



Is the scope of under-reporting of occupational accidents large?

Matthias Fritz

**Eurostat, unit F5
"Education, health
and social
protection"**

How to respond to the EU OSH strategy framework request for better statistics

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EU Strategic Framework on Health and Safety at Work 2014-2020 (1)

Objective 4.6: Improve statistical data collection and develop the information base

- evidence-based policy making
- collect reliable, timely and comparable statistical data
- on work-related accidents and diseases, occupational exposures, work-related ill-health, and to analyse the costs and benefits in the area of OSH

EU Strategic Framework on Health and Safety at Work 2014-2020 (2)

Actions as from 2014 with relevance for Eurostat:

- Assess the quality of data on accidents at work transmitted by Member States in the framework of the ESAW data collection, with the aim of improving coverage, reliability, comparability and timeliness
- By the end of 2016, examine different options to improve the availability and comparability of data on occupational diseases at EU level and assess the feasibility of a simplified data transmission

Under-reporting

- Definition: (partial) non-notification of accidents although the part of the economy/workforce is in principle covered
- In contrast to under-coverage, under-reporting is not a consequence of an explicit exclusion of cases from the reporting of accidents
- Under-reporting is more a hidden feature of reporting systems, in which victims and/or employers decide to not report for a variety of reasons or do not know that there is an obligation to report.
- Under-reporting is much harder to know and quantify, in particular if accidents are less serious.

Under-reporting (2)

- Insurance based versus legal obligation notification systems
- Less incentive to report in legal obligation systems, depending on the seriousness of the event (fatal etc.)
- Possible barriers to reporting:
 - lack of knowledge about the possibility/obligation to report
 - time to be spent to get and fill out the accident report form
 - possible negative consequences for victims in the company
 - possible negative influence on the reputation of the employer
 - financial or other legal consequences for the employer
 - Perhaps cultural differences in reacting to minor accidents
- Possible over-reporting in insurance-based systems with a high economic or other incentive, in particular in case of less serious accidents.

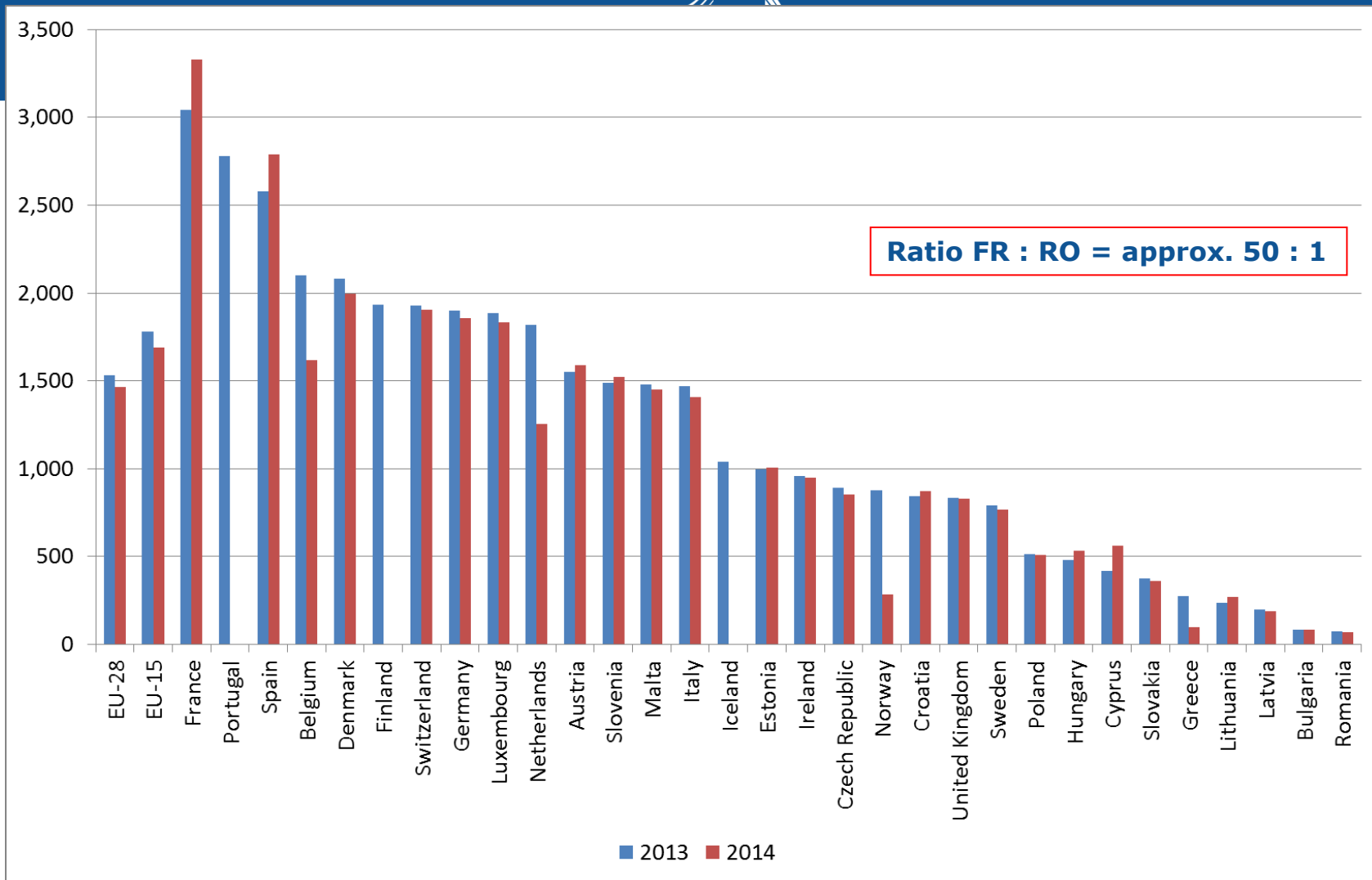


Figure: Incidence rates of non-fatal work accidents, all economic branches, 2013 - 14 (accidents per 100,000 employed persons)

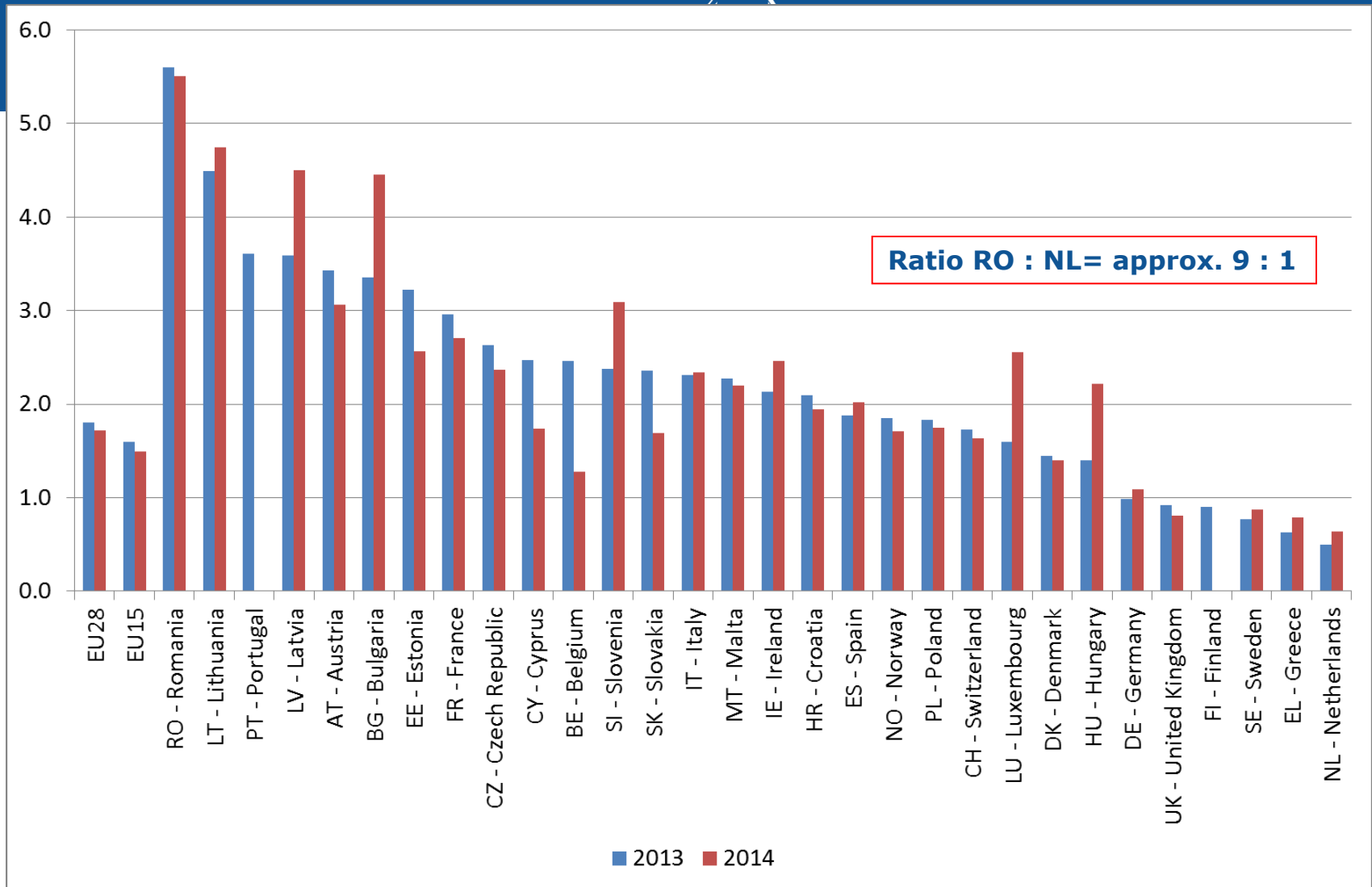


Figure: Incidence rates of fatal work accidents, all economic branches, 2013 - 14 (accidents per 100,000 employed persons)

