SPAIN IN COMPARISON WITH OTHER EUROPEAN COUNTRIES

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Abstract

We analyze regional employment by sector and gender in Spain and found that the highest values for women participation in labour correspond to services where the rates of male and females employed people, per one thousand inhabitants, in year 2009 was 287 of which 154 (54%) are women and 133 (46%) are men. These figures are below those of the USA and advanced European countries. Employment rate per one thousand inhabitants in Spain is particularly low in Education and Health with only 46 employments per one thousand people, while in Germany and USA reach, respectively, 78 and 100. There is a high concentration of female employment in Services. We found, both at regional level of Spain and at European countries level, that industrial production has, among other factors, an important positive effect on real value-added of Services and we estimate a panel model of 7 OECD countries for the period 1994-2006.

Keywords: Regional Employment by gender, Unemployment in Spain, Employment by Gender in European countries,

JEL Codes:

1. Regional employment and unemployment by gender in Spain in year 2009
1.1. Rates of employment by gender and sector per one thousand people.

Tables 1a and 1b present the rates of employment by sector and gender in Spanish regions, for the year 2009, per one thousand inhabitants. The rate of total employment amounted to 404 employed persons per one thousand inhabitants, of which 228 where men and 176 women.

The highest values for female employment correspond to Madrid, with 211 employed women per one thousand inhabitants, followed by Baleares with 196, Cataluña with 193 and Pais Vasco with 192. The lowest values, below 150, corresponded to Andalucia (146), Castilla-La Mancha (149) and Extremadura (137). The difference between maximum (Madrid) and minimum (Extremadura) is 74 female employments per one thousand inhabitants.

In the case of male rates the highest value corresponded to Rioja with 251 male employments per one thousand inhabitants and the minimum to Andalucia with 206, with a difference, between both values, of 45 male employment per one thousand people.

Agriculture: The highest rates of employment in Agriculture, with more than 30 employed persons per one thousand people, were achieved in three regions: Extremadura, Galicia and Murcia. Male employment in this sector is higher than female one, with 12 men and 4 women workers per one thousand inhabitants in whole Spain.

Industry: The highest rates of employment in industry, with more than 80 employments per one thousand inhabitant corresponded to Aragon, Cataluña, Pais Vasco, Navarra and Rioja, with an outsanding value of 123 in Navarra. Male employment in this sector is higher than female one with 45 men and 15 women employed in industrial activities per one thousand inhabitants.

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Table 1a. Rates of employment by gender and sector in year 2009 in Spanish Regions
(employed people per one thousand inhabitants): Agriculture, Industry and Construction

Region	Agri. M	Agri. F	Agri. All	Ind. M	Ind. F	Ind. All	Const. M	Const. F	Const. All
Andalucia (an)	19	7	26	27	7	33	32	2	34
Aragon (ar)	17	4	21	63	17	81	40	3	43
Asturias (as)	10	6	15	48	9	57	35	2	37
Baleares (bl)	4	2	6	28	7	36	57	3	60
Canarias (cn)	7	3	10	20	4	24	33	3	36
Cantabria (cb)	11	6	17	59	13	72	43	5	47
Castilla y Leon (cl)	21	5	26	56	14	70	38	3	41
Castilla-Mancha (cm)	21	3	25	50	15	65	47	3	50
Cataluña (ct)	6	2	8	57	27	84	39	4	44
Com. Valenciana (cv)	11	2	13	50	16	67	40	3	43
Extremadura (ex)	30	8	38	32	6	38	37	2	40
Galicia (ga)	19	13	33	51	19	69	38	3	41
Madrid (ma)	1	1	2	32	12	44	35	4	39
Murcia (mu)	30	14	44	40	12	52	37	3	40
Navarra (na)	17	3	20	92	31	123	36	3	39
Pais Vasco (pv)	4	2	6	79	19	98	31	3	34
Rioja (ri)	17	2	18	77	32	109	42	3	46
Spain (es)	12	4	17	45	15	60	37	3	40

Source: Elaborated by Guisan and Exposito from INE(2010). Note: M=male, F=female, All=M+F

Table 1b. Rates of employment by gender in Services and Total in year 2009 in Spanish regions,
(employed people per one thousand inhabitants).

Region	Services			Total		
	Male	Female	All	Male	Female	All
an	129	130	259	206	146	353
ar	122	160	282	243	185	427
as	120	159	278	212	175	387
bl	151	185	336	241	196	437
cn	156	153	309	216	163	379
cb	125	160	284	236	184	420
cl	117	143	260	233	164	397
cm	115	127	242	233	149	382
ct	131	161	292	234	193	427
cv	123	153	275	224	174	398
ex	115	120	235	215	137	352
ga	117	152	268	225	187	412
ma	179	194	373	248	211	459
mu	121	140	262	229	170	398
na	106	151	257	250	188	438
pv	122	168	290	237	192	429
ri	115	146	261	251	183	434
Es	133	154	287	228	176	404

Source: Elaborated by Guisan and Exposito from INE (2010).

