



Diversity in Collaborations

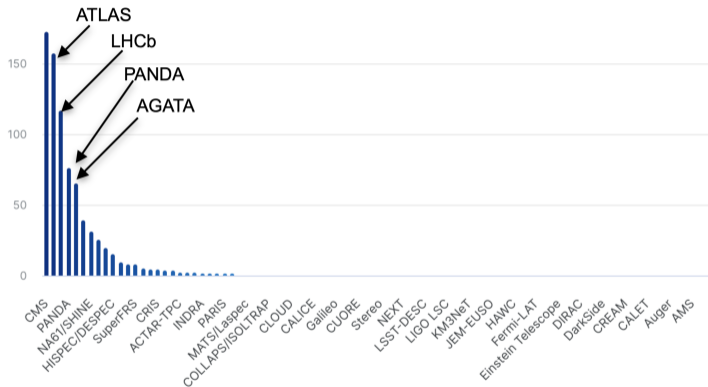
Diversity Working Group

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APPEC/ECFA/NuPECC

28/03/2022

Overall view (answers per collaboration)

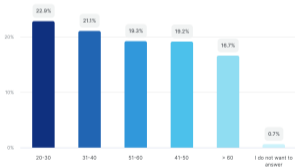


Overall, less than 5% of the collaboration members answered the survey

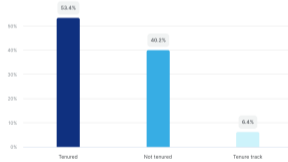
Overall view (II)

Overall distribution of the number of answers per age/career level/gender group

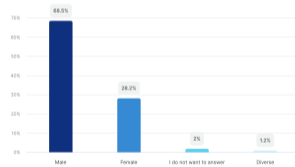
6. Age group



5. Career level



4. Gender



Comments

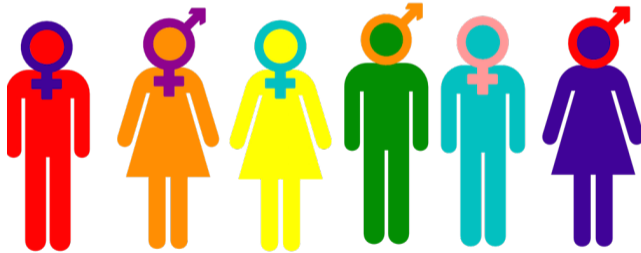
In all the following plots, when indicated, the fractions are calculated per category. Examples:

- For each gender category calculated the fraction of members with without managerial role, with L0 management position, with L1 position, ...
 - So, gender fractions are directly comparable for each management role
- For each country (or group of countries), calculated the fraction of collaboration members without managerial role, with L0/L1 or L2 management position.
 - So, country of origin (or country of work) fractions are directly comparable for each management role
- Included some plots with absolute number of answers to give an idea of the total statistics available

Categories

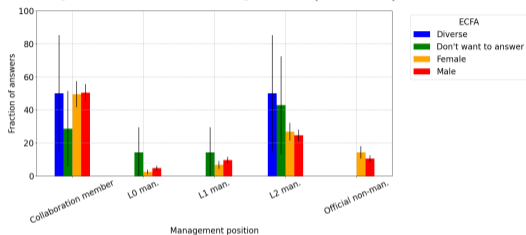
- ECFA: joins mainly the following ATLAS, CMS, LHCb, NA61/SHINE
- NuPECC: joins mainly AEGIS, AGATA, ALICE, GANIL, HADES, HISPEC/DESPEC, IDS, IDIMA, ISOLDE, NUSTAR, nTOF, R3B, ...

Gender

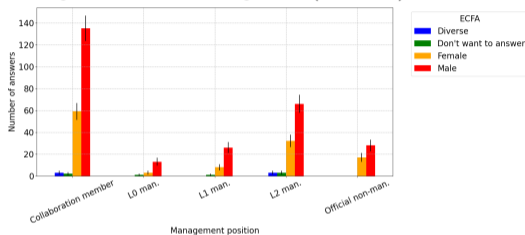


ECFA gender diversity overview

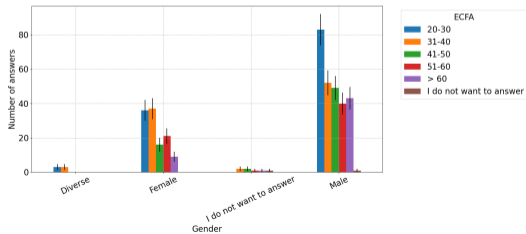
Management role versus gender (fraction)