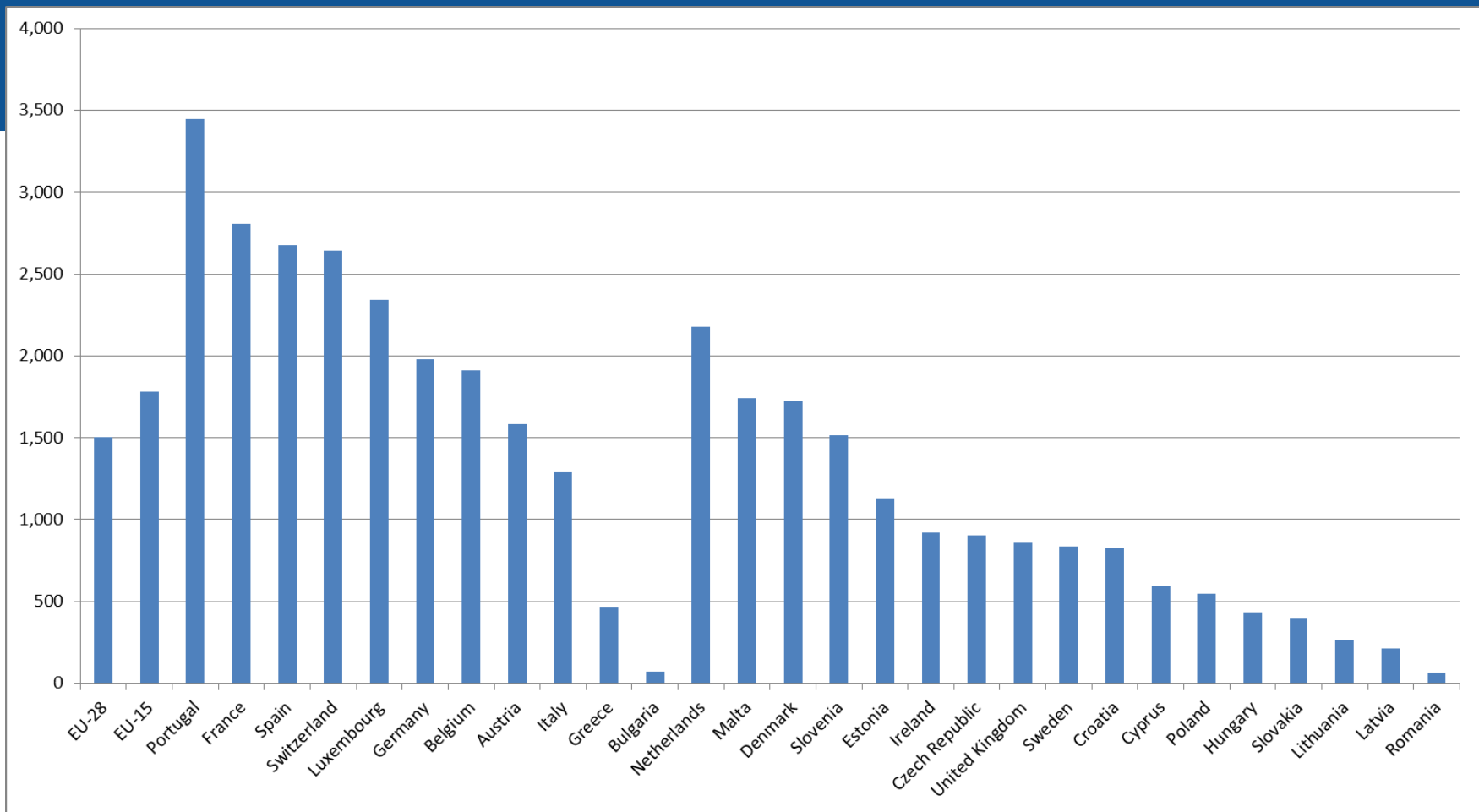


Figure: Standardised incidence rates of non-fatal accidents at work (>3 days lost) for common economic branches of NACE Rev. 2 A, C – N, excluding road traffic accidents and accidents on board of any mean of transport, and for employees only, by country and notification system, 2013 (accidents per 100.000 employees)

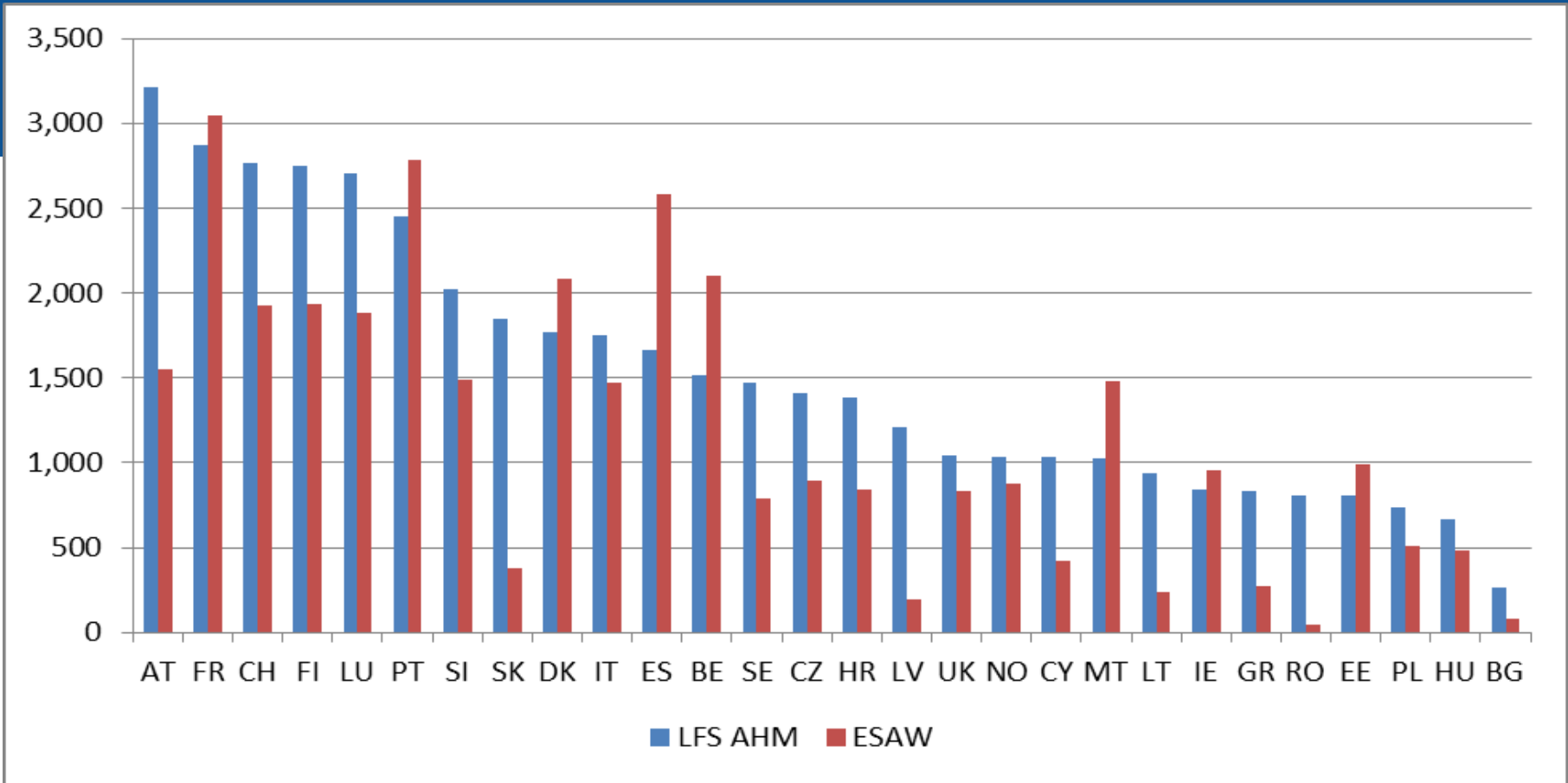


Figure: Comparison of (i) 2013 ESAW incidence rates of non-fatal accidents at work (>3 days lost) for all NACE sectors (A – U/UN) and employed persons and (ii) LFS AHM 2013 'incidence rates' of persons who had at least one accident (with a period of at least four days off or expects never to work again, persons with two accidents or more are counted double), sorted by LFS AHM data (per 100.000 employed persons)

