

Turnover for Scientific Research and Development

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Introduction of SN 2007

- At 2-digit level no changes in the population have occurred.
- At 3-digit level som changes occurred
 1. 98 % of turnover 73.1 → 72.1
 2. 2 % of turnover 73.1 → 72.2
 3. 100 % of turnover 73.2 → 72.2

Turnover transferred from 73.1 → 72.2 accounts for 10 percent of the total turnover in 72.2

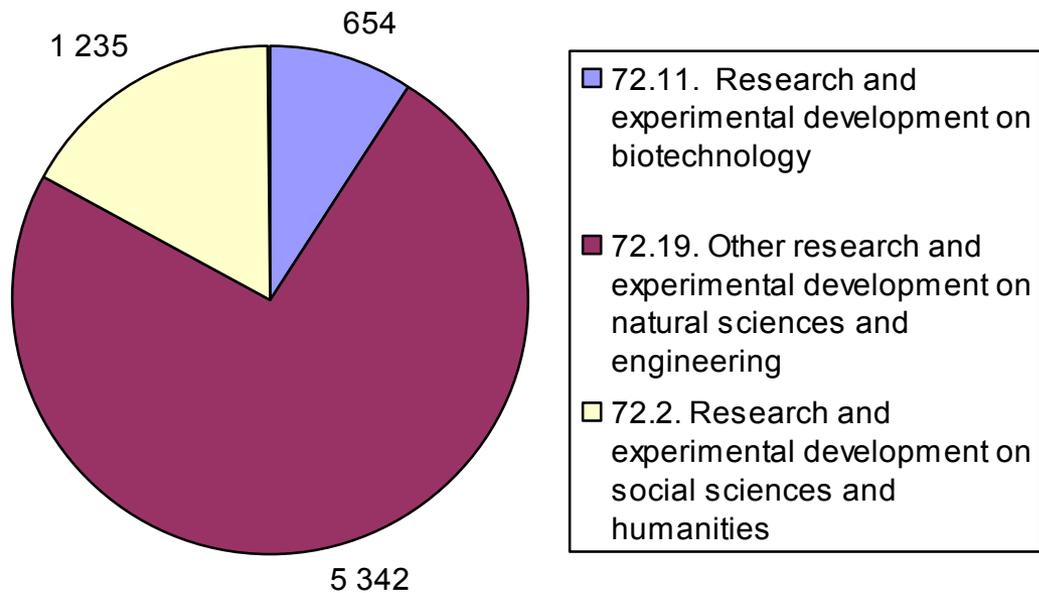
Nace Rev 1.1	Nace Rev 2.	Turnover	Frequency
73.100	72.190	86 %	74 %
73.100	72.110	12 %	21 %
73.100	72.200	2 %	5 %
73.200	72.200	100 %	100 %

Surveys on turnover within Nace 72

- Structural Business Statistics (SBS)
 - An annual statistic, which measures several economic variables in absolute terms.
 - Covers all units within the business sector
 - Sample survey. Enterprise is statistical unit. Coverage rate > 90 %, measured by turnover
 - Preliminary data are published t+10 months
 - Final data are published t+18 months

Turnover in Nace 72, SBS. 2008

Turnover in Nace 72. Enterprises. SBS. 2008. NOK million.



R &D activities within the largest enterprises in SBS, Nace 72.11

- Vaccines for salmon and other fisharts
- Testing of medical products for the medical indistru
- Projects within spesific medical fields
- R&D on products/processes where fibres from trees are used as rawmaterial
- R&D on seafood processing

R & D activities within the largest enterprises in SBS, Nace 72.19

- Materials and chemistry
- Energy technology
- Fisheries technology
- Building and infrastructure
- ICT
- Petroleum
- Geoscientific
- Protection of water bodies and quality.