Construction: The number of employments per one thousand people of this sector in Spain in year 2009 amounted to 40 , of which 37 for men and 3 for female. The most outstanding regions where Baleares, due to touristic intensity, and Castilla-La Mancha which is a region with important demographic and touristic impacts due to its proximity to Madrid.

Services: with 287 employments per one thousand inhabitants in this sector, of which 154 corresponded to female employment and 133 to male one, it implies that 71% of Spanish workers were occupied in this sector in year 2009. Male employment outnumbered female employment in almost all regions. The highest rates of employment in Services corresponded to Madrid (373), Baleares (336), Canarias (309), Cataluña (292) and Pais Vasco (290).

Total employment: The highest rates of total employment in year 2009, with 420 or more employed persons per one thousand inhabitants, corresponded to: Aragon, Baleares, Cantabria, Cataluña, Madrid, Navarra, Pais Vasco and Rioja. All these regions have outstanding value added per capita in industry and/our tourism what imply high level of activity in many services. The lowest rates in year 2009, with 390 or less employed persons per one thousand inhabitants, corresponded to: Andalucia, Asturias, Canarias, Castilla-La Mancha and Extremadura.

1.2. Unemployment by gender in Spanish regions for year 2009.

Tables 2a and 2b present data of employment and unemployment.

Table 2a. Employment, Unemployment, Population Active (in thousands), and Unemployment Rate (%) by gender in Spanish regions, year 2009

	Employment		Unemployment		Population Active		Unemployment Rate	
	M	F	M	F	M	F	M	F
an	1707	1210	542	450	2249	1660	24.10	27.11
ar	326	248	149	35.6	475	284	31.37	12.55
as	230	190	33.0	32.1	263	222	12.55	14.45
bl	264	215	62.7	42.6	327	258	19.19	16.54
cn	453	342	155.8	126.5	609	469	25.59	27.00
cb	139	108	17.8	15.9	157	124	11.35	12.83
cl	596	420	79.6	83.0	676	503	11.78	16.50
cm	485	310	99.8	84.2	585	394	17.07	21.36
ct	1747	1441	360.2	258.5	2107	1700	17.09	15.21
cv	1139	885	310.5	234.5	1450	1120	21.42	20.95
ex	237	151	49.2	50.8	286	202	17.19	25.17
ga	629	523	83.8	82.1	713	605	11.76	13.57
ma	1577	1342	258.8	217.6	1836	1560	14.10	13.95
mu	331	246	93.8	56.7	425	303	22.08	18.73
na	157	118	17.7	16.1	175	134	10.13	12.01
pv	515	417	61.3	54.3	576	471	10.64	11.52
ri	81	59	11.6	8.8	93	68	12.53	12.98
Es	10658	8227	2292	1857	12950	10084	17.70	18.42

Source: Data INE(2010), elaboration by Guisan and Exposito. M=male, F=Female.Unemployment rate by gender is the % of unemployment by gender on populationactive by gender.

There are 6 regions in table 2a with rates of male and female unemployment below 15% of the corresponding Population Active in year 2009: Asturias, Cantabria, Galicia, Madrid, Navarra, Pais Vasco and Rioja. The highest rates of male unemployment, above 25% of male Population Active, corresponded to Aragon with 31.4% and Canarias with 25.6%. The highest rates of female unemployment, above 25% of female Population Active, corresponded to Andalucia, Canarias and Extremadura. Carrasco et al (2005) found that generally Northern regions of Spain showed better opportunities for women than southern regions regarding employment, wages and other indicators.

Table 2 b. Employment, unemployment and Population Active, in Spanish regions, year 2009, both genders (thousands), unemployment rate, ER and PAR

	Employ ment	Unemploy ment	Population Active	Unemploy- ment rate	Popula tion	ER	PAR
an	2917	992	3911	25.36	8286	35.23	47.20
ar	575	84	655	12.82	1343	42.52	48.77
as	420	65	480	13.54	1085	38.24	44.24
bl	479	105	580	18.10	1095	43.38	52.97
cn	795	282	1075	26.23	2099	37.79	51.22
cb	247	33	276	11.96	589	41.25	46.86
cl	1016	162	1176	13.78	2560	39.61	45.94
cm	794	184	974	18.89	2079	37.99	46.84
ct	3189	618	3803	16.25	7467	42.65	50.93
cv	2024	545	2563	21.26	5085	39.69	50.41
ex	387	100	482	20.75	1100	34.73	43.82
ga	1151	165	1311	12.59	2795	41.00	46.91
ma	2919	476	3388	14.05	6360	45.78	53.27
mu	577	150	722	20.78	1445	39.57	49.95
na	276	33	304	10.86	630	43.05	48.29
pv	931	115	1042	11.04	2171	42.69	47.99
ri	139	20	155	12.90	321	42.05	48.28
Es	18885	4149	23033	18.01	46746	40.40	49.27

Source: Data from INE(2010) and elaboration by Guisan and Exposito. M=male, F=Female. Unemployment rate is the percentage of unemployment by on population active. ER and PAR are, respectively the "employment rate" and the "population active rate" as % of total population.