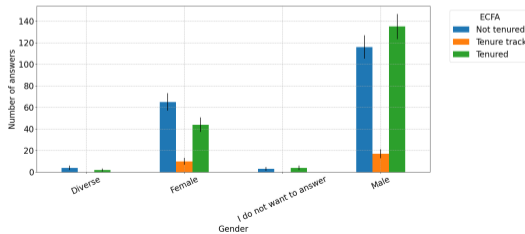
Management role versus gender (absolute)



Age vs gender (absolute number)

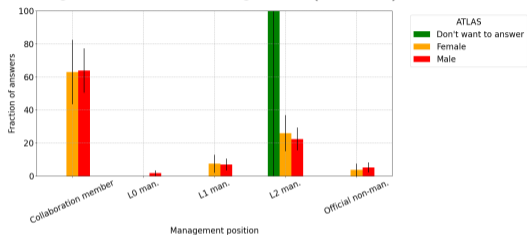


Tenure vs gender (absolute number)

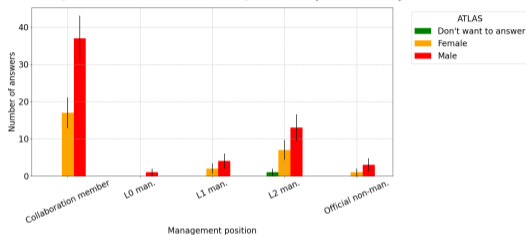


ATLAS gender diversity overview

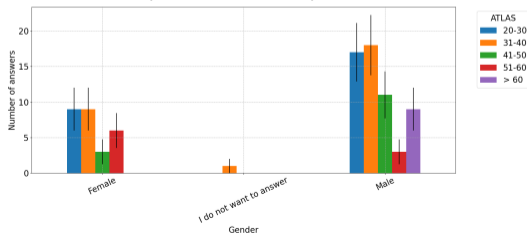
Management role versus gender (fraction)



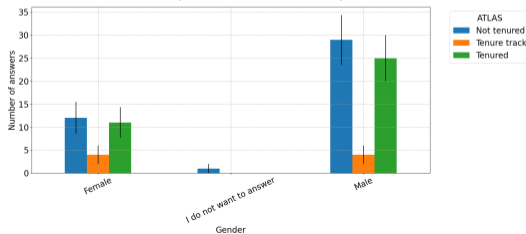
Management role versus gender (absolute)



Age vs gender (absolute number)

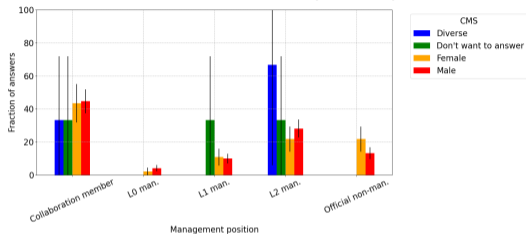


Tenure vs gender (absolute number)

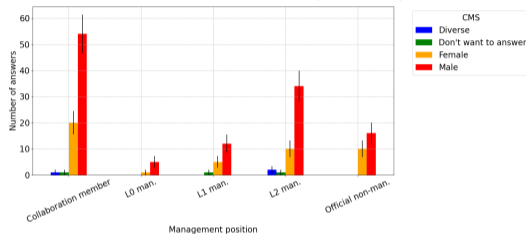


CMS gender diversity overview

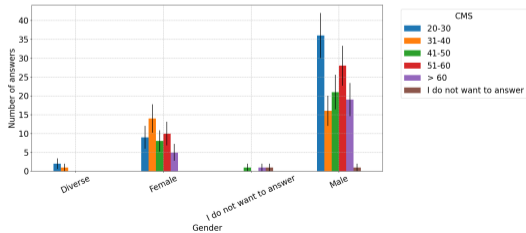
Management role versus gender (fraction)



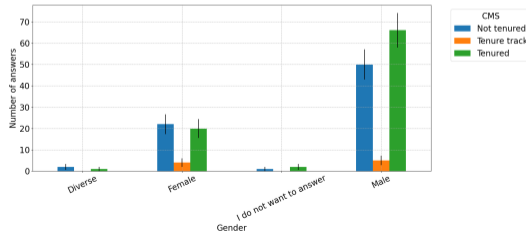
Management role versus gender (absolute)



Age vs gender (absolute number)

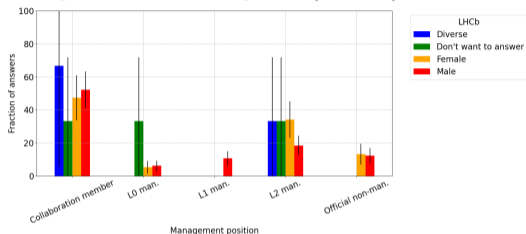


Tenure vs gender (absolute number)