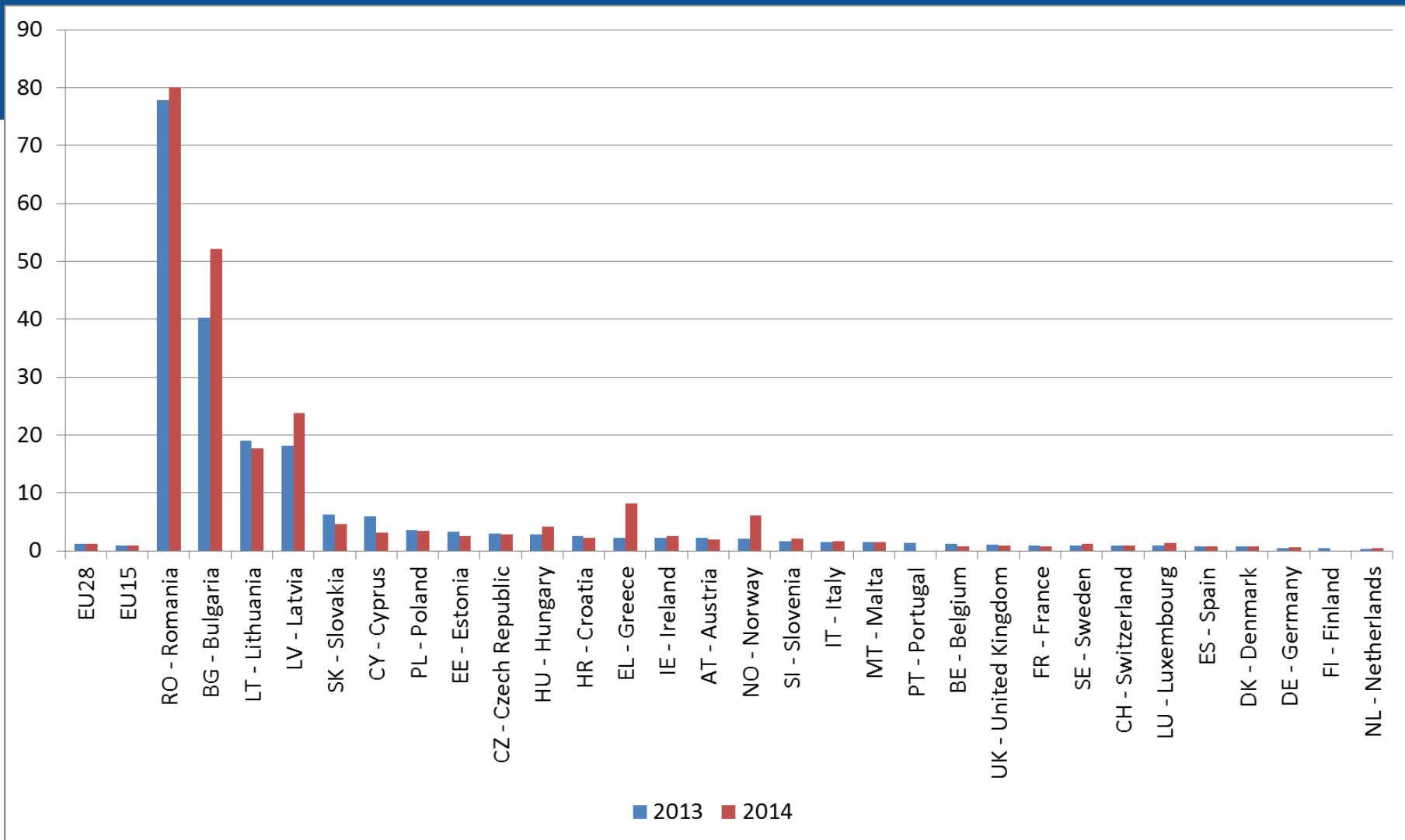


Figure: Number of fatal accidents per 1,000 non-fatal accidents (>3 days lost) for NACE Rev. 2 common branches A - U/UNK, 2013 (accidents per 100 000 employed persons)

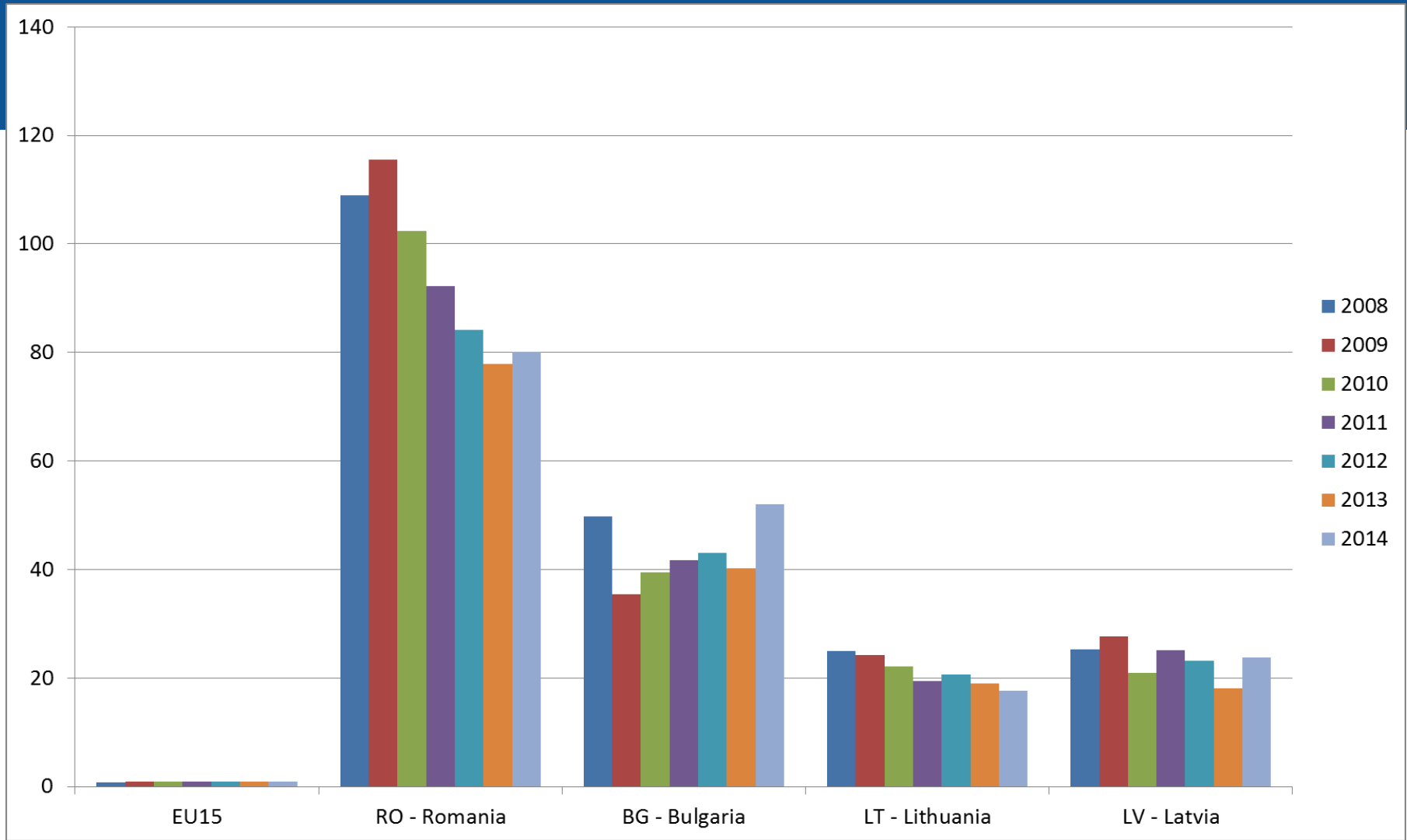


Figure: Number of fatal accidents per 1,000 non-fatal accidents (>3 days lost) in EU-15 and selected EU countries (1st group) for all NACE Rev. 2 branches A – U/UNK, 2008 - 14 (accidents per 100 000 employed persons)