Madrid is the most outstanding region in graph 1 with nearly 46%, followed by Baleares, Aragon, Navarra, Cataluña, Pais Vasco, Rioja, Cantabria and Galicia. There are two regions below 36%: Andalucia and Extremadura. It is important to increase employment rates in several regions, particularly in those with values below Spanish average.

Graph 1 shows the Employment Rate (ER) in percentage of total population of Spanish regions in year 2009.

Graph 1. Employments rate (ER) per one thousand people in Spanish regions, year 2009
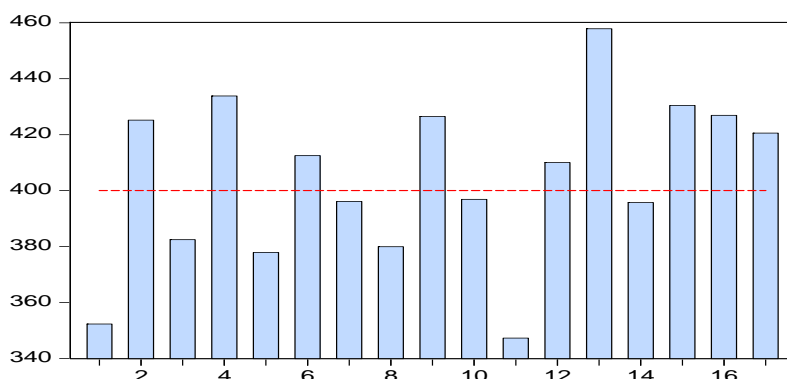
Sources: Elaborated by Guisan and Exposito from INE statistics. See order of regions in table 2b

2. Employments by sector in Spanish regions in year 2009.

Table A1 in the Annex presents more disaggregated data for employment at nine sectors level. we may point to some features of sectoral employment in Spanish regions for year 2009:

Agriculture: With a total of 786 thousand employments of this sector in Spain, the most outstanding regions were: Andalucia, Galicia, Comunidad Valenciana (Com. Valenciana), Castilla y León and Murcia.

Manufacturing: The 7 more outstanding regions in industrial manufacturing, excluding energy, with a total of 2616 thousand employments, were: Cataluña with 23.1%, Com. Valenciana with 12.4%, Madrid with 9.6%, Andalucia with 9.5%, Pais Vasco with 7.8%, Galicia with 7.1% and Castilla y León with 6.4%.

Construction: With a total of 1888 thousand employments of this sector in Spain, the most outstanding regions were: Cataluña with 17.2%, Andalucia with 15.0%, Madrid with 13.1%, Com. Valenciana with 11.5% and Galicia with 6.1%.

Services: With 13431 thousand employments of this sector in Spain, the most outstanding regions were: Madrid with 17.6%, Cataluña with 16.2%, Andalucia with 16.0%, Com. Valenciana with 10.4% and Galicia with 5.6%.

3. Employment and unemployment by gender in Europe and the USA

Table 3 shows the evolution of employment rates by gender in Europe, USA and OECD countries, in the period 2002-2009. The highest rates for female employment, over 73% employment for female population aged 15 to 64 years, correspond to Denmark, Finland, Iceland, Norway, Sweden and Switzerland. All the countries of this group have a high degree of industrialization. The lowest rates of female employment, below 60%, correspond to Greece, Hungary, Italy, Poland and Spain, which are countries with lower degree of industrialization. Difference between male and female rates of employment diminished for the period 2002-2009, where male rate decreased from 82.1% to 80.3% and female rate increased from 59.0 to 61.3, and thus the difference evolved from 23.1 in year 2002 to 19 in year 2009.

Graphs 2 and 3 show the evolution of male and female rates of employment for population aged 25 to 64 years, in Spain in comparison with the the USA and the
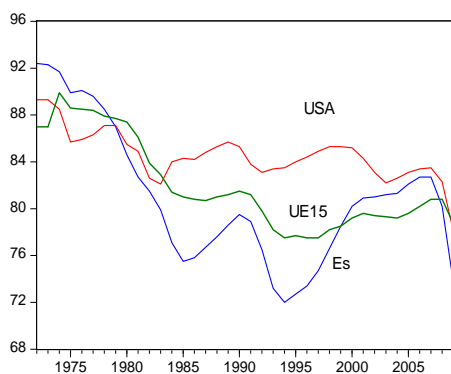
European Union 15 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom).