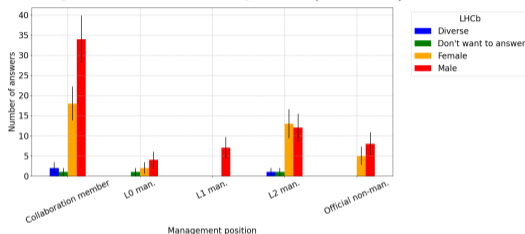


LHCb gender diversity overview

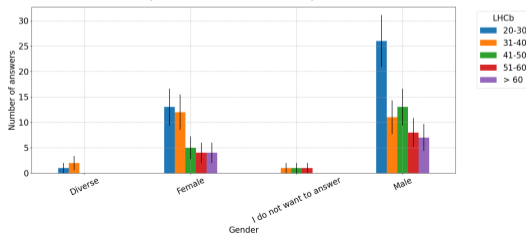
Management role versus gender (fraction)



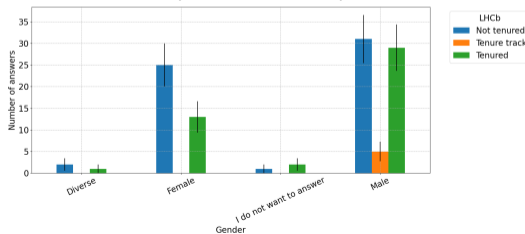
Management role versus gender (absolute)



Age vs gender (absolute number)

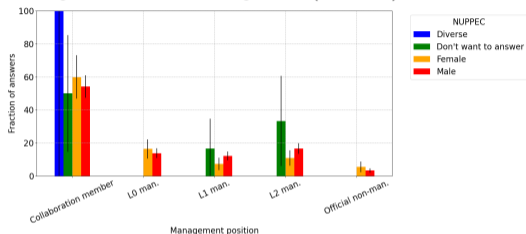


Tenure vs gender (absolute number)

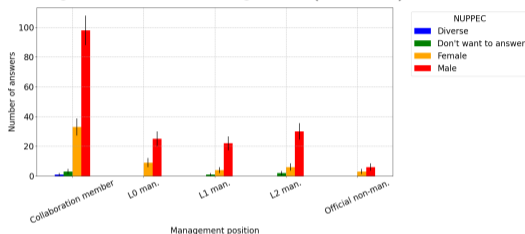


NuPECC gender diversity overview

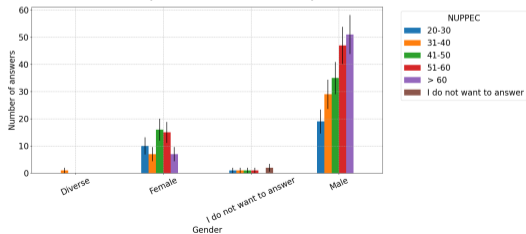
Management role versus gender (fraction)



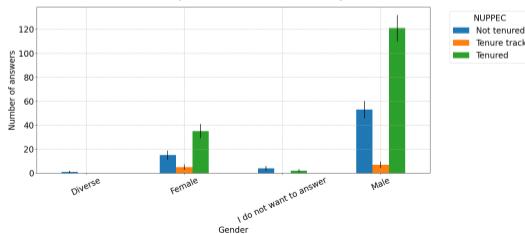
Management role versus gender (absolute)



Age vs gender (absolute number)

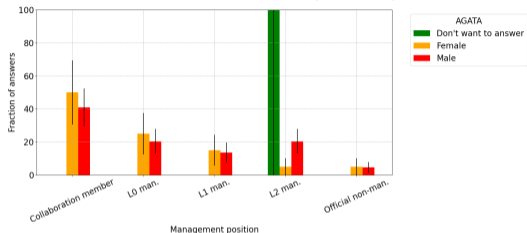


Tenure vs gender (absolute number)

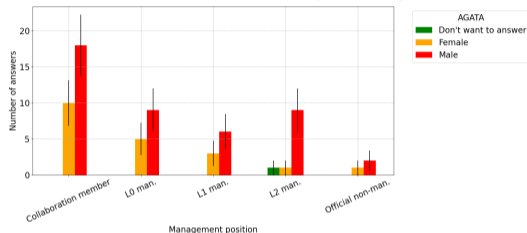


AGATA gender diversity overview

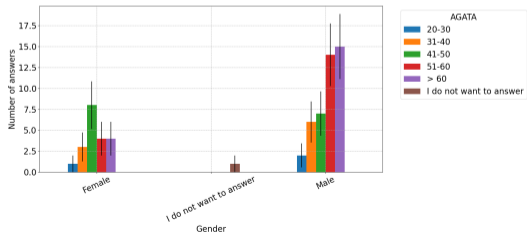
Management role versus gender (fraction)