R &D activities within the largest enterprises in SBS, Nace 72.19

- Industrial economics
- Public welfare services
- Macro, pensions and workinglife
- Culture and societies
- Language
- Computing
- Transport and commication

Data sources for SBS

1. For sample units: Annual accounts
2. For units outside the sample:
 - Annual accounts
 - Register of Annual Company Reports (Joint-Stock units)
 - VAT-register
 - Questionnaire
- For the reference year 2008, 92 per cent of the turnover were collected through the annual accounts

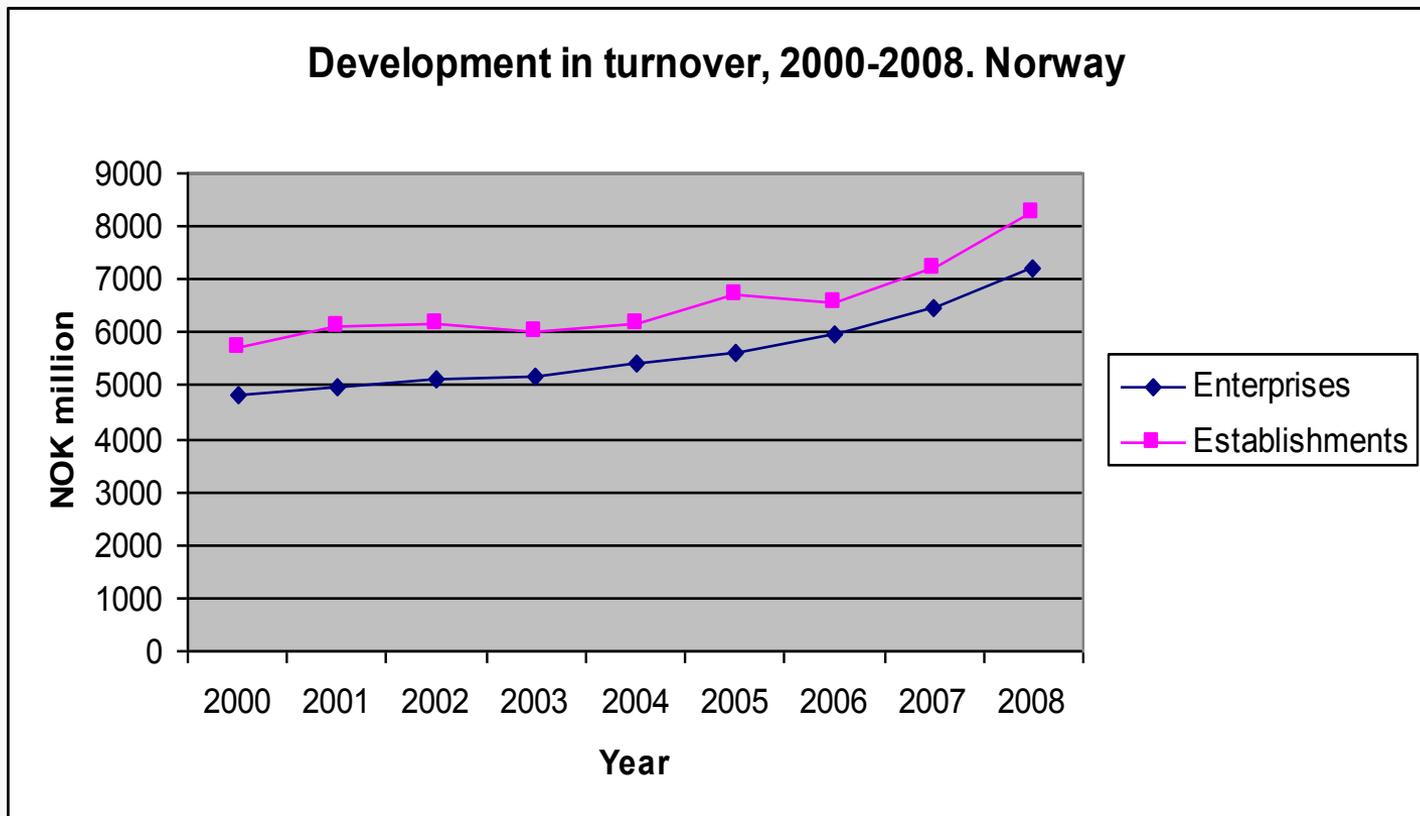
Some results from the SBS 2008

	No. Of enterprises	Employees	Turnover (NOK million)
72.110 Research and Experimental Development on Biotechnology	81	653	654
72.190 Other Research and Experimental Development on Natural Sciences and Engineering	285	5 516	5 342
72.200 Research and Experimental Development on Social Sciences and Humanities	123	2 134	1 235
Total nace 72	501	8 303	7 232