Table 3. Employment Rates of population aged 25 to 64 years (%).
European countries, USA and OECD, años 2002, 2007 y 2009

Country	Male			Female		
	2002	2007	2009	2002	2007	2009
Austria	80.7	82.5	81.1	64.0	67.2	69.6
Belgium	76.5	77.5	76.2	57.0	62.1	63.3
Czech R.	83.6	84.4	83.4	64.0	64.6	64.1
Denmark	82.9	84.1	81.7	73.7	75.1	75.2
Eslovakia R	73.3	79.3	78.6	59.5	60.9	61.5
Eslovenia	77.1	79.5	78.0	66.6	69.3	70.5
Estonia	76.1	83.9	73.8	67.4	75.7	72.2
Finland	76.4	78.1	76.6	72.0	73.9	73.8
France	79.1	77.6	76.7	64.4	67.1	67.0
Germany	76.7	80.7	81.3	61.9	67.3	69.4
Greece	82.1	83.8	82.0	47.9	53.5	54.6
Hungary	71.2	73.3	70.5	55.6	58.1	57.0
Iceland	93.5	93.3	86.5	85.5	83.3	79.7
Ireland	83.5	84.3	75.1	59.2	64.3	62.5
Italy	76.8	78.5	76.6	46.1	51.5	51.6
Luxembourg	83.5	81.9	82.4	56.2	63.8	63.7
Netherlands	83.9	83.8	83.9	63.9	68.7	71.1
Norway	85.0	85.8	84.8	77.3	78.2	79.2
Poland	67.1	73.3	75.2	54.4	58.0	59.8
Portugal	84.0	81.4	79.0	67.4	68.2	67.8
Spain	81.0	82.7	73.6	48.1	58.8	57.6
Sweden	82.5	85.0	83.5	78.5	78.9	78.1
Switzerland	90.6	89.9	89.6	72.8	74.0	76.1
UK	81.9	83.2	81.1	67.7	68.8	68.7
USA	83.1	83.5	78.0	68.8	69.2	67.2
EU 15	79.4	80.8	78.7	59.6	64.0	64.4
OECD	82.1	83.1	80.3	59.0	61.5	61.3

Source : OCDE(2010) Labour force Statistics.

Graph 2.Rate of Male Employment,1970-2009   Graph 3.Rate of Female Employment,1970-2009
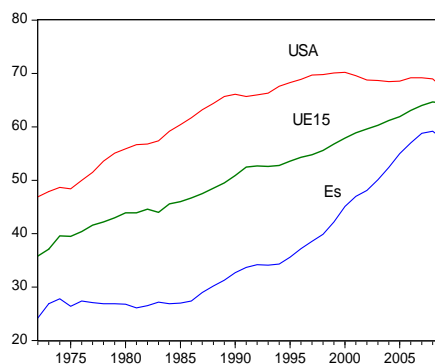
Table 3 shows that in comparison with Germany employment rates in year 2009 were lower in Spain: 57.6% for female against 69.4% in Germany, and 73.6% for male against 81.3% in Germany.

Accordingly to table 4, the main differences of Spain in comparison with Germany and the USA are the lower rates of employment of Spain in Education and Health: the sum of both sectors amounts only to 46 employments per one thousand people, while in Germany and USA are, respectively, 78 and 100.

Table 4. Employment rates in Services in Spain, Germany and the USA
(number of employments per one thousand inhabitants)

Services sectors	USA	Germany	Spain
Commerce	71	71	63
Hotel and Restaurants	33	22	28
Transport and Communications	27	26	24
Financial Services	24	15	8
Business Services	61	65	35
Public Administration	29	32	30
Education	42	28	21
Health	58	50	25
Other social and personal	33	26	18
Domestic	3	8	11
All Services	381	343	263

Source: Elaborated by Guisan and Exposito from OECD National Accounts: years 2005 and 2006.

Table 5 shows unemployment rates in several economic branches by gender in Spain in comparison with Germany and the European Union 25 (EU25).

Table 5. Unemployment rates (UR) by gender in EU15 and USA:
% of unemployed on Population Active, year 2007

Country	URM Male	URF Female	UR gap (URF-URM	URM Male	URF Female	UR gap (URF-URM
Austria	3.90	5.00	1.10	Luxembourg	3.60	4.70
Belgium	6.70	8.50	1.80	Netherlands	2.80	3.70
Denmark	3.50	4.20	0.70	Portugal	6.60	9.60
Finland	6.50	7.20	0.70	Spain	6.40	10.90
France	7.50	8.60	1.10	Sweden	5.90	6.40
Germany	8.60	8.70	0.10	United Kingdom	5.70	5.00
Greece	5.20	12.80	7.60	United States	4.70	4.50
Ireland	4.90	4.20	-0.70	EU27	6.60	7.80
Italy	4.90	7.90	3.00			

Source: OECDE LFS and own calculations for UR gap. See more data in Table A6 in the Annex

In a few cases female unemployment rate in year 2007 was lower than the male one: Canada, Ireland, Japan, Korea, Norway, UK and USA. The unemployment rate gap of women in relation with men was, in year 2007, 1.20 in EU27, and in Spain this gap

amounted to 4.50, being Spain the second country in descending order of this variable after Greece with 7.6%. In year 2009 the Spanish gap diminished to 0.7, given that the increase of male unemployment rate was higher than the increase of female unemployment rate accordingly to data of table 2a.

