

# Study on job offers in the ICT field in Spain $10^{\rm th}$ Edition, 2006-07

Summary of relevant data

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#### **Characteristics**

- Sample:
  - 441 job ads in national newspapers (on Sundays) in Spain from September 2006 to August 2007.
  - o 676 job profiles/positions offered in job ads
- Definition of job profile: a specific candidate profile for a specific position of any type in the ICT field which can be assumed by computing professionals except:
  - o Those which explicitly require other degrees or exclude computing people.
  - o Sales work force without specific requirements of educational level.
  - o Junior profiles for candidates without previous experience.
- Data do not allow inferring real employment vacancies but opportunities for candidates.
- Job ads are not investigated to check if they are adjusted to reality. However, those ones
  which arouse doubts about their correctness were not processed.
- Total number of job ads 246 with the following sources of information:
  - o ABC newspaper: 194 (42,08%)
  - o El Pais newspaper: 45 (9,76%)
  - o El Mundo/Expansion newspaper: 174 (37,34%)
  - o ATI jobs website (www.ati.es): 48 (10,41%)
- Ads written in:
  - o Written in Spanish: 96,73%
  - o Written in English: 3,27%

### Sample data

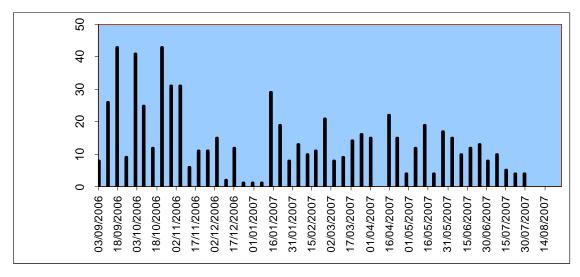


Figure 1. Yearly distribution

Sector	# Ads	% Ads
Computing/IT services	158	35,83%
Not known	44	9,98%
Industrial	26	5,90%
Computing/IT	26	5,90%
Finance	25	5,67%
Technology (aerospace, etc.)	23	5,22%
Consultancy	22	4,99%
Services in general	18	4,08%
Telco	17	3,85%
Health/pharma	13	2,95%
Building/engineering	11	2,49%
Editorial/media	10	2,27%
Retailing	9	2,04%
Transportation/logistics	7	1,59%
Government	5	1,13%
Publicity	5	1,13%
Education	4	0,91%
Agro/food industry	4	0,91%
Entertainment	3	0,68%
Assurance	3	0,68%
Textil & clothing	2	0,45%
Energy	2	0,45%
NGO, associations, etc.	2	0,45%
Internet	1	0,23%
Tourism	1	0,23%

Table 1. Economic sectors for job ads

Functional area	# profiles	% Profiles
Development	365	45,6%
Consultancy	124	15,5%
Systems	87	10,9%
Management	68	8,5%
Technicians	46	5,8%
Experts	38	4,8%
Other	25	3,1%
Sales/commercial	24	3,0%
Name by educational level	21	2,6%
Education/training	2	0,3%

Table 2. Number of offered positions within categories

#### Positions:

- Basic level developers (programmers, developers, etc.): 149 (22,04,22%)
- Medium-level developers (analyst-programmer, etc.): 71 (10,50%)
- High-level developers (analysts, engineers, etc.): 116 (17,16%)
- Project leaders: 41 (6,06%)
- Consultants (all types and levels): 7117 (17,30%)
- Basic-level systems area personnel (operators, support technicians, etc.): 51 (7,55%)



- Non basic-level systems area personnel (system administrators, engineers, etc.): 35 (5,17%)
- Specialists and technicians (all areas): 46 (6,80%)
- Managers (all areas): 68 (10,05%)
- No specific position described, just mention educational level (BS, higher graduate, etc.): 21 (3,47%)
- Sales/commercial workforce: 24 (3,55%)
- Educators/trainers: 2 (0,02%)

## Technical requirements

Requirement	# 2006-07	% 2006-07	% 2005-06
ORACLE	98	14,50%	13,85%
SQL Server	64	9,47%	7,07%
SQL	63	9,32%	5,66%
Databases in general	29	4,29%	3,11%
PL/SQL	25	3,70%	2,92%
DB2	20	2,96%	6,50%
Access	18	2,66%	0,66%
MySQL	17	2,51%	1,51%
Relational database	15	2,22%	2,54%
Database adminsitration	12	1,78%	0,66%