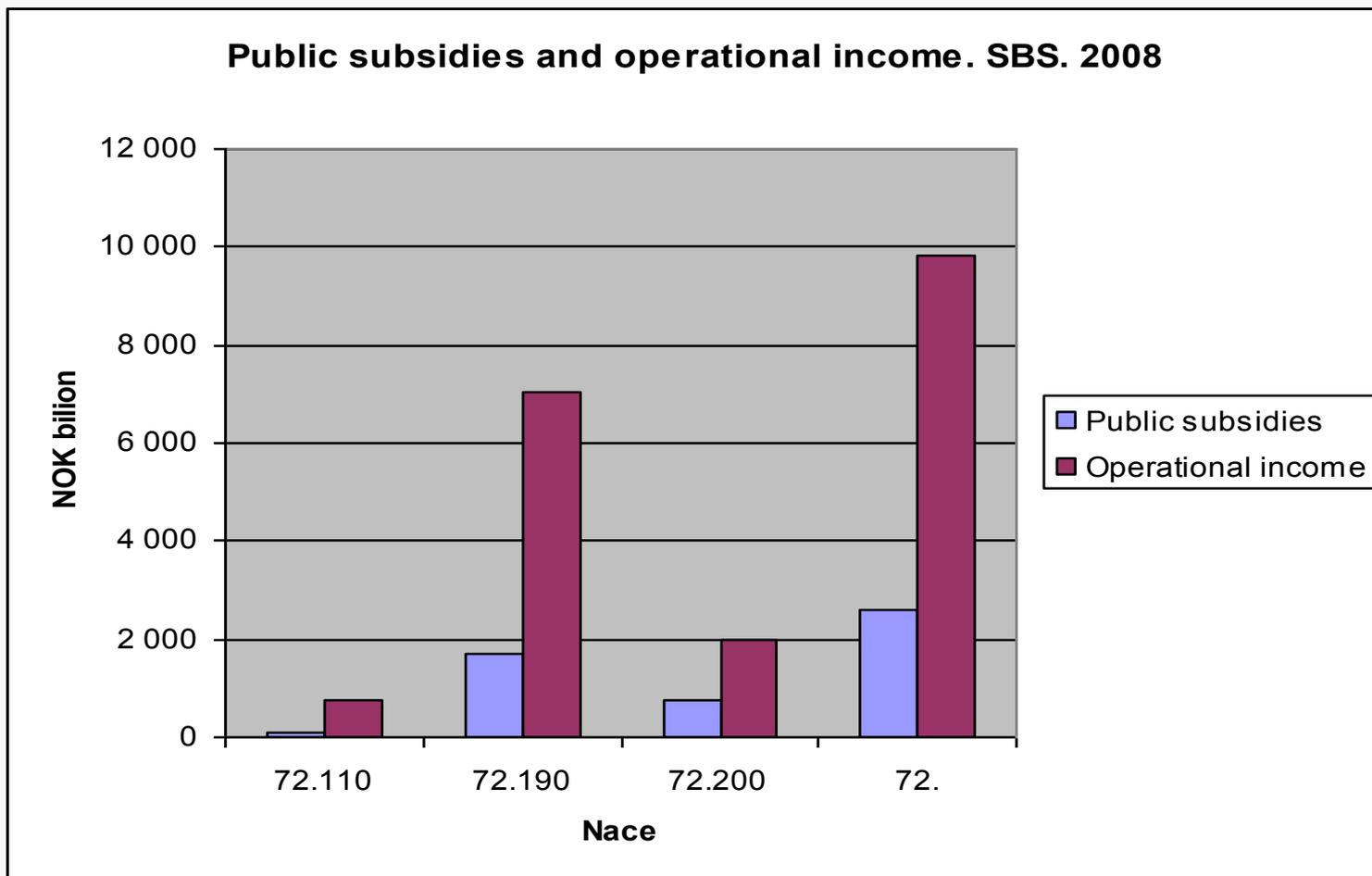
Some results from the SBS 2008

Structural Business Statistics 2008			
Employmentgroups	Enterprises	Employment	Turnover
0-9	81 %	6 %	10 %
10-19	4 %	4 %	3 %
20-49	7 %	13 %	15 %
50+	8 %	77 %	72 %
Total	100 %	100 %	100 %

Some results from the SBS 2008



Some results from the SBS 2008



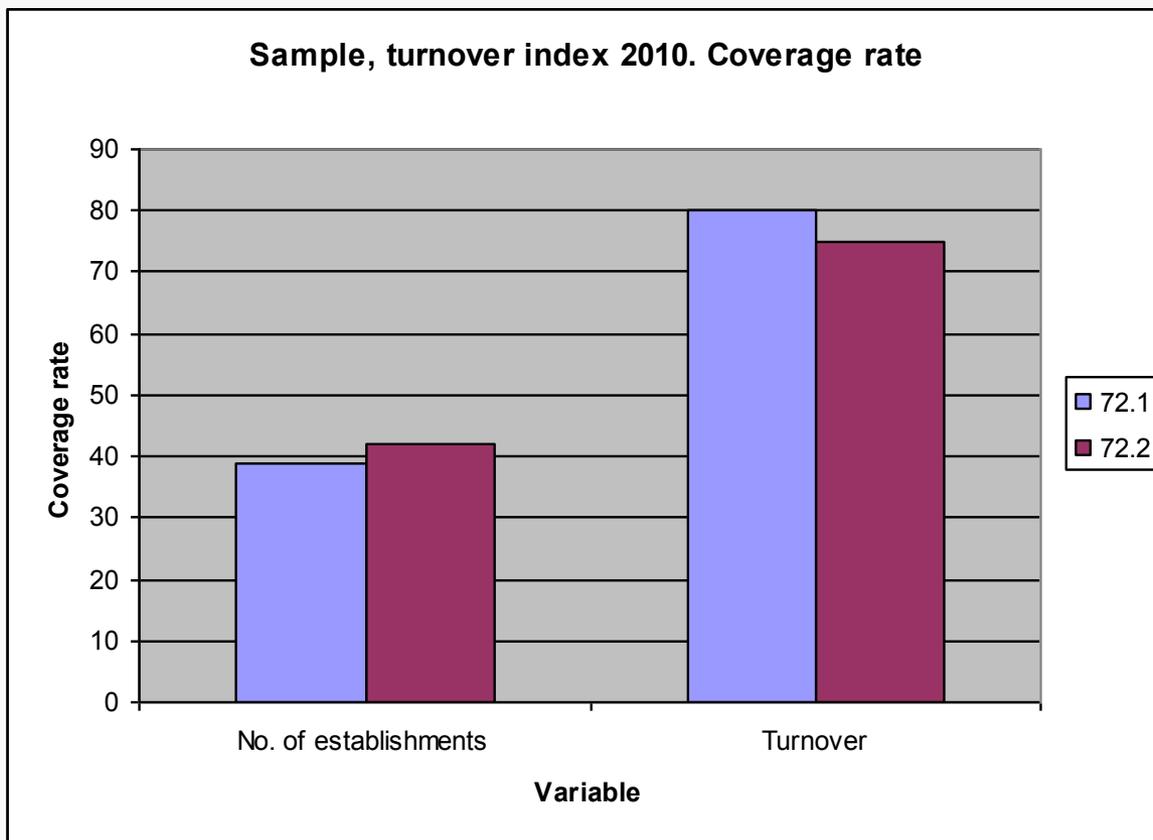
Limitations and uncertainties

- No data collection at product level
- Errors in administrative register
- Majority av R&D activities takes place outside the scope of the SBS. SBS is therefore not a tool for measuring total activity level within R&D in Norway

Surveys on turnover within Nace 72

- Short term statistic
 - Quarterly turnoverindex, which produces index-values.
 - Sample survey, statistical unit is establishment
 - Sample is stratified after nacegroup, size (turnover),type, age and identical/new units.
 - Data are published 55-60 days after the end of the referenceperiod.