Table 6 summaries tables A4 and A5 of the Annex about the distribution by sector and branch of male and female employment in Spain in comparison with Germany and 25 countries of the European Union (EU25). In those tables we may notice that Spain shows a deficit of employments in Social Services, particularly in Education and Health, in comparison with Germany and other countries. For that reason we cannot approve stagnation or diminutions of employment in these important services.

Table 6. Male and Female employment by sector and branch in Spain around year 2008

Male employment by sector	Female employment by sector
Agriculture: 5.6%	*Agriculture*: 2.7%
Industry and Construction: 39.8%	*Industry and Construction*: 11.3%
Social Services: 12% (21.7% in Germany)	*Social Services*: 26.5% (34.8% in Germany)
Other Services: 42.6 %	*Other Services*: 59.5%
All Services: 54.6% (55.8% in Germany)	*All Services*: 86% (82.5% in Germany)
Main branches in table A5: Construction, Industry, Public Administration, Commerce retail, Agriculture	*Main branches in table A5*: Commerce, Health & Social Serv., Education, Hotels & Restaurants, Business Services

Source: Elaborated by Guisan and Exposito from OECD Labour Force Statistics and EU(2008).

4. The impact of industry on real value-added and employment in services.

Table 7 and graph 4 show the positive relationship between real Value-Added in Services and Industry, in 6 OECD countries in years 1996 and 2005. The highest ratios between both variables, with value higher than 4, corresponded to France with 4.26, USA with 4.10 and UK with 4.08, while in Germany and Poland the ratio was below 3, and Italy and Spain occupied and intermediate position with values between 3 and 4.

Table 7. Real Value-Added (VA) per capita in Services and Industry and Employment Rate in Services (ERS) in 7 OECD countries, 1996-2005

Country	VA Services 1996	VA Industry 1996	VA Services 2005	VA Industry 2005	ERS 1996	ERS 2005	VA Ratio 1996	VA Ratio 2005
France	13609	3122	15829	3716	283	314	4.36	4.26
Germany	12942	4657	14977	5551	301	339	2.78	2.70
Italy	10611	3848	12424	3745	247	279	2.76	3.32
Poland	2061	761	2934	1171	179	198	2.71	2.51
Spain	7517	2288	9390	2644	199	274	3.29	3.55
UK	13766	4717	18728	4585	363	415	2.92	4.08
USA	21104	5653	26192	6396	345	377	3.73	4.10

Source: Guisan (2010). Elaborated from OECD National Accounts Statistics. Real Value-Added per capita in Dollars at 2000 prices and Purchasing Power Parities (PPPs). ERS = Employment Rate in Services: Number of employed people in Services per one thousand inhabitants.

Some differences among countries may be explained by different organization of business services depending on the degree of outsourcing. If a great percentage of business services in industrial firms are provided by own workers it has a positive effect

on industrial employment but if the industrial firms request business services in the free market for services it has a positive effect on services employment

Graph 4. Relationship between Value-added of Services and Industry
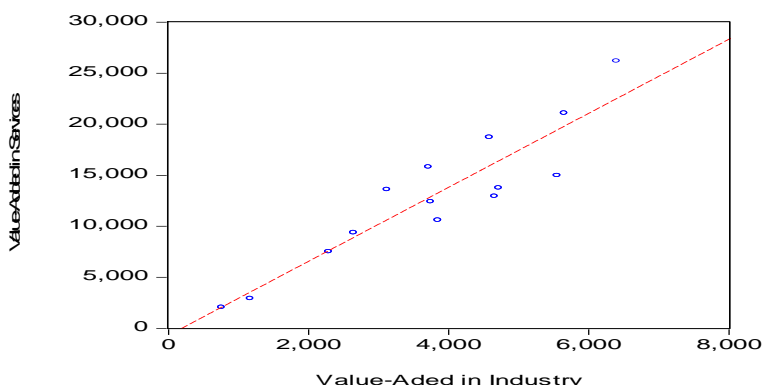
. Table 8 present data of real Value-Added per capita in Dollars at 2000 prices and exchange rates, of industry and services in the seven OECD countries of table 7 in years 1994 and 2006.