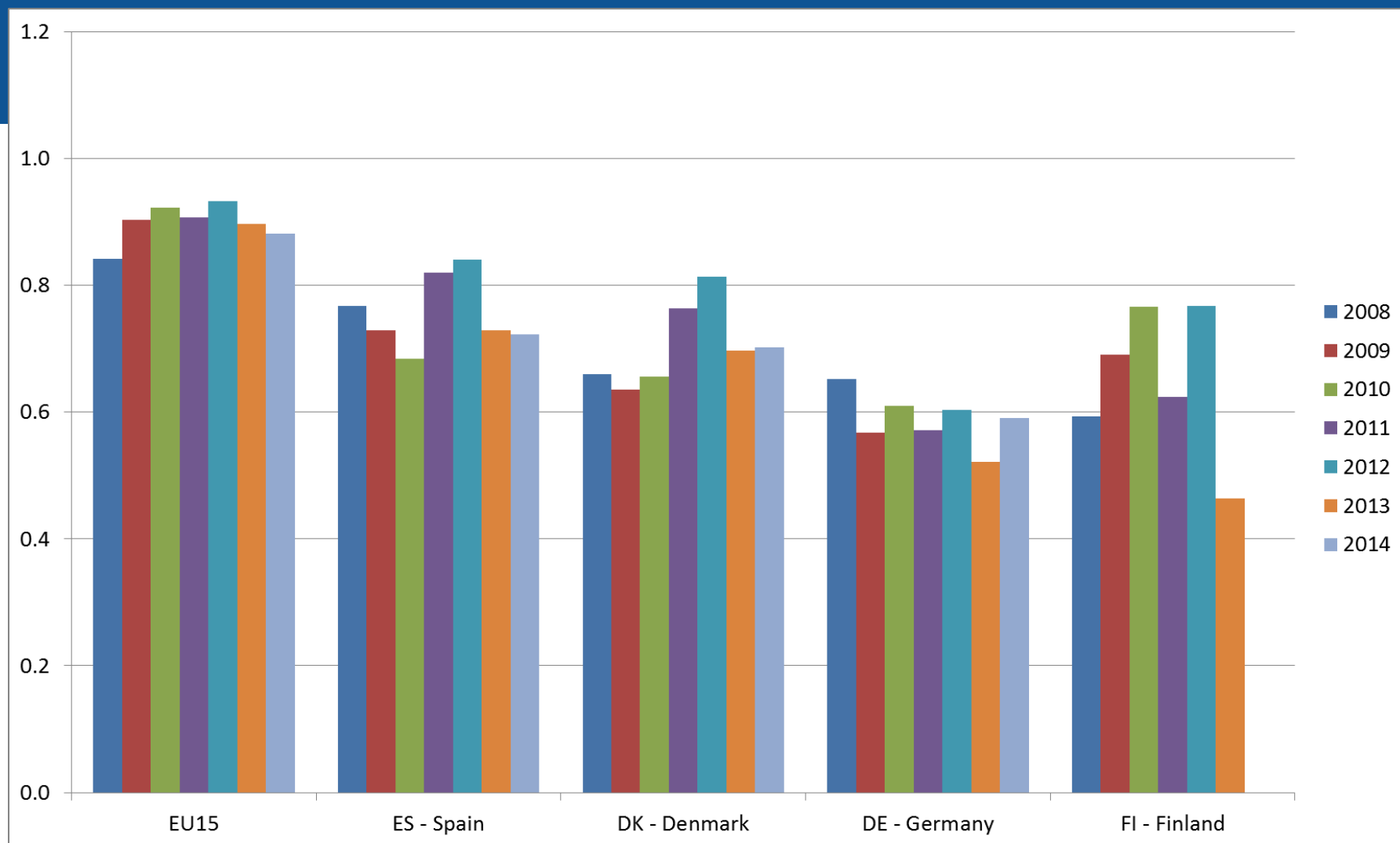


Figure: Number of fatal accidents per 1,000 non-fatal accidents (>3 days lost) in EU-15 and selected EU countries (2nd group) for all NACE Rev. 2 branches A – U/UNK, 2008 - 14 (accidents per 100 000 employed persons)

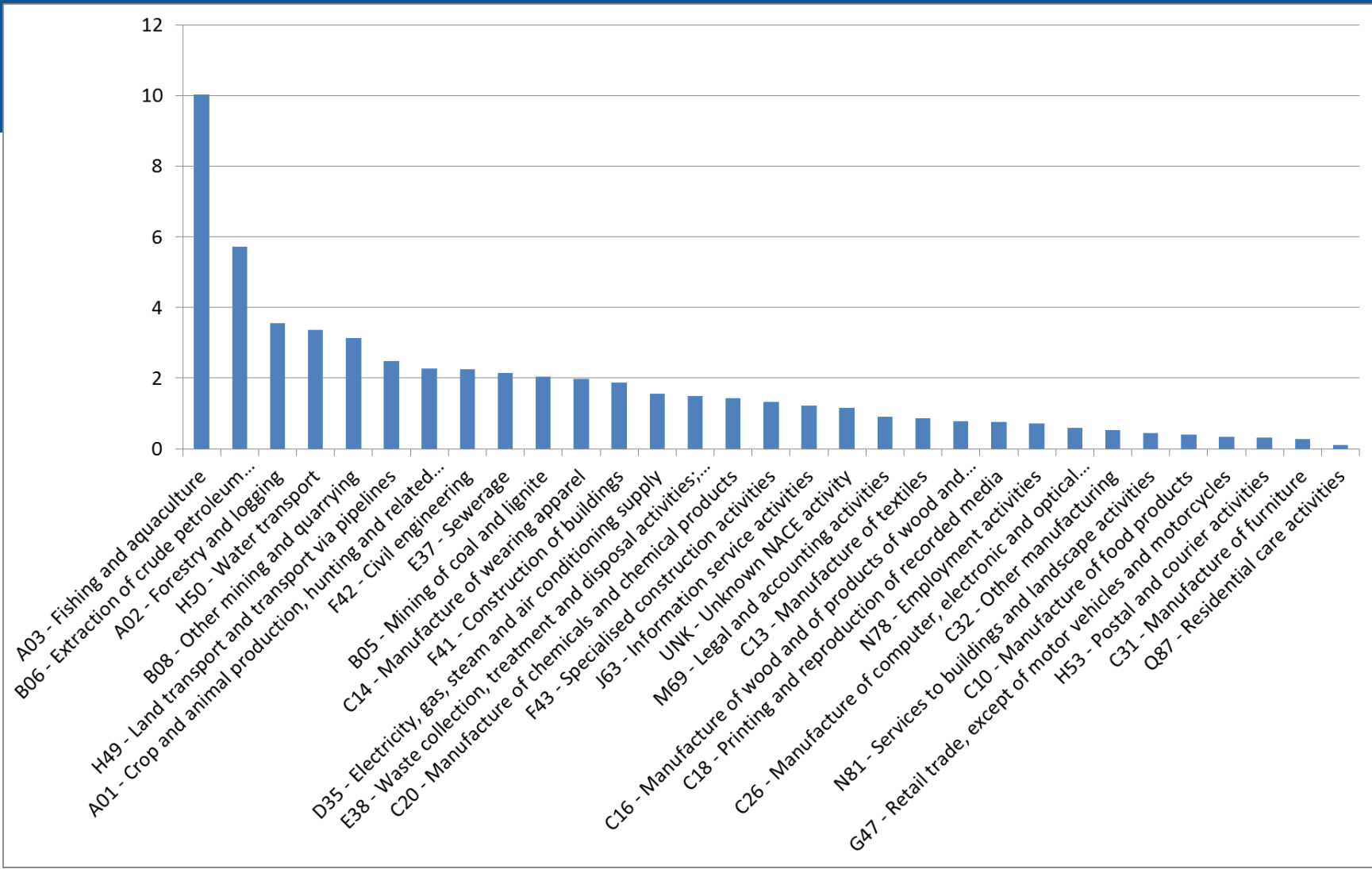


Figure: Number of fatal accidents per 1,000 non-fatal accidents (>3 days lost) for selected NACE Rev. 2 divisions in EU-15, 2014 (ratio)