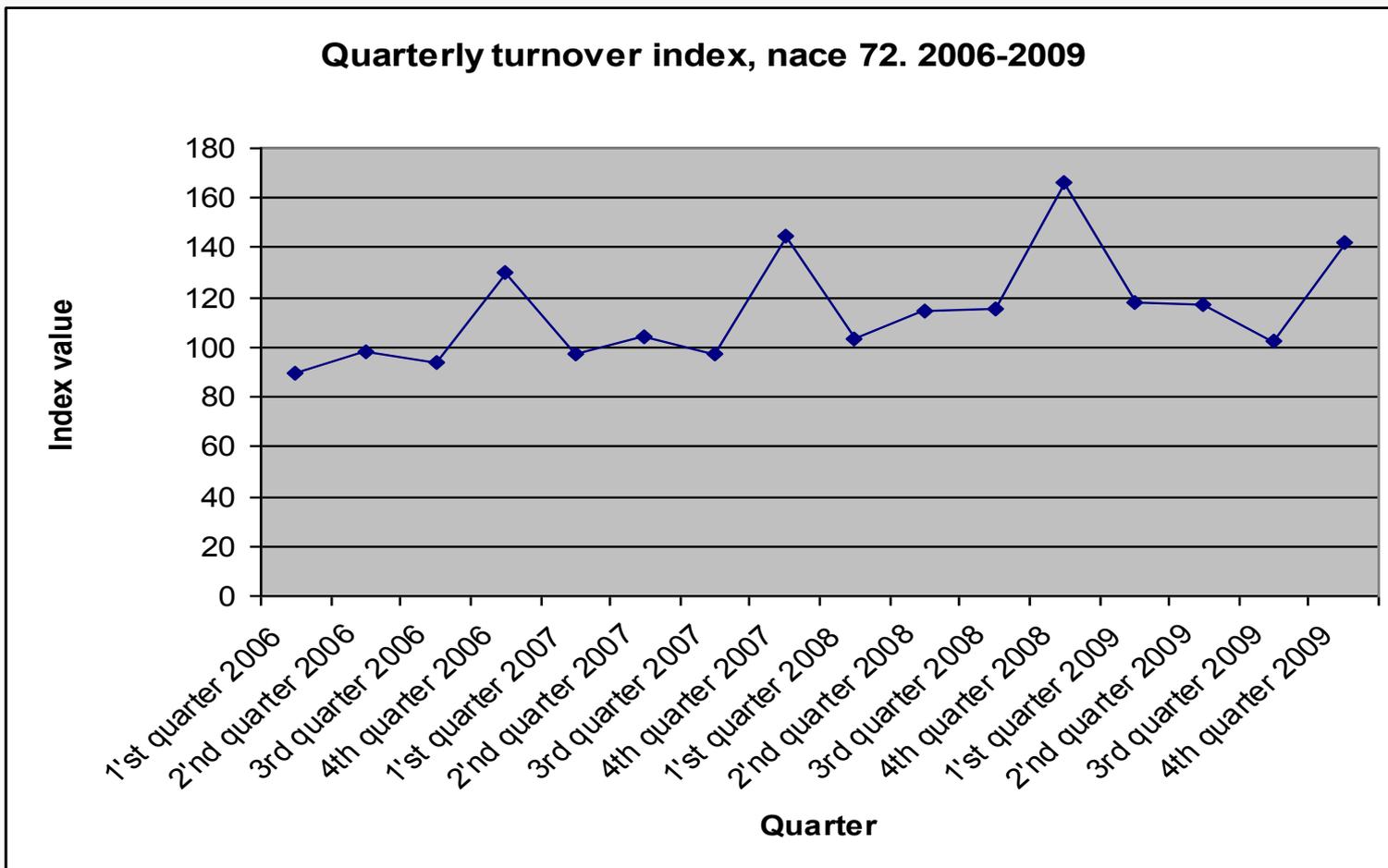
Sample for the quarterly turnover index



Estimation of index

- We distinguish between identical and new units. Both types of units receive a questionnaire, asking for turnover
- For all units in the population we have information concerning employment from administrative registers
- For identical units a ratio estimator is applied to each stratum to inflate sample to population level
- For new units, turnover is estimated for the population from a factor between turnover/employees from sample units, in each stratum