Table 8. Real Value Added per capita in Services and Industry, years 1994 and 2006
(Thousand Dollars at 2000 prices and exchange rates)

	France		Germany		Italy		Poland		Spain		USA		UK	
	94	06	94	06	94	06	94	06	94	06	94	06	94	06
Services	13.4	16.0	12.2	15.3	10.4	12.4	1.9	3.1	7.3	9.6	20.2	26.8	12.9	19.4
Industry	3.0	3.7	4.8	5.8	3.8	3.8	0.6	1.3	2.2	2.7	5.3	6.4	4.6	4.6

Source: Elaborated by Guisan and Exposito from OECD National Accounts.

In table 9 we present the estimation of the relationship between real Value-Added per head in Services (QHS00) and Industry (QHI), and the relationship between the Employment Rate in Services (LHS) and QHS00. Estimations correspond to a panel sample of 7 countries of table 7 for the period 1994-2006. Value-added per head is measured in thousand Dollars per inhabitant at 2000 prices and exchange rates, and Employment Rate is the number of employed people per one thousand inhabitants.

Table 9. Estimated equations for real Value-added and employment rate of Services: Panel data

	Dependent variable QHS00		Dependent variable LHS	
Explanatory variables	Method LS	Method GLS	Explanatory variables	Method GLS
QHS00?(-1)	1.0215 (764) *	1.0218 (392)*	C + Country Dummy	196.3 (6.72)*
D(QHI00?)	0.3081 (1.79)**	0.3442 (2.55)*	QHS00?	7.95 (3.80)*
Adjusted R-squared	0.999364	0.999632	Adjusted R-squared	0.991533
S.E. of regression	0.1590	0.1222	S.E. of regression	6.2633
Durbin-Watson stat	0.7015	1.9672	Durbin-Watson stat	1.3996

Note: Panel of 7 countries for 1994-2006. LS=Least Squares and GLS=Generalized LS with AR(1) 0.64 in both equations. Terms between brackets: t student statistics. *, **, significant at 5% and 10% level.

The results show a high goodness of fit and the positive impact of industry on real Value-Added of Services, as well as the positive impact of real Value-Added on the Employment Rate of Services. The GLS estimations have into account the effects of other

Both regressions show a high level of goodness of fit and significant coefficients, being the GLS better because it has into account the effects of some missing explanatory variables through the AR(1) term. In Guisan(2006) and (2007) other effects are analysed

As reported in Guisan and Aguayo(2005) and other studies, industry and tourism are usually of great important to increase real value-added and employment in services in European regions, and thus they have great impact in female employment given the high percentage of employment of women in services.

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Annex

A1. Employment by sector (thousand people) in year 2009.

	LT	(A)	(E)	(Q)	(K)	(C)	(B)	(Z)	(L)	(G)	U
An	2923	217	25	38	82	129	284	140	1361	643	992
Ar	574	28	5	19	45	38	58	24	247	107	84
As	419	16	6	19	15	20	39	21	202	77	65
Bl	478	6	3	4	10	19	65	28	263	77	105
Cn	795	22	6	6	13	24	75	49	437	161	282
Cb	247	10	1	9	17	13	27	12	109	45	33
Cl	1017	66	10	26	51	91	105	47	416	202	162
Cm	794	51	7	21	29	75	104	43	292	168	184
Ct	3188	57	18	112	243	251	325	195	1518	466	618
CV	2021	67	11	70	71	184	217	93	967	338	545
Ex	386	42	5	7	9	19	43	12	140	105	100
Ga	1151	91	7	25	63	97	115	53	487	208	165
Ma	2917	13	29	40	98	112	248	232	1532	608	476
Mu	575	63	5	7	19	43	58	23	241	113	150
Na	275	12	3	9	34	29	24	11	106	43	33
PV	93	13	7	36	116	52	74	49	433	147	115
Ri	139	5	1	3	8	22	14	4	54	24	20
Es	18888	786	155	460	931	1227	1888	1045	8831	3561	4149

A2. Employment by sector (% of each region in Spanish total)

obs	ZLA09	ZLI09	ZLB09	ZLZ09	ZLL09	ZLG09	ZLS09	ZU09	ZPA09
1	27.61	9.88	15.04	13.40	15.41	18.06	15.96	23.91	16.98
2	3.56	3.86	3.07	2.30	2.80	3.00	2.81	2.02	2.84
3	2.04	2.16	2.07	2.01	2.29	2.16	2.23	1.57	2.08
4	0.76	1.30	3.44	2.68	2.98	2.16	2.74	2.53	2.52
5	2.80	1.77	3.97	4.69	4.95	4.52	4.82	6.80	4.67
6	1.27	1.44	1.43	1.15	1.23	1.26	1.24	0.80	1.20
7	8.40	6.42	5.56	4.50	4.71	5.67	4.95	3.90	5.11
8	6.49	4.76	5.51	4.11	3.31	4.72	3.74	4.43	4.23
9	7.25	22.50	17.21	18.66	17.19	13.09	16.22	14.90	16.51
10	8.52	12.12	11.49	8.90	10.95	9.49	10.40	13.14	11.13
11	5.34	1.44	2.28	1.15	1.59	2.95	1.91	2.41	2.09
12	11.58	6.92	6.09	5.07	5.51	5.84	5.57	3.98	5.69
13	1.65	10.06	13.14	22.20	17.35	17.07	17.65	11.47	14.71
14	8.02	2.67	3.07	2.20	2.73	3.17	2.81	3.62	3.13
15	1.53	2.70	1.27	1.05	1.20	1.21	1.19	0.80	1.32
16	1.65	7.61	3.92	4.69	4.90	4.13	4.68	2.77	4.52
17	0.64	1.23	0.74	0.38	0.61	0.67	0.61	0.48	0.67