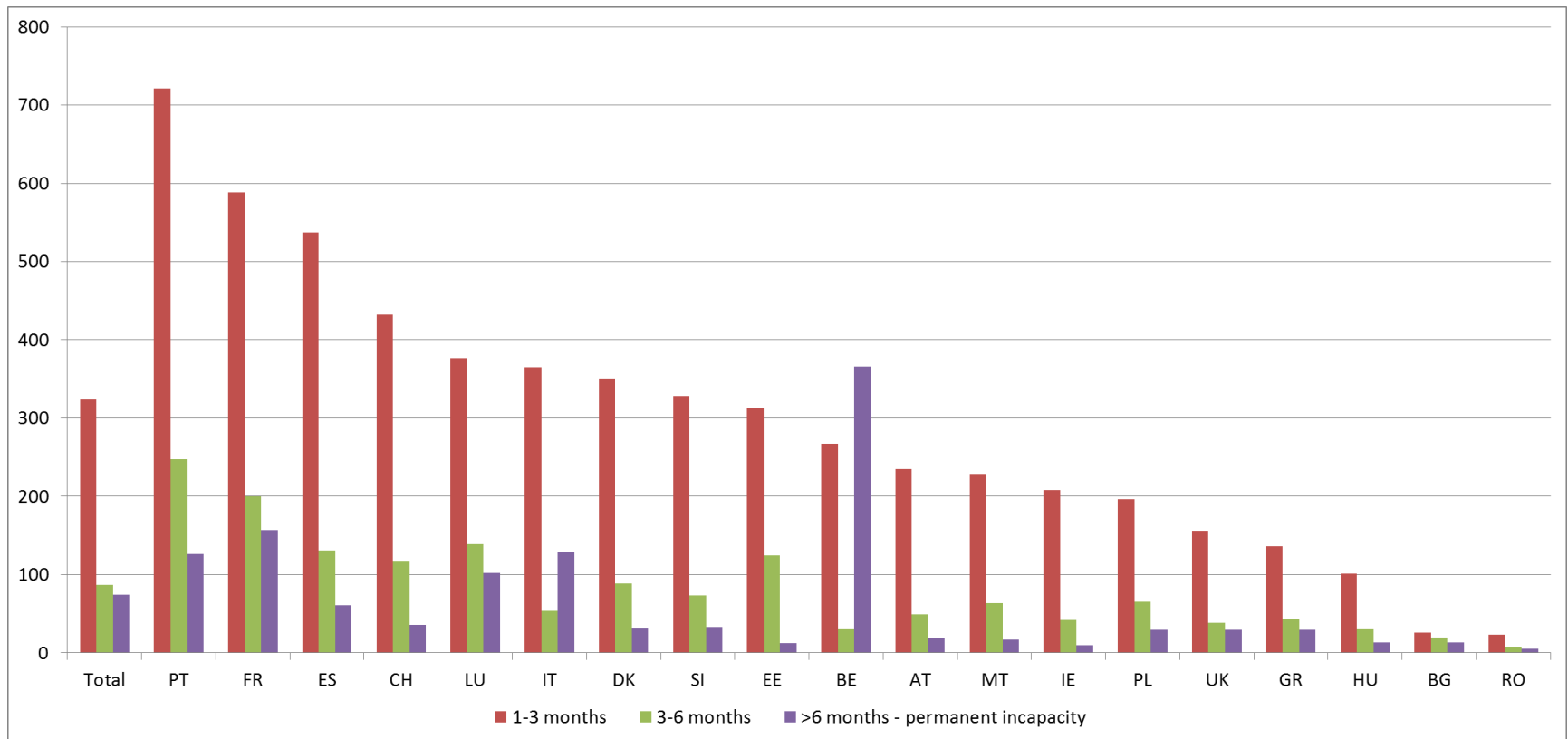


Figure: Incidence rates of 3 highest severity classes (days lost due to an accident) for employees and NACE A – S only, for countries with detailed severity data, 2013 (accidents per 100,000 employees)

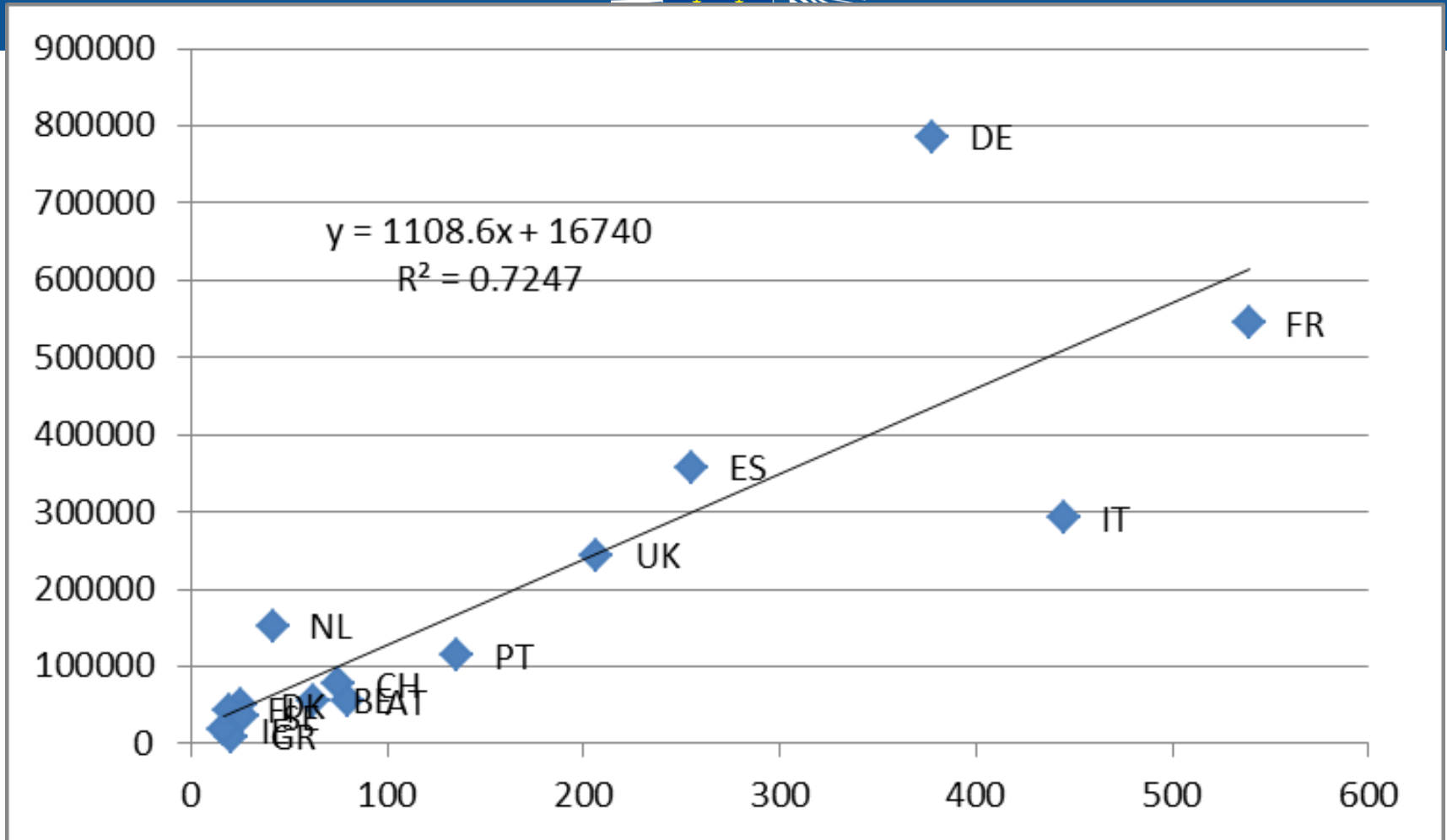
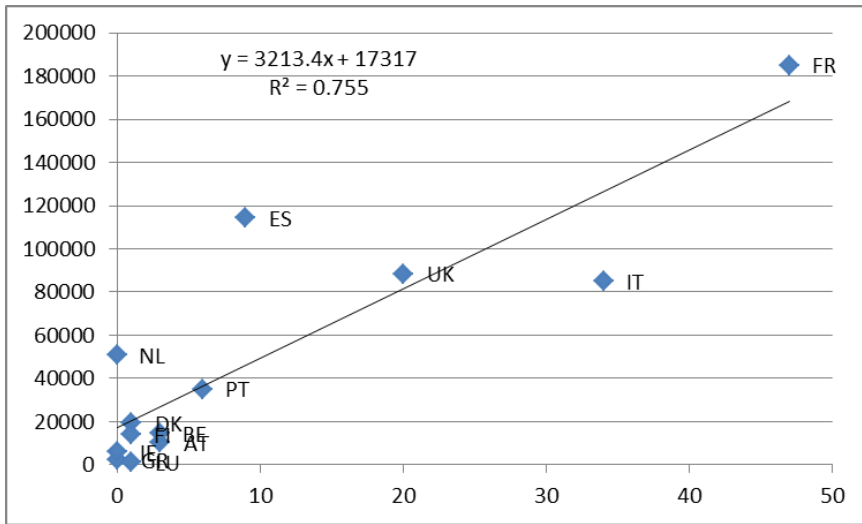
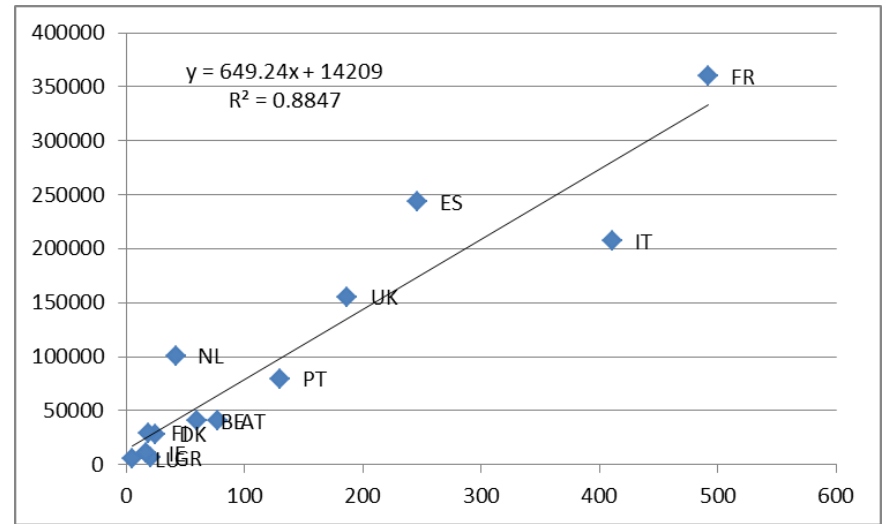