Results from the quarterly turnoverindex, Nace 72

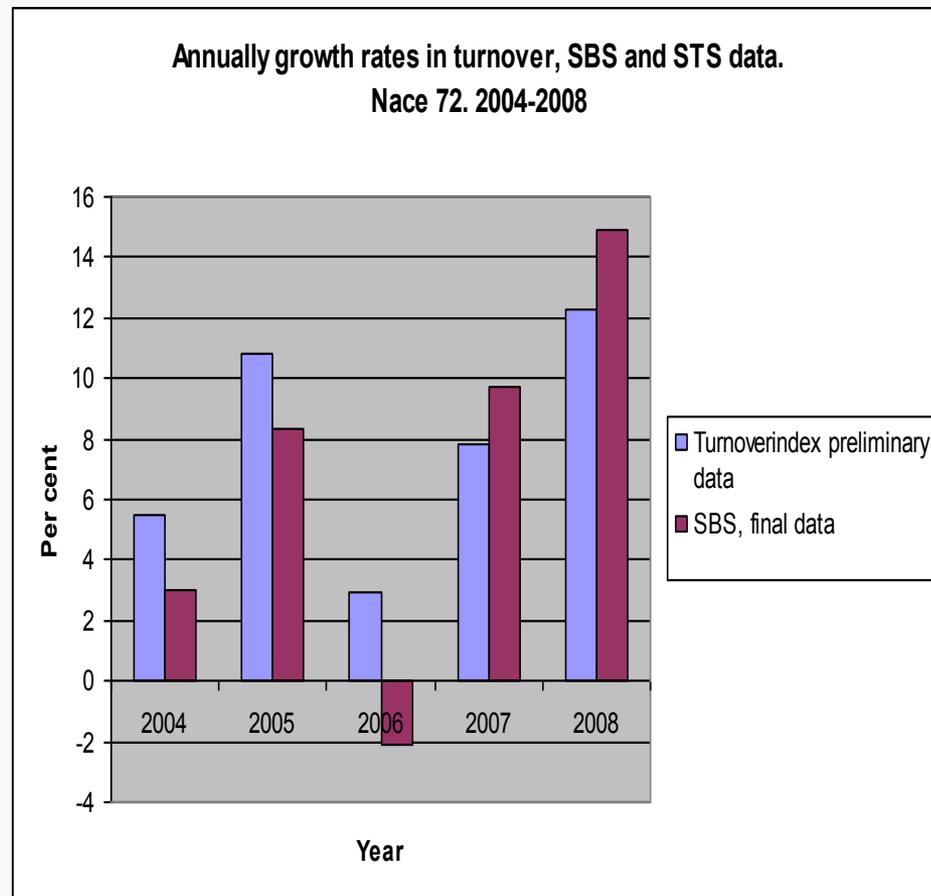


Limitations and uncertainties

- Errors in administrative registers
- Response from establishments sometimes include public subsidies. This should be not included in the turnover
- Sample Survey

Comparison between the statistics

- Possible reasons for differences between the statistics
 - errors in the questionnaires
 - differences in nace code
 - census versus sample survey