A3. % of each region in Spanish total at sectoral level: Industry

obs	ZLE09	ZLQ09	ZLK09	ZLC09	ZLM09	ZLI09
1	16.13	8.26	8.81	10.51	**9.51**	9.88
2	3.23	4.13	4.83	3.10	3.90	3.86
3	3.87	4.13	1.61	1.63	2.06	2.16
4	1.94	0.87	1.07	1.55	1.26	1.30
5	3.87	1.30	1.40	1.96	1.64	1.77
6	0.65	1.96	1.83	1.06	1.49	1.44
7	6.45	5.65	5.48	7.42	**6.42**	6.42
8	4.52	4.57	3.11	6.11	4.77	4.76
9	11.61	24.35	26.10	20.46	**23.15**	22.50
10	7.10	15.22	7.63	15.00	**12.41**	12.12
11	3.23	1.52	0.97	1.55	1.34	1.44
12	4.52	5.43	6.77	7.91	**7.07**	6.92
13	18.71	8.70	10.53	9.13	**9.55**	10.06
14	3.23	1.52	2.04	3.50	2.64	2.67
15	1.94	1.96	3.65	2.36	2.75	2.70
16	4.52	7.83	12.46	4.24	**7.79**	7.61
17	0.65	0.65	0.86	1.79	1.26	1.23

Table A4 % of employment by sector

	Agriculture		Industry and Construction		Services	
Country around 2008	**M**	**F**	**M**	**F**	**M**	**F**
Austria (2008)	5.5	5.6	37.4	12.4	57.1	82.0
Belgium (2008)	2.4	1	36	10.5	61.6	88.5
Denmark (2008)	4.1	1.2	31.8	12	64.1	86.8
Euro area (2008)	4.52	2.77	37.52	13.36	58.0	83.9
Europe & Central Asia (2007)	16.11	15.67	35.38	19.15	48.5	65.2
Finland (2008)	6.2	2.6	38.8	11	55.0	86.4
France (2008)	4.1	1.9	33.7	11.2	62.2	86.9
Germany (2008)	2.8	1.6	41.4	15.9	55.8	82.5
Greece (2008)	8.3	8.9	22.4	7.1	69.3	84.0
Ireland (2008)	8.8	1.5	37.7	10.3	53.5	88.2
Italy (2008)	4.5	2.9	38.7	16.1	56.8	81.0
Japan (2007)	4.2	4.3	35.3	17.4	60.5	78.3
Latin America& C(2006)	20.26	9.14	28.54	16.04	51.2	74.8
Luxembourg (2008)	2.3	1.3	21.6	6.1	76.1	92.6
Netherlands (2008)	3.4	1.7	27	7.7	69.6	90.6
Portugal (2008)	11	12	39.8	17	49.2	71.0
Spain (2008)	5.6	2.7	39.8	11.3	54.6	86.0
Sweden (2007)	3.4	0.9	32.8	9.1	63.8	90.0
Switzerland (2007)	4.8	2.8	33.6	11.6	61.6	85.6
United Kingdom (2008)	1.9	0.8	31.9	9.1	66.2	90.1
United States (2007)	2	0.7	30.3	9.4	67.7	89.9

Industry: With a total of 2773 thousand employments of this sector in Spain, the most outstanding regions were: Cataluña, Com. Valenciana, Madrid, Andalucia and Pais Vasco. The three most outstanding regions for each industrial sector were: 1) Energy: Madrid, Andalucia and Cataluña. 2) Intermediate goods: Cataluña. Com. Valenciana and Madrid. 3) Capital goods: Cataluña, Pais Vasco and Madrid. 4) Consumption goods: Cataluña, Com. Valenciana and Andalucia.

The 3 most outstanding regions for each sector of services were: 1) Services of transports and communications, Madrid, Cataluña and Andalucia. 2)Services of commerce, hotels, restaurants, business, financial, and other market services (including private health and private education), with a total of 8831 thousand employments: Madrid, Cataluña and Andalucia. 3) Public services (administration, health, education and social services) and other non market services, with a total of 3561 thousand employments: Andalucia, Madrid and Cataluña.