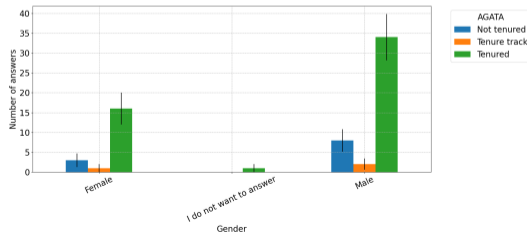
Management role versus gender (absolute)



Age vs gender (absolute number)

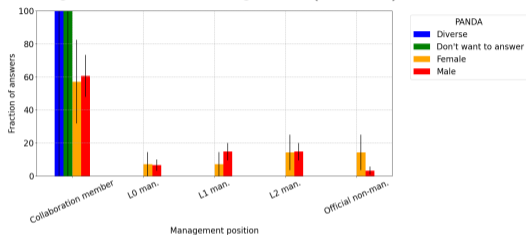


Tenure vs gender (absolute number)

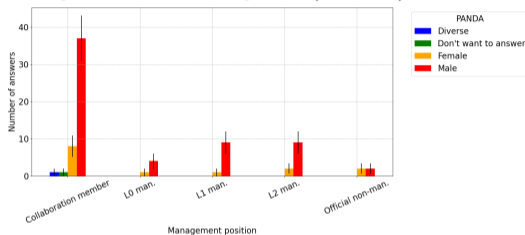


PANDA gender diversity overview

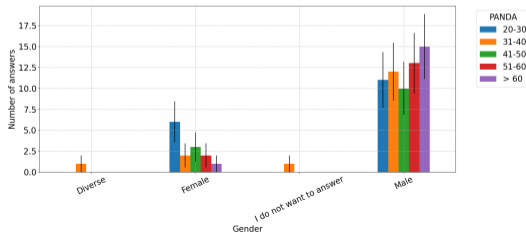
Management role versus gender (fraction)



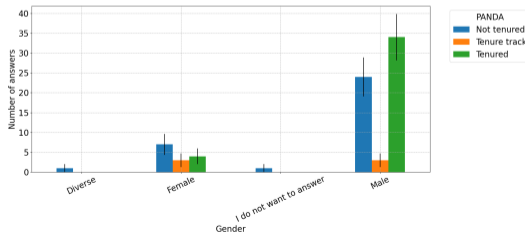
Management role versus gender (absolute)



Age vs gender (absolute number)



Tenure vs gender (absolute number)



Country of origin



Grouping of countries

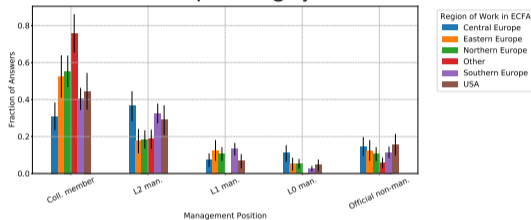
To ensure anonymity and ensure sufficient statistics countries have been grouped:

- CERN: special case, needs to be separated (high statistics, avoid biases in Switzerland)
(Only for country of work)
- Northern Europe: Germany, UK, Denmark, Norway, Sweden, Finland, Ireland, ...
- Central Europe: France, Belgium, Netherlands, Switzerland, Austria, ...
- Eastern Europe: Poland, Czech Republic, Hungary, Slovakia, Romania, ...
- Southern Europe: Spain, Portugal, Italy, Greece, Croatia, Serbia, Slovenia, ...
- USA
- Other: China, Japan, Israel, South Africa, Turkey, Taiwan, Thailand, Costa Rica, ...

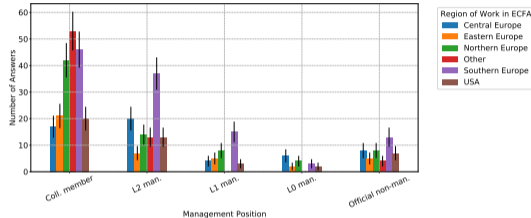
Same division used for ECFA and NuPECC

ECFA country of origin versus management position

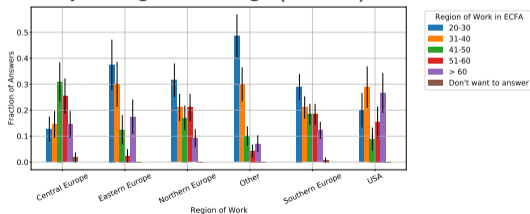
Fraction of answers per category



Absolute number of entries



Country of origin versus age (fraction)