Figure: Scatter plot of non-fatal (y-axis) per fatal (x-axis) accidents for all ISCO groups 1 – 9 and NACE Rev. 2 sectors A – U in EU-15 countries except LU, incl. CH, 2013 16

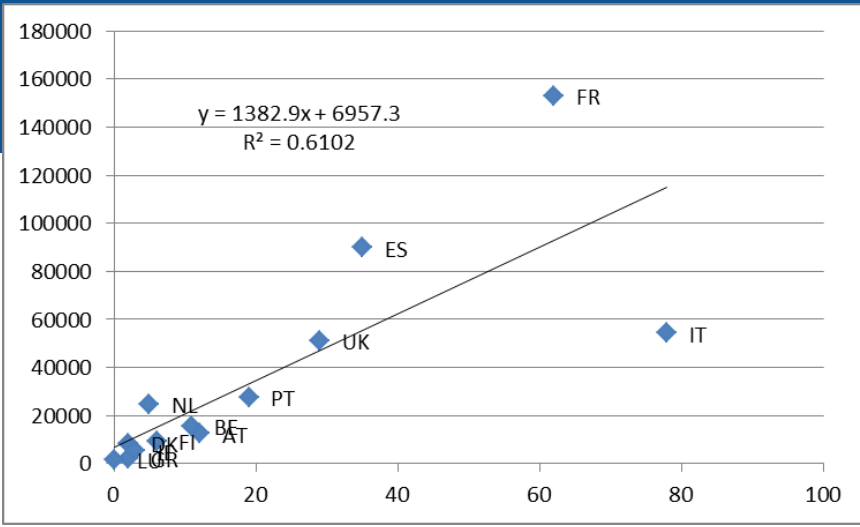


Females

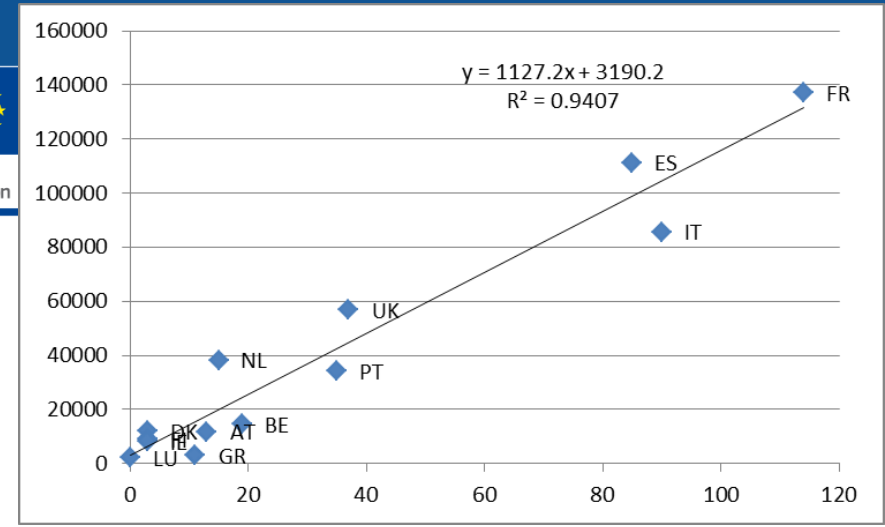


Males

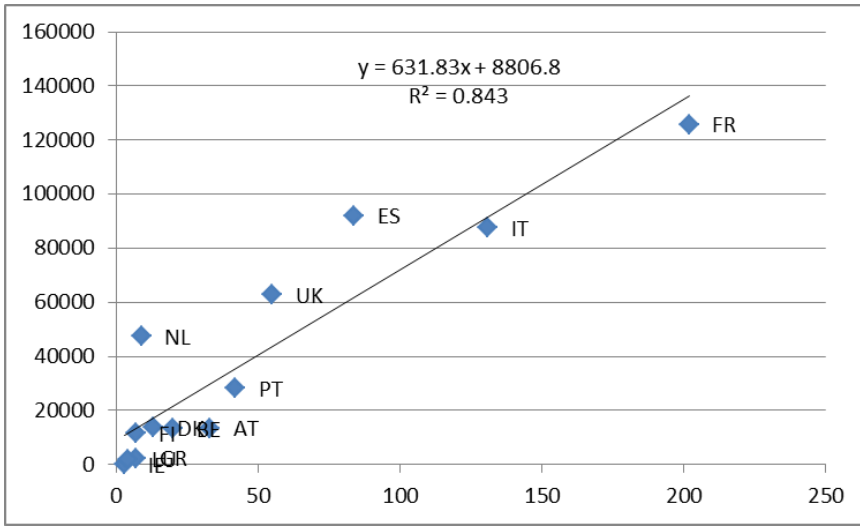
Figure: Scatter plots of non-fatal (y-axis) per fatal (x-axis) accidents for selected age groups in EU-15 countries except LU, 2013