Tabla A5: Distribution by economic branches of male and female employment in Spain, Germany and 25 European Union countries (EU25).

Sector	% of male employment			% of female employment		
	EU25	Germany	Spain	EU25	Germany	Spain
Public Administration	7.2	7.8	6.5	7.3	7.7	6.0
Agriculture	5.2	2.6	5.8	3.8	1.6	3.3
Commerce retail	6.3	5.3	6.0	12.5	12.9	14.3
Commerce wholesale	4.1	3.9	4.2	2.6	2.6	2.5
Construction	13.0	10.6	19.5	1.5	1.9	1.7
Culture and Sport	..	..	..	2.1	1.8	2.1
Domestic Services	..	..	..	2.3	1.0	8.2
Education	3.8	3.3	3.4	11.4	8.6	9.6
Business services	6.1	5.9	5.2	7.3	8.2	8.9
Financial Services	..	..	..	2.2	2.5	1.6
Hotels and Restaurantes	3.4	2.8	5.5	5.1	4.6	9.4
Industry: food+metal+machinery	8.3	10.8	7.1	2.2	2.8	2.1
Health and social services	4.0	10.6	2.6	17.2	18.5	10.9
Trasnport by land	4.2	2.4	4.4	..	..	..
Sales and reparations vehicles	3.2	3.5	3.1	..	..	..
Sum of 15 activities	68.8	69.5	73.3	77.5	74.7	80.6
Other activities	31.2	30.5	26.7	22.5	25.3	19.4
Total	100	100	100	100	100	100

Source:Elaborated from EU(2008). Distribution of Employment in the main NACE 2-digit sectors

Table A6. Unemployment rates (UR) by gender in OECD countries:
% of unemployed on Population Active, year 2007

obs	Country	URM Male	URF Female	UR gap (URF-URM
1	Australia	4.10	4.90	0.80
2	Austria	3.90	5.00	1.10
3	Belgium	6.70	8.50	1.80
4	Canada	6.40	5.70	-0.70
5	Chile	6.30	8.60	2.30
6	Czech Republic	4.20	6.70	2.50
7	Denmark	3.50	4.20	0.70
8	Estonia	5.40	3.90	-1.50
9	Finland	6.50	7.20	0.70
10	France	7.50	8.60	1.10
11	Germany	8.60	8.70	0.10
12	Greece	5.20	12.80	7.60
13	Hungary	7.10	7.60	0.50
14	Iceland	2.30	2.30	0.00
15	Ireland	4.90	4.20	-0.70
16	Israel [1]	6.80	7.90	1.10
17	Italy	4.90	7.90	3.00
18	Japan	3.90	3.70	-0.20
19	Korea	3.70	2.60	-1.10
20	Luxembourg	3.60	4.70	1.10
21	Mexico	3.50	4.10	0.60
22	Netherlands	2.80	3.70	0.90
23	New Zealand	3.40	4.00	0.60
24	Norway	2.60	2.50	-0.10
25	Poland	9.00	10.30	1.30
26	Portugal	6.60	9.60	3.00
27	Slovak Republic	9.90	12.70	2.80
28	Slovenia	4.00	5.90	1.90
29	Spain	6.40	10.90	4.50
30	Sweden	5.90	6.40	0.50
31	Switzerland	2.70	4.20	1.50
32	Turkey	10.00	11.00	1.00
33	United Kingdom	5.70	5.00	-0.70
34	United States	4.70	4.50	-0.20
35	European Union (27 countries)	6.60	7.80	1.20

Source: OECDE Labour Force Statistics and own calculations for UR gap.

Table A7. Model in levels with fixed effects for Employment rate of Services (LHS)

Dependent Variable: LHS?

Method: Pooled Least Squares
Sample (adjusted): 1995 2005
Included observations: 11 after adjustments
Cross-sections included: 7
Total pool (balanced) observations: 77
Convergence achieved after 8 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	196.2985	29.20555	6.721273	0.0000
QHS00?	7.950810	2.091741	3.801048	0.0003
AR(1)	0.642383	0.059202	10.85061	0.0000
Fixed Effects (Cross)				
AX--C	19.53794			
E--C	-21.86954			
F--C	-6.253327			
IT--C	-15.19229			
PL--C	-24.47645			
UK--C	73.12384			
U--C	-24.87017			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.992424	Mean dependent var	292.6905
Adjusted R-squared	0.991533	S.D. dependent var	68.06704
S.E. of regression	6.263266	Akaike info criterion	6.616749
Sum squared resid	2667.538	Schwarz criterion	6.890700
Log likelihood	-245.7448	Hannan-Quinn criter.	6.726327
F-statistic	1113.507	Durbin-Watson stat	1.399558
Prob(F-statistic)	0.000000		