



# Internet Job Portal Adverts and Official Job Vacancy Statistics

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[www.linkedin.com/company/scb](https://www.linkedin.com/company/scb)





# Data Sources

**Swedish Employment Agency**, PB data: 2 206 072 adverts from January 2012 to June 2016

**SCB**, JV data: 410 393 records during the same period, public sector on the legal unit, private sector on the local unit

**SCB**, Business Register

Legal units, local units data for the same period





# Swedish Employment Agency

- One of the main player on labour market
- Official Swedish Employment Agency (SEA)
- Required variables for advertising on the web:  
Company name, Organization Id, Post address, Post code, City, Telephone, description of the company, Occupation title, description of the job, requirement of the job, date of starting, Contact information, Start and end posting date, Employment type, Experience requirement, Work hours, Salary type





# Quality of the PB data -1

Variable	Percentage of good values	Examples of invalid values
Organization Id	99.2%	Null, 0
CompanyName	~100%	-, ---,
Municipality	98.71%	Null, empty space
Occupation	99.54%	Null, 0
TypeofEmployment	~100%	Null, empty space
AdvertsTitle&Text	~100%	-
NumberofOpenings	84.13%	0, Null
PostingDate	100%	-
Posting/ ApplicationDate	98%	1900-01-01





# Quality of the PB data -2

**Company name:** recruiting/outsourcing companies post most adverts.

Top 6 companies and their shares in the PB data:

0.91%; 0.86%; 0.80%; 0.59%; 0.53%; 0.48%

**Municipality:** big cities appear more frequently e.g. Stockholm, Gothenburg, Malmö, Uppsala

**Posting/LastApplication date:** duration days=

LastApplication  
date-Posting date

Range	(-41443, 583)
Mean	25
Median	21
1/4quantile	14
3/4quantile	30





# Quality of the PB data - 3

- Match to the Business Registers

Variable	Percentage of matched values	Formula (Conditions)
OrganizationId	~99.02%	total(invalidOrgNr, PeOrgNr)/totalPB
CompanyName	~0.28%(0.01%)	jw>0.7(lcs>70)
Municipality	97.96%	RegionCode
Occupation	6.07%	OccupationCode
NACE	~93.51%	BR, average of 4 years





# Examples of miss-matched records-organizationId

OrgId	CompanyName	PeOrgId	LegalUnit Name	Work locations
5561887562	Distrikt Uppland, Max i Uppsala 2 - Boländerna	165561887562	MAX HAMBURGER RESTAURANGER AKTIEBOLAG	100
5567380794	Svensk Miljöisolering AB	165567380794	Dex- Tera H-T Dynamic Construction Solutions Scandinavia AB	0

The possible reasons of miss match of names, e.g. the company (local unite) registered with the main organization number. Should compare with other names in the BR.





# Examples of miss-matched records-occupation

Id/Title	CompanyName	Ad_description
5512/ Hungrig lagspelare	Manpower Industri & Logistik	Vi tror på människor och den kraft som uppstår när vi samarbetar. Vi är Sveriges ledande rekryterings- och bemanningsföretag med tiotusentals attraktiva arbetsgivare över hela landet som våra kunder. ...Arbetsbeskrivning Du kommer att jobba i ett lag om ca 10 personer med att dra in kabel från skåp i hallen till övriga rum i privatbostäder. Du blir anställd av Manpower som ambulerande och utthyrd till vår kund...

Match to an older version of SSYK?

More information from Swedish Employment Agency







# PB data - size of the enterprises

- Compare with the Business Registers by legal units; calculated with matched counts.

Number Worklocations	Percentage	Number Employees	Percentage
0/Null	1.67%	0/Null	1.11%
1-10	60.84%	0<E<=9	23.22%
11-250	29.75%	9<E<=49	16.89%
250-1000	5.70%	49<E<=99	6.53%
>1000*	2.04%	99<E<=199	6.37%
		199<E	45.89%

\* Stockholm and Gothenburg Municipalities have more than 1000 work locations. They post many adverts that contribute to 2.04%.



# PB data - sectors

- Match to the Business Registers by legal units; calculated with matched counts, not with the distinct values.

Sector	Percentage	JV	BR
Null	0.98%	5.18%	-
Business	69.65%	91.78%	89.70%
Non-profit organization	1.34%	1.06%	10.24%
Public	16.87%	7.00%	0.05%
Other?	11.16%	-	0.001%





# Link the PB data and the Official Job Vacancy data

- Link to Public sector by Orgnr, Year and Month

Not matched rows	Matched rows
9812 (29.08%)	23926 8 (70.92%)





# Link the PB data and the Official Job Vacancy data

- Linked to Private sector by OrgNr, WorkLocation and Year&Month

Not matched rows	Matched rows
322 464 (85.62%)	54191 (14.39%)





# Summary

- PB data is good enough for analysis;
- PB data covers both big and small companies;
- PB data covers most of the occupations except the *plant and machine operators and assemblers and elementary occupations*;
- Difficult to link at the local units level by the organization Id, should consider address in the adverts;
- Consider to link by year/quarter, not year/month.





# Questions ? & Discussions!