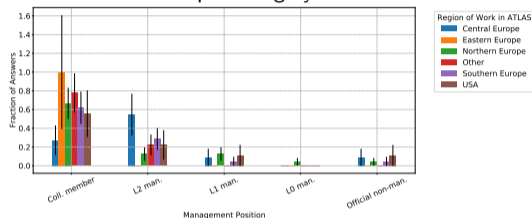


Apparent imbalance in country of origin: northern Europe, Eastern Europe and "others" have smaller fraction of coordination positions

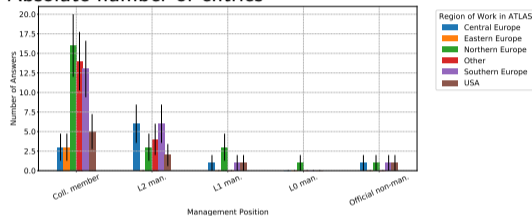
- But most answers in those countries came from younger collaboration members!
- Very different pattern with respect to other countries
- Not sufficient statistics for to further subdivide categories by age

ATLAS country of origin versus management position

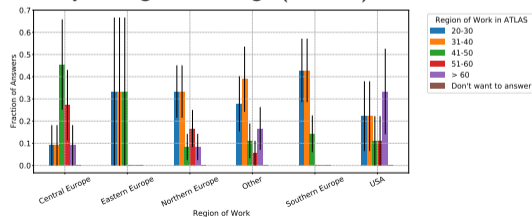
Fraction of answers per category



Absolute number of entries

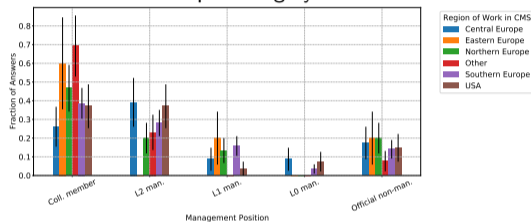


Country of origin versus age (fraction)

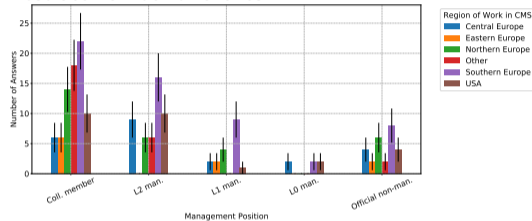


CMS country of origin versus management position

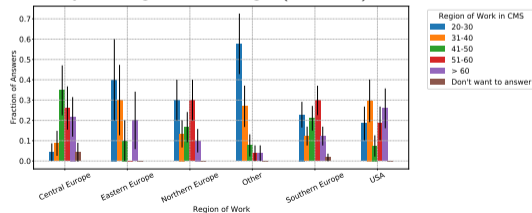
Fraction of answers per category



Absolute number of entries

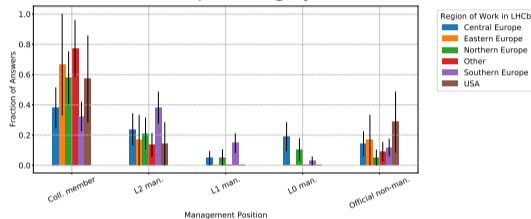


Country of origin versus age (fraction)

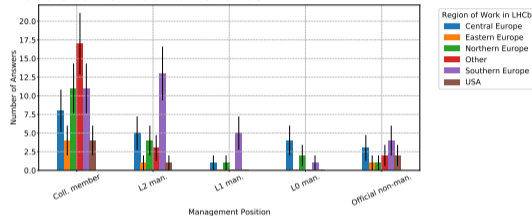


LHCb country of origin versus management position

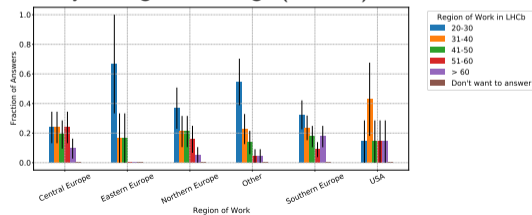
Fraction of answers per category



Absolute number of entries

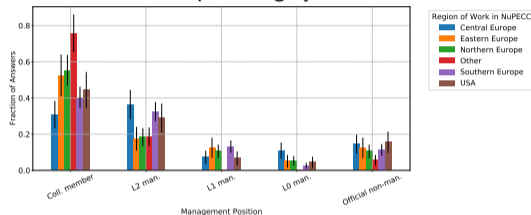


Country of origin versus age (fraction)