Table3. Databases

Requirement	# 2006-07	% 2006-07	% 2005-06
Netwworking/communications	62	9,17%	4,90%
TCP/IP	29	4,29%	1,60%
Apache	18	2,66%	0,66%
Application servers	18	2,66%	1,41%
CICS	16	2,37%	4,52%
Websphere	15	2,22%	2,73%
Firewall	15	2,22%	0,66%
Network administration and tools	14	2,07%	0,66%
VPN	13	1,92%	0,75%
Exchange/Outlook	13	1,92%	0,75%
LAN	12	1,78%	0,75%
Citrix	12	1,78%	0,19%
Internet/Intranet& Web	11	1,63%	1,51%
Routers	11	1,63%	1,41%
IIS	11	1,63%	0,47%
DNS	10	1,48%	0,75%

Table 3. Communications

Requirement	# 2006-07	% 2006-07	% 2005-06
SAP	58	8,58%	11,03%
ERP	37	5,47%	5,09%
ABAP	31	4,59%	4,34%
Reports and/or Forms (Crystal, Oracle,)	15	2,22%	0,57%
Navision	14	2,07%	2,17%
Visual Studio	10	1,48%	1,23%
ADO	9	1,33%	0,00%
Business Objects	9	1,33%	1,23%
Oracle E-Business Suite	9	1,33%	0,28%
Lotus Notes/Domino	9	1,33%	1,23%
Developer 2000	8	1,18%	1,13%
Peoplesoft	7	1,04%	1,60%
Eclipse	6	0,89%	1,04%

Table 4. Environments, platforms and business applications

Requirement	# 2006-07	% 2006-07	% 2005-06
Instalación y mantenimiento	14	2,07%	2,17%
AS/400	10	1,48%	1,51%
Host	10	1,48%	2,07%
Microcontroladores	6	0,89%	0,75%
Microinformática	6	0,89%	0,66%

Table 5. Hardware

Requirement	# 2006-07	% 2006-07	% 2005-06
Java	99	14,64%	23,37%
.Net	90	13,31%	21,02%
Visual Basic	68	10,06%	12,63%
J2EE	63	9,32%	16,02%
HTML	55	8,14%	8,86%
C++	52	7,69%	10,37%
XML	46	6,80%	7,92%
С	46	6,80%	8,86%
Java Script	45	6,66%	7,07%
COBOL	34	5,03%	9,24%
ASP	32	4,73%	6,97%
PHP	30	4,44%	4,52%
C#	24	3,55%	5,09%
JSP Java	14	2,07%	4,05%
CSS	12	1,78%	1,89%
XSL	11	1,63%	1,60%

Table 6. Programming languages

Requirement	# 2006-07	% 2006-07	% 2005-06
Project management	34	5,03%	8,39%
Application analysis	31	4,59%	4,62%
Apllication design	29	4,29%	5,09%
Methodologies	25	3,70%	3,39%
UML	18	2,66%	4,62%
Domain specific functional requirements	16	2,37%	1,89%
Testing (methods, tools, etc.)	13	1,92%	1,98%
ITIL	12	1,78%	1,98%
Requirements anañysis	12	1,78%	1,23%
Web development/design	10	1,48%	1,13%

Table 7. Software engineering methods, tools, etc.



Requirement	# 2006-07	% 2006-07	% 2005-06
LINUX	57	8,43%	6,31%
UNIX	50	7,40%	8,11%
Windows in general	47	6,95%	7,26%
Windows 2003 server	25	3,70%	1,89%
Windows2000	21	3,11%	1,23%
Systems administration	18	2,66%	0,28%
Windows XP	17	2,51%	0,85%

Table 8. Operating systems

Requirement	# 2006-07	% 2006-07	% 2005-06
Seguridad informática en general	24	3,55%	1,60%
CRM (Customer Rel.Man)	21	3,11%	1,51%
Implantación ERP	17	2,51%	1,60%
Experto (no usuario) en ofimática	16	2,37%	1,51%
MS-Office	11	1,63%	0,94%
Flash	10	1,48%	0,94%
DreamWeaver	9	1,33%	0,75%
Datawarehouse/datamining	9	1,33%	0,94%
Business Intelligence	9	1,33%	0,85%
Almacenamiento y back-up	9	1,33%	0,75%
Auditoría	7	1,04%	0,47%
Photoshop	7	1,04%	0,57%
Antivirus	7	1,04%	0,66%