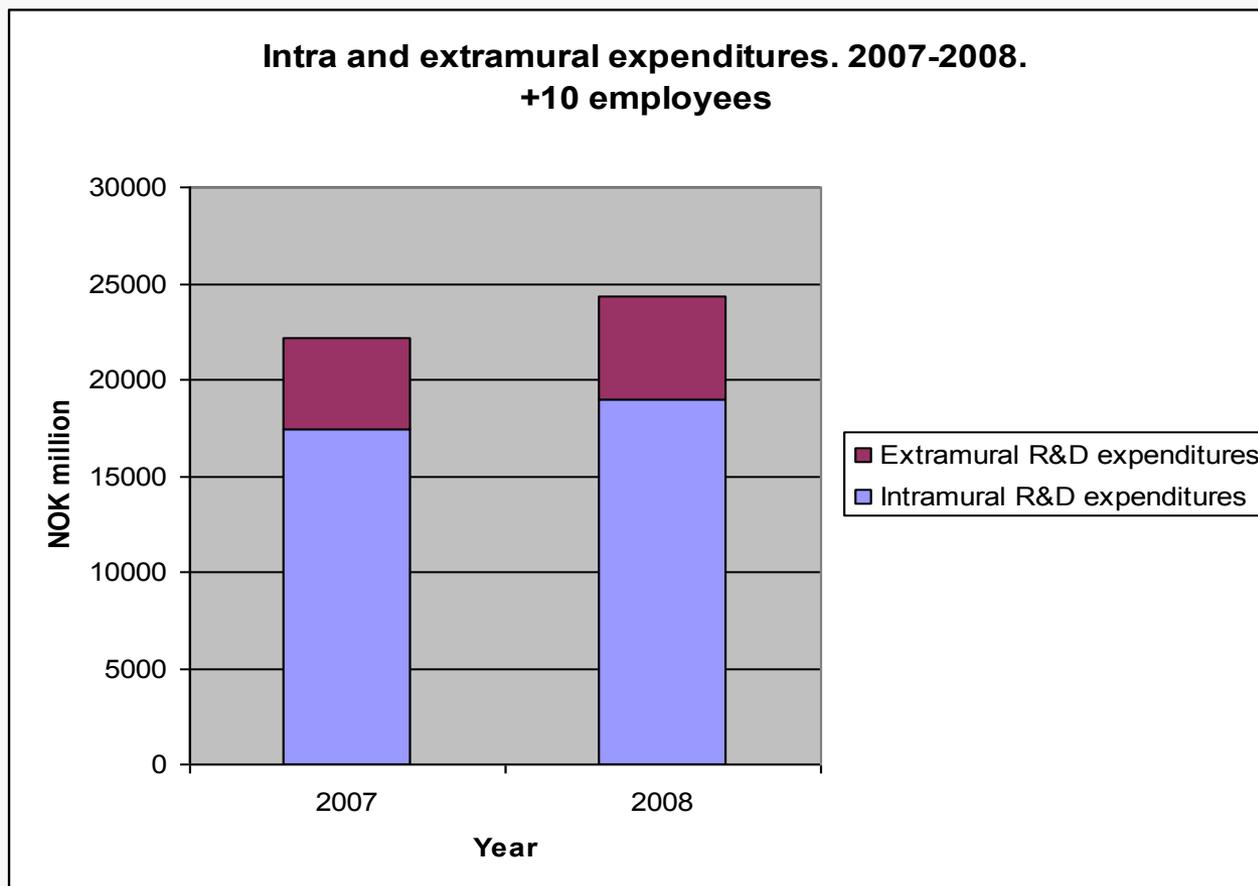


Other statistics within R&D

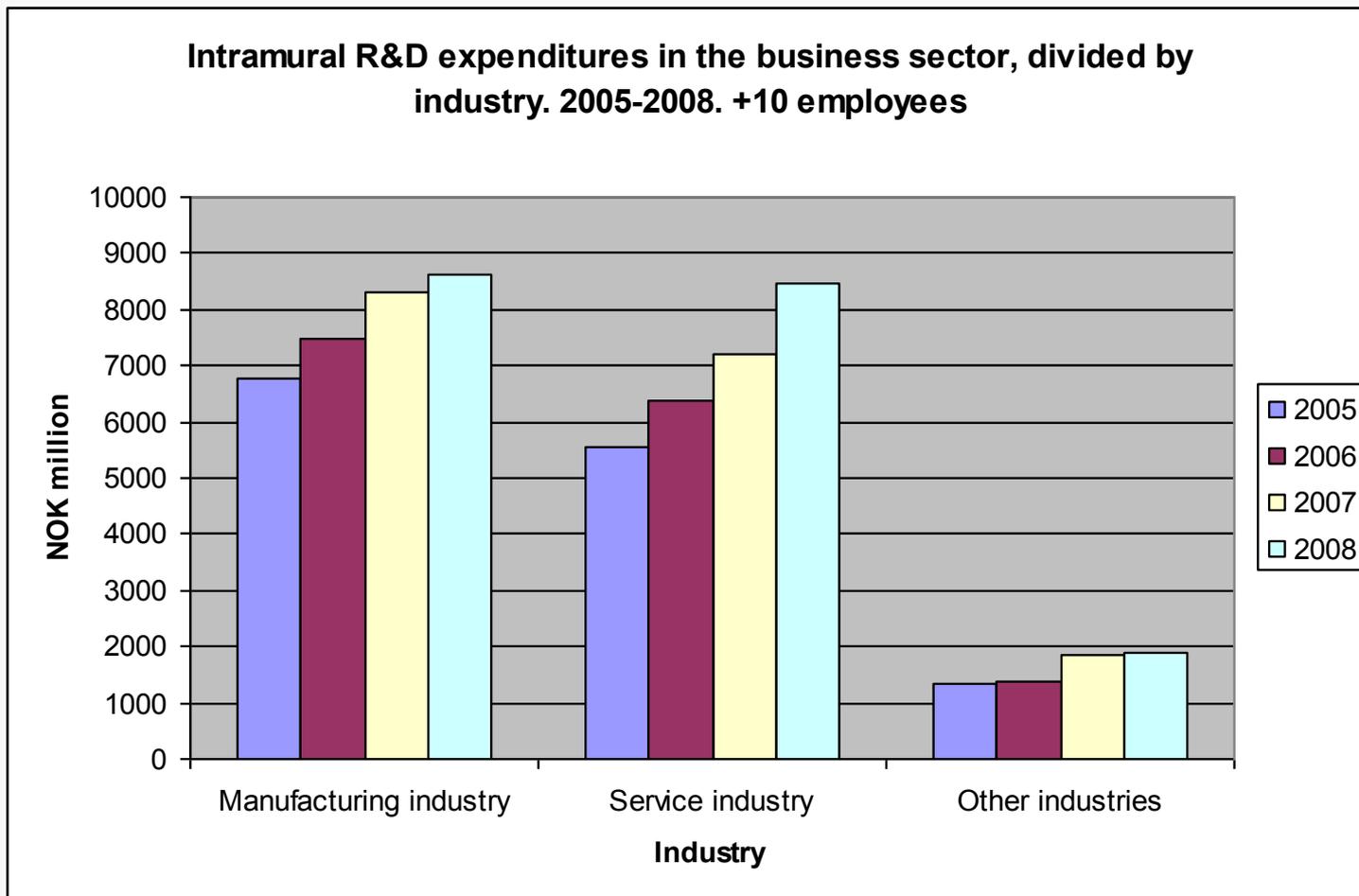
- Scope of R&D activities/expenditures in the business sector, divided by:
 - intra/extramural activities
 - industry sector
 - technology og thematic fields
 - Employment

The survey is annually

Some results from the last survey



Some results from the last survey



Total scope of R & D activities in Norway

- NIFU STEP (Norwegian Institute for Studies in Innovation Research and Education) - and Statistics Norway has published figures which shows total R&D expenditures in Norway, divided by sector.
- Total expenditures:
NOK 41 billion
- Comparison with SBS 2008
Total turnover: NOK 7-8 billion