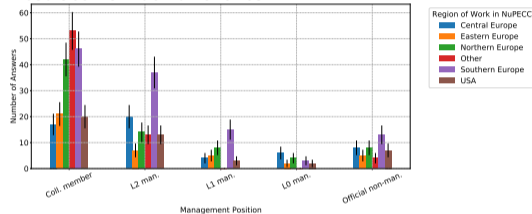


NuPECC country of origin versus management position

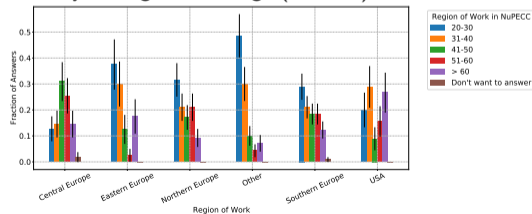
Fraction of answers per category



Absolute number of entries

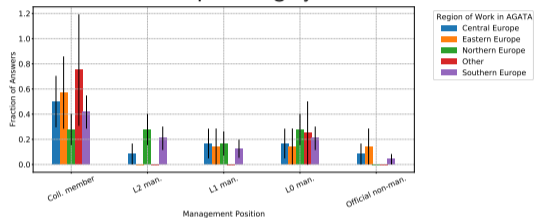


Country of origin versus age (fraction)

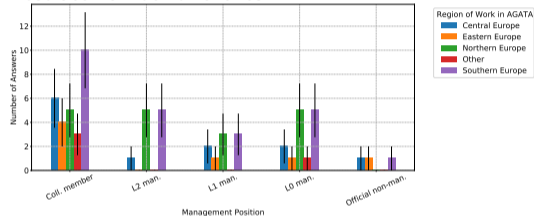


AGATA country of origin versus management position

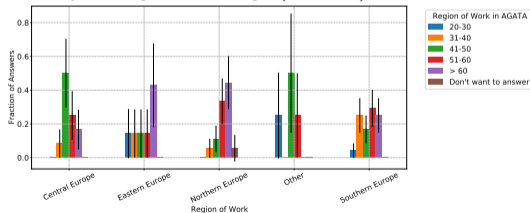
Fraction of answers per category



Absolute number of entries

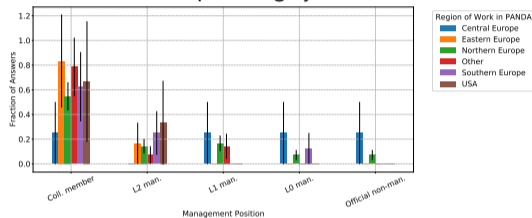


Country of origin versus age (fraction)

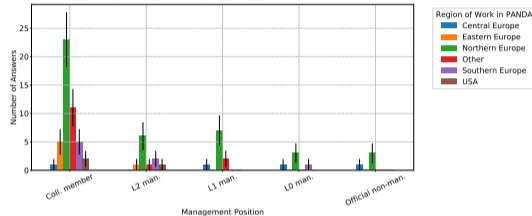


PANDA country of origin versus management position

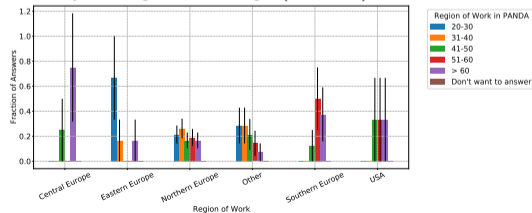
Fraction of answers per category



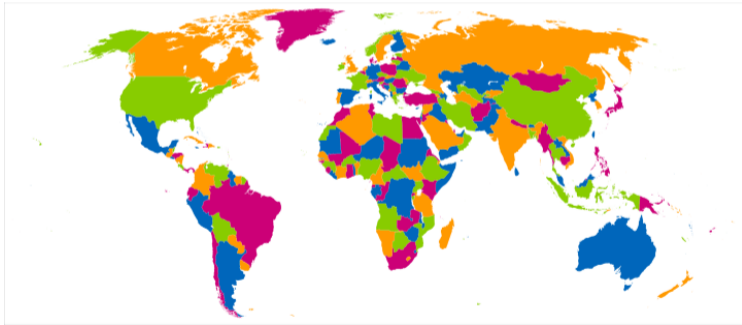
Absolute number of entries



Country of origin versus age (fraction)