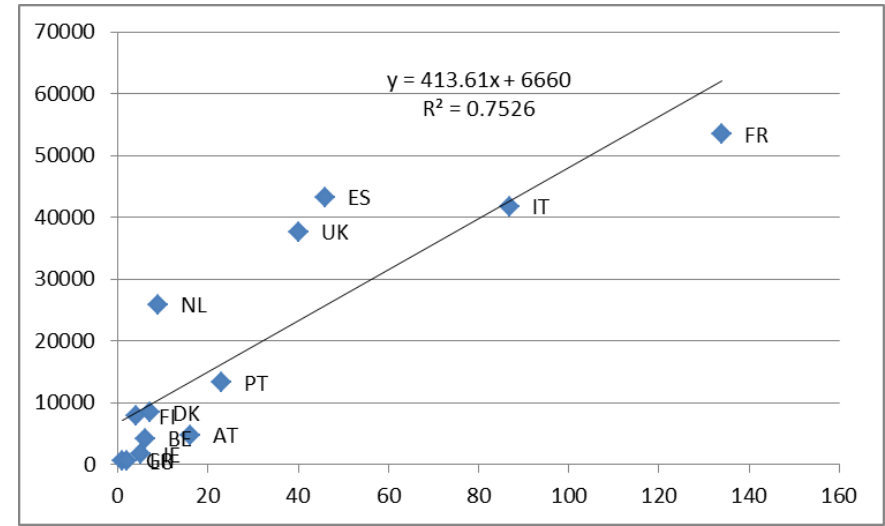
25 – 34 years



35 – 44 years old

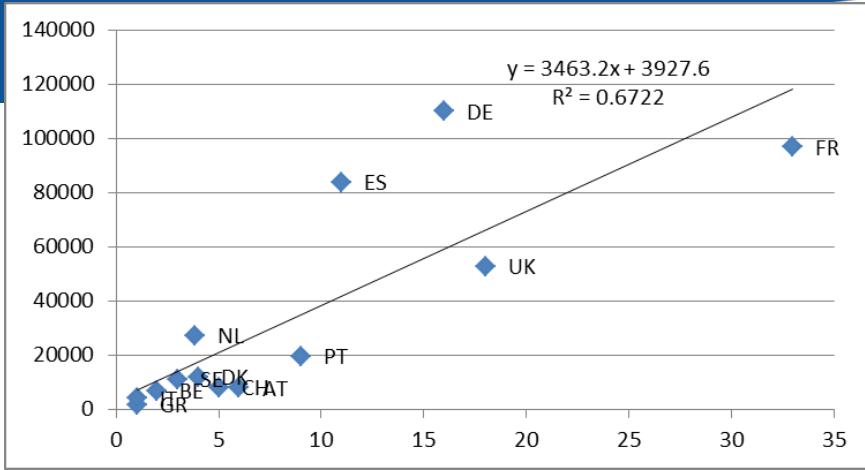


45 – 54 years old

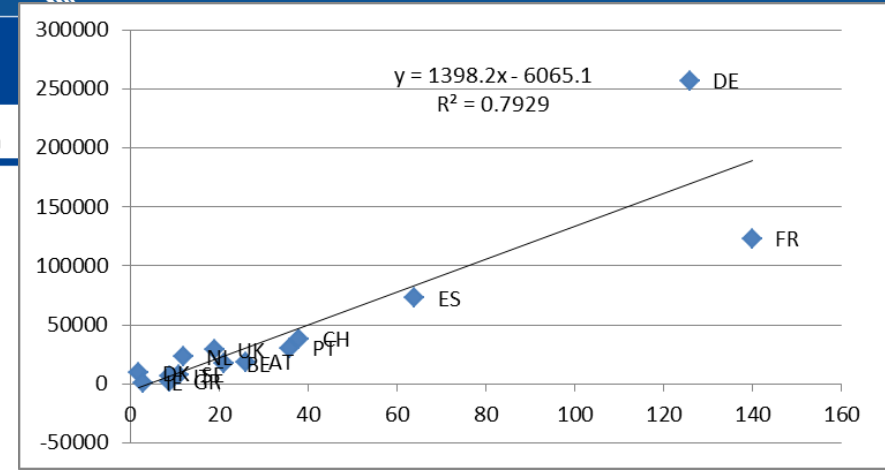


55 – 64 years old

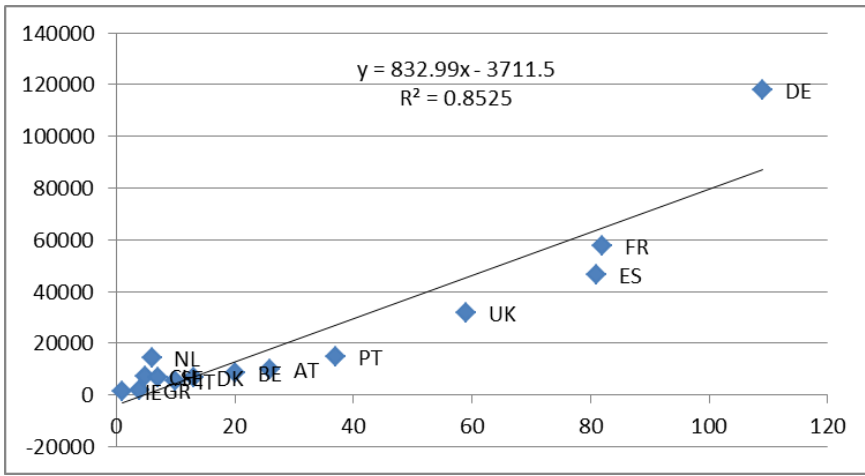
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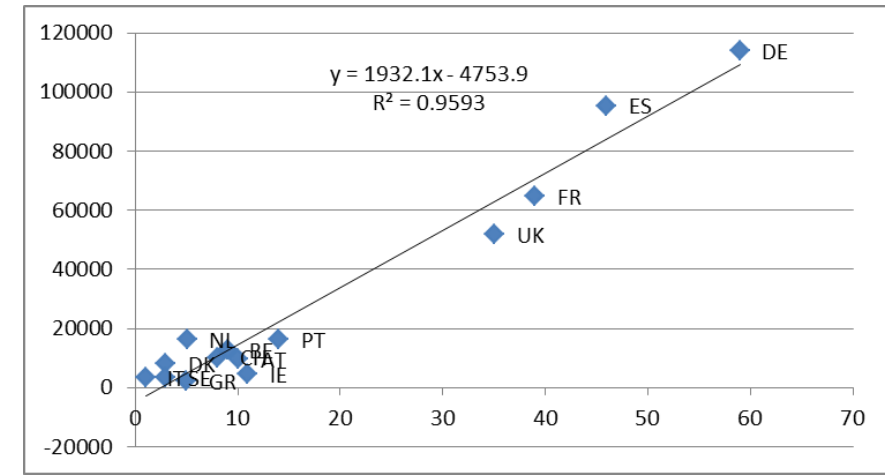
5 - Service and sales workers



7 - Craft and related trades workers

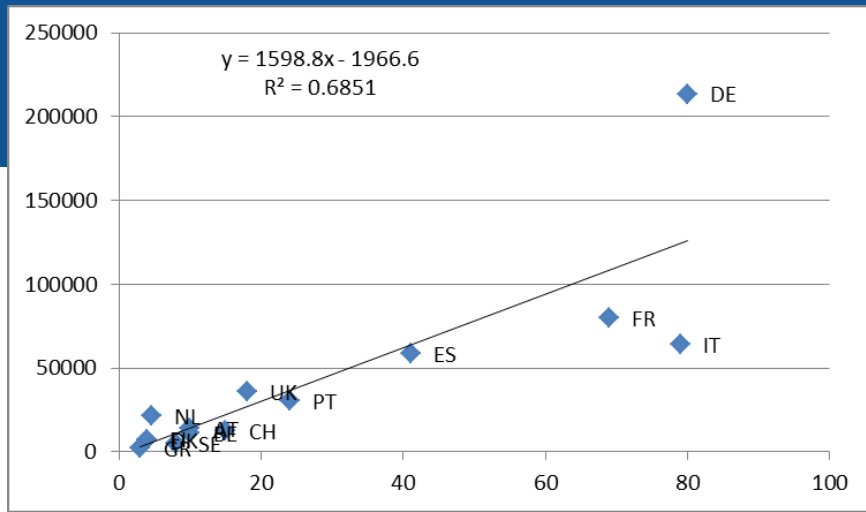


8 - Plant and machine operators, and assemblers

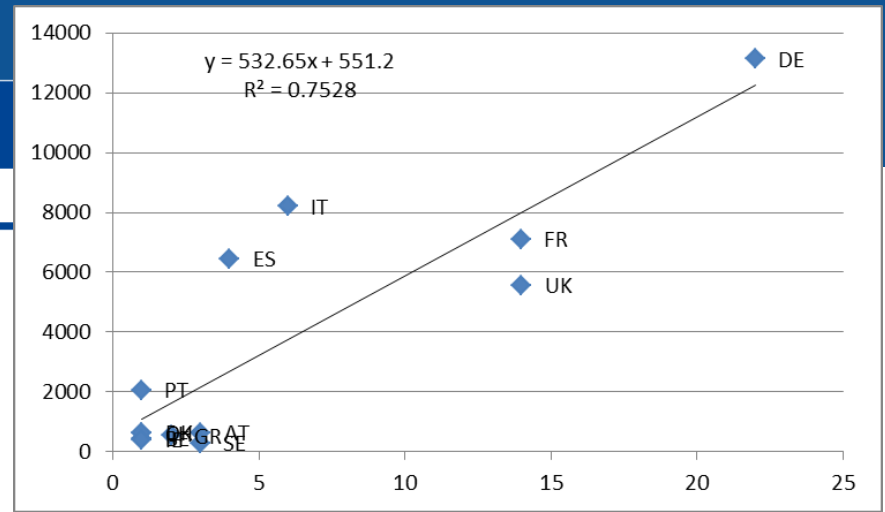


9 - Elementary occupations

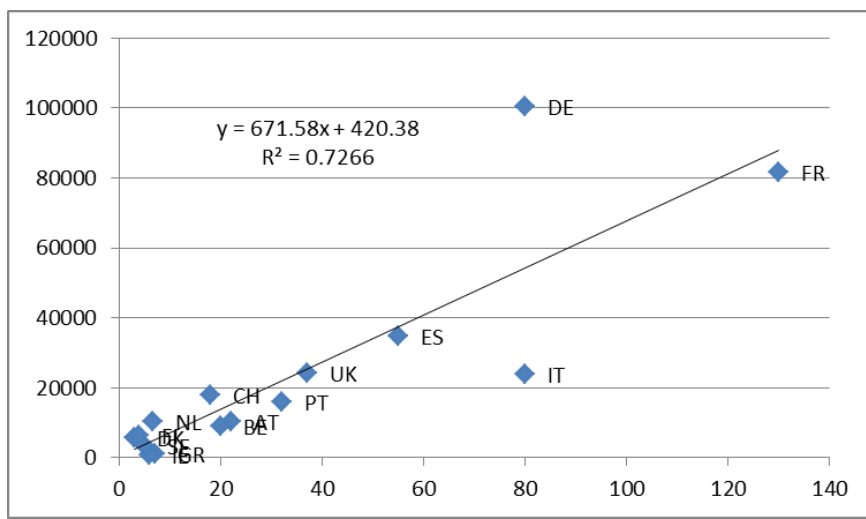
Figure: Scatter plots of non-fatal (y-axis) per fatal (x-axis) accidents for employees and ISCO groups 5, 7, 8 and 9 in EU-15 countries except LU, incl. CH, 2013