Table 9. Miscellaneous category

# Non technical requirements

Requirement	# 2006-07	% 2006-07	% 2005-06
Not known	321	47,49%	48,82%
Licenciado/ingeniero en informática (Computing higher degree)	165	24,41%	20,17%
BS in Computing	74	10,95%	8,11%
Telco engineer	66	9,76%	10,65%
Higher degrees in engineering in general	51	7,54%	5,09%
Vocational training education in computing	46	6,80%	6,50%
BS in Tleco Engineering	37	5,47%	4,71%
Speciality in computing (physics graduates, etc.)	36	5,33%	3,68%
Higher degrees in general	32	4,73%	10,84%
Higher degrees in science in general	31	4,59%	4,15%
BS in engineering in general	29	4,29%	4,05%
Business administration degree in general	17	2,51%	1,13%
Industrial engineering degree	17	2,51%	1,70%

Table 11. Educational level

Requirement	Nº perfiles	% 2006-07	% 2005-06
None	370	54,73%	56,64%
High level of English	169	25,00%	26,20%
Fluent English	47	6,95%	5,84%
Intermediate level of English	35	5,18%	6,03%
Written English	34	5,03%	3,96%
Some kwnoledge/technical English	19	2,81%	2,92%
Native spoken English	17	2,51%	5,28%
Native written English	17	2,51%	5,28%
French	16	2,37%	2,17%

Table 12. Language knowledge



Requirement	Nº perfiles	% 2006-07	% 2005-06
Teamwork ability	107	15,83%	9,61%
Dynamic attitude, proactivity	81	11,98%	5,94%
Customer orientation	58	8,58%	7,16%
Networking and communication skills	34	5,03%	0,94%
Management capacity	34	5,03%	2,36%
Communication skills	33	4,88%	6,31%
Analytic capacity	26	3,85%	3,77%
Leadership	25	3,70%	2,36%
Flexibility	20	2,96%	1,04%
Learning ability/motivation	19	2,81%	0,28%
Results orientation	16	2,37%	4,62%
HR management	12	1,78%	2,54%
Team management	12	1,78%	2,83%
Negotiation skills	10	1,48%	1,89%
Commitment, responsability	10	1,48%	0,00%
Challenge assumption, improvement eagerness	10	1,48%	0,28%

Table 13. Soft skills and personal competences

Requirement	Nº perfiles	% 2006-07	% 2005-06
Travelling	65	9,62%	14,42%
Good academic record	7	1,04%	0,38%
Travelling abroad	6	0,89%	0,00%
Flexibility/Tiem availability	6	0,89%	0,00%
Driving license	6	0,89%	1,89%

Table 14. Other requirements

Area	Average experience	% experience required	% experience not specified
Management	3,93	50,41%	2,10%
Sales	3,57	52,41%	0%
Technicians	3,18	58,62%	2,60%
Experts	2,78	67,64%	1,40%
Consultancy	2,55	36,95%	0%
Other	2,5	39,47%	0%
Development	2,37	56,00%	1,90%
Systems	2,16	25,00%	3,40%
Education/training	2	9,50%	0%

Table 15. Previous experience required as specified in the ads

Requirement	Nº perfiles	% 2006-07	% 2005-06
Not specified	219	32,40%	39,59%
Solid/growing/leader company	177	26,18%	19,51%
Wage to be negotiated according to experience, etc.	131	19,38%	15,55%
Good/competitive salary	116	17,16%	10,65%
Opportunities for career development	97	14,35%	12,63%
Permanent contract	82	12,13%	6,50%
Immediate start	76	11,24%	8,20%
Training (permanent, intial, etc.)	69	10,21%	12,06%
Career plan	57	8,43%	0,00%
Multinational company/environment	55	8,14%	10,18%
Interesting/high technology projects	40	5,92%	9,52%
Opportunities for promotion	33	4,88%	3,96%
Good working atmosphere	29	4,29%	4,34%
Benefits (car, social retirement funds, etc.)	29	4,29%	0,94%
Stability/permanent/non temporal hire	27	3,99%	3,11%
Young environment/team	25	3,70%	1,60%
Social benefits	17	2,51%	0,94%
Contract	13	1,92%	1,89%
Bonus	12	1,78%	0,09%
Full time	11	1,63%	5,09%

Table 16. Working conditions offered