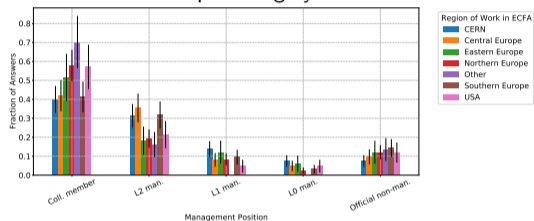


Country of work

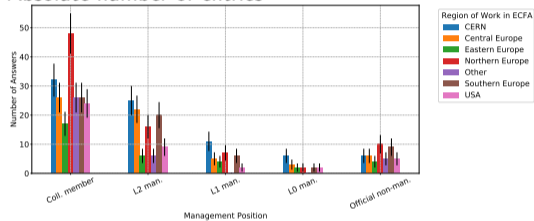


ECFA country of work versus management position

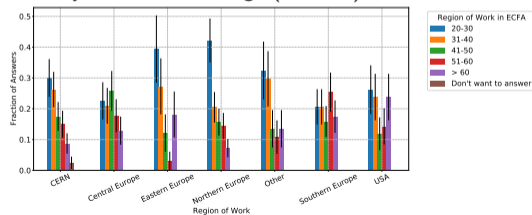
Fraction of answers per category



Absolute number of entries

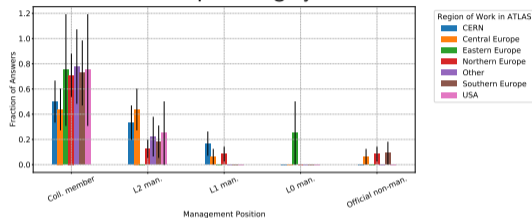


Country of work versus age (fraction)

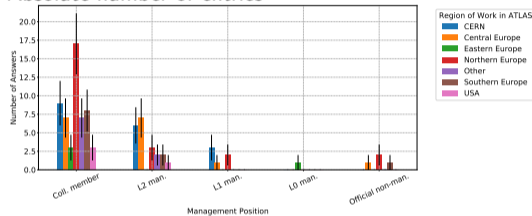


ATLAS country of work versus management position

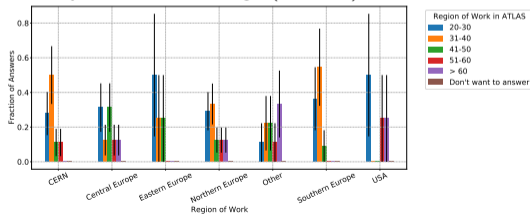
Fraction of answers per category



Absolute number of entries

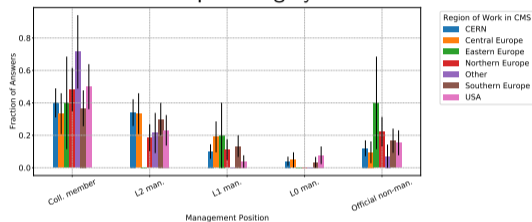


Country of work versus age (fraction)

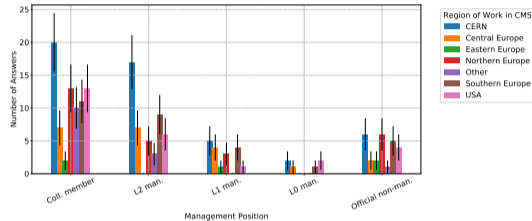


CMS country of work versus management position

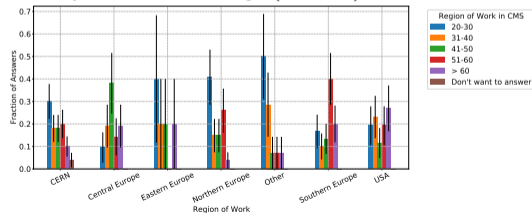
Fraction of answers per category



Absolute number of entries

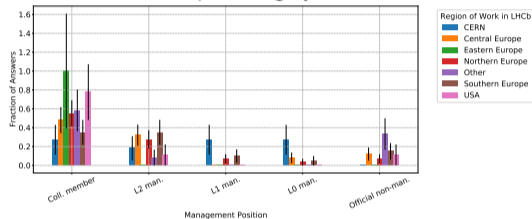


Country of work versus age (fraction)

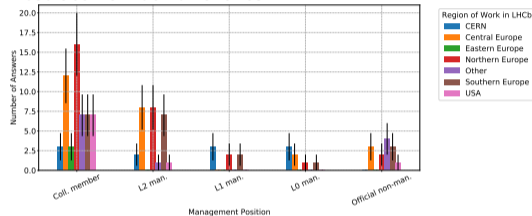


LHCb country of work versus management position

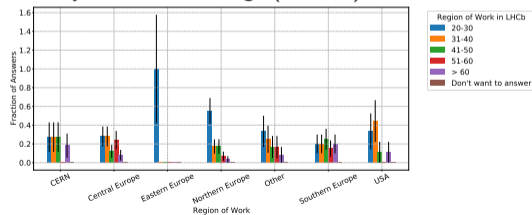
Fraction of answers per category



Absolute number of entries

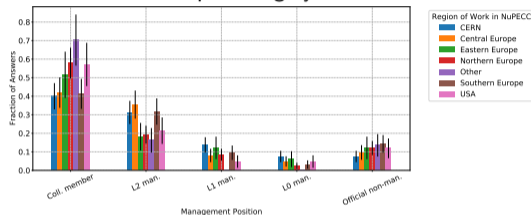


Country of work versus age (fraction)