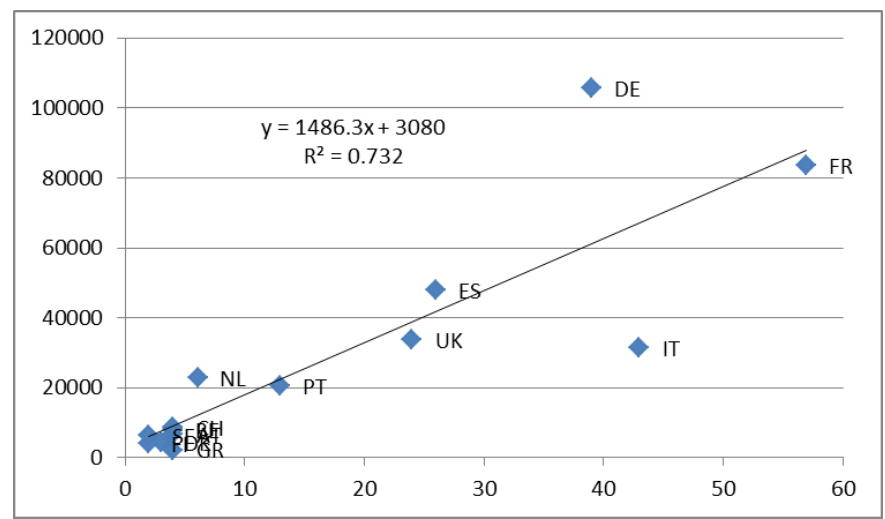
C - Manufacturing



E - Water supply; sewerage, waste management and remediation activities

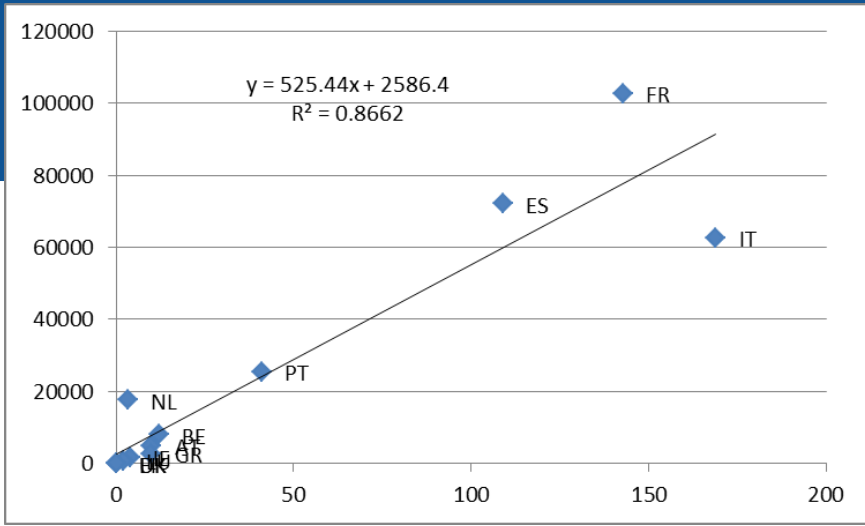


F - Construction

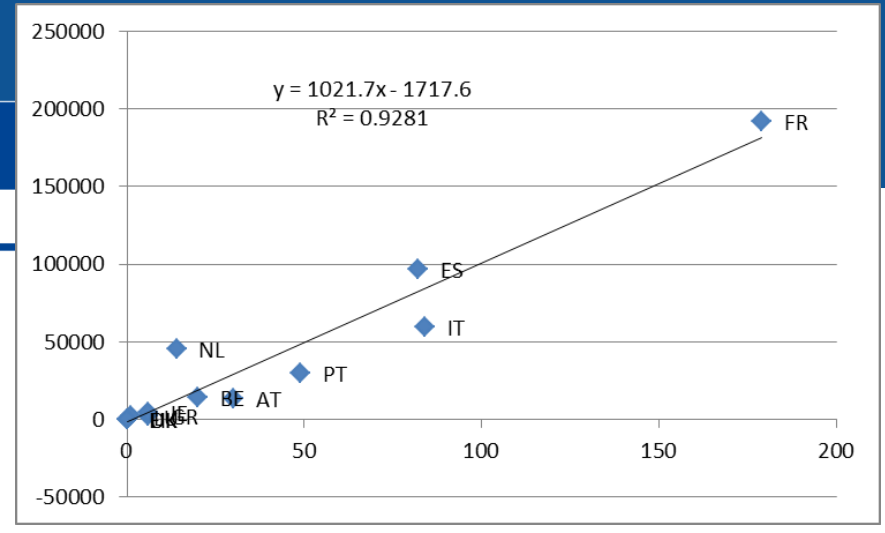


G - Wholesale and retail trade; repair of motor vehicles and motorcycles

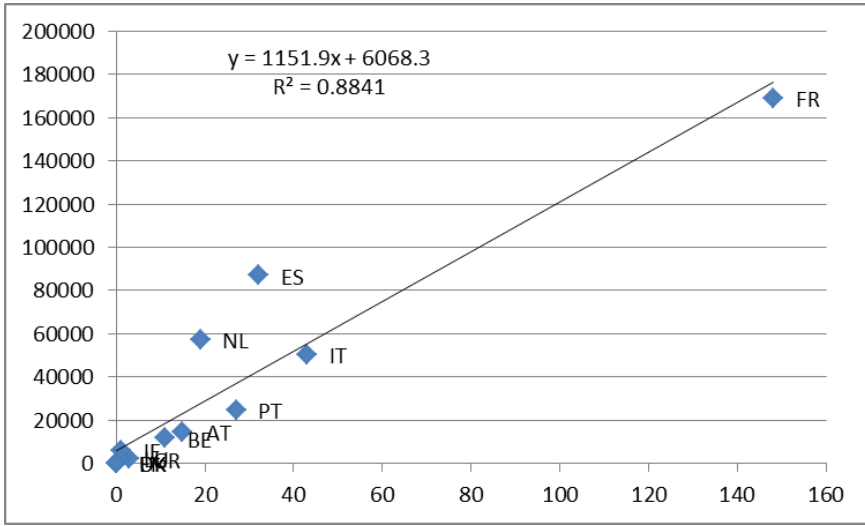
Figure: Scatter plots of non-fatal (y-axis) per fatal (x-axis) accidents for NACE Rev. 2 sectors C, E, F and G in EU-15 countries except LU, incl. CH, 2013



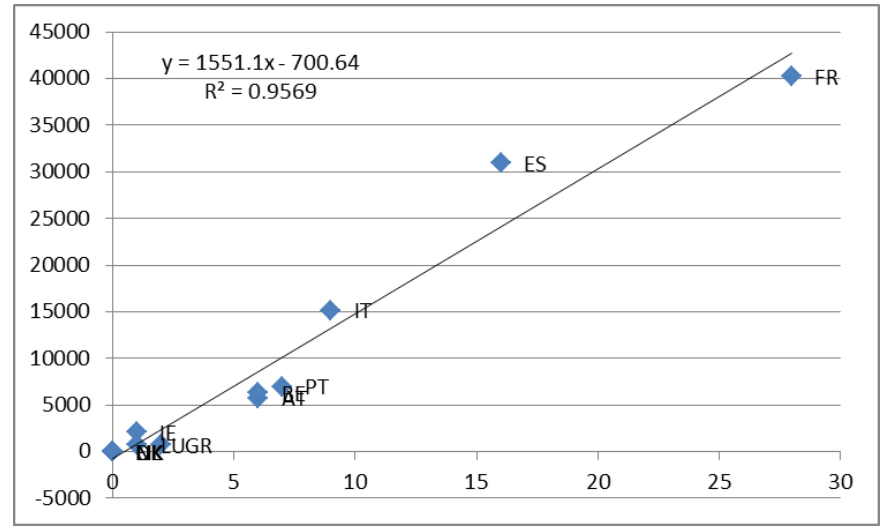
1 – 9 employees



10 – 49 employees



50 – 249 employees



250 – 499 employees

Figure: Scatter plots of non-fatal (y-axis) per fatal (x-axis) accidents for different enterprise size classes in EU-15 countries except LU, 2013

Conclusions

- Under-reporting remains an important quality issue for ESAW data for some countries.
- All countries that joined the EU after 2004 (except Malta, Slovenia and to a lesser degree Estonia) show significant lower incidence rates and higher ratios of fatal to non-fatal accidents. Most of them have also lower incidence rates in the Labour Force Survey Ad-hoc Module.
- Visual and basic quantitative correlation analysis shows strong correlation between fatal and non-fatal accidents across EU-15 countries, with meaningful trends for gender, age, ISCO, NACE and enterprise size.
- Further analysis is necessary to identify reasons and the extent to which these reasons influence under-reporting.

Any question?

matthias.fritz@ec.europa.eu