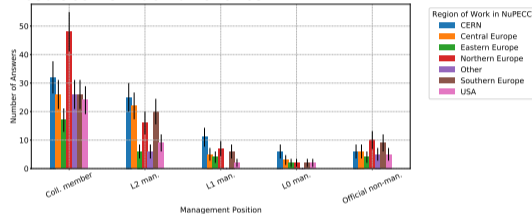


NuPECC country of work versus management position

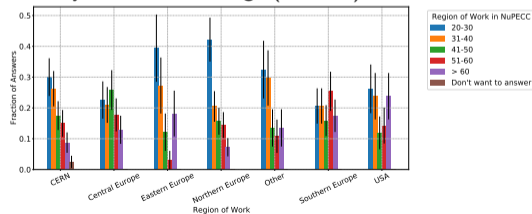
Fraction of answers per category



Absolute number of entries

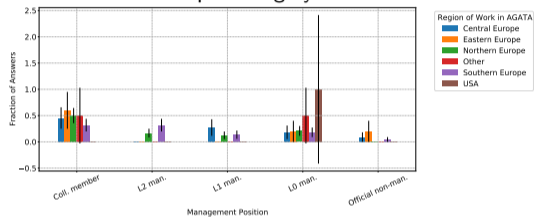


Country of work versus age (fraction)

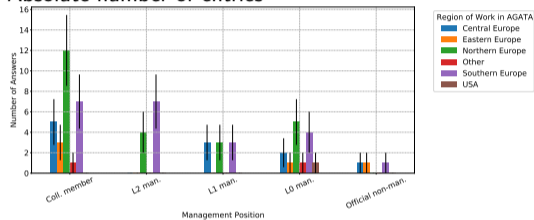


AGATA country of work versus management position

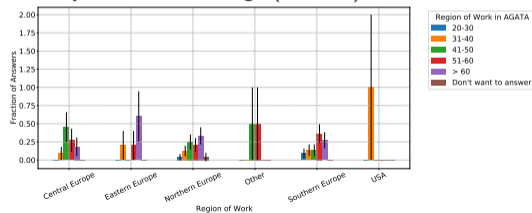
Fraction of answers per category



Absolute number of entries

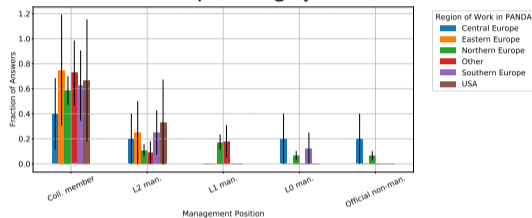


Country of work versus age (fraction)

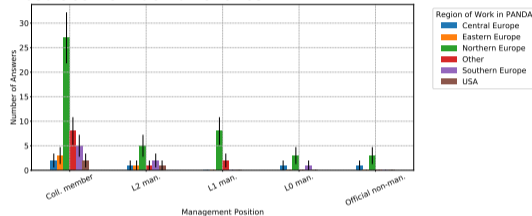


PANDA country of work versus management position

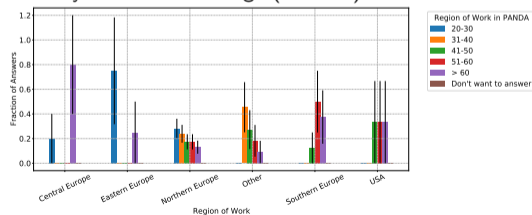
Fraction of answers per category



Absolute number of entries



Country of work versus age (fraction)



Comments received

Mostly negative comments (answers in blue)

- Survey not representative
 - Indeed, only 5% of the collaborations population and in some countries some age groups did not have sufficient representation
 - Probably correlated (or anticorrelated) with the level of interest/concern with the topic
- Should ask questions such as ethnicity, religion, sexual orientation, economic background, ...
 - Yes, probably true, but very difficult to define some of these categories in a general or well accepted way
- Gender versus sex
- This is completely useless
- Some comments about anonymity (the questionnaire is not completely anonymous)
 - As described in the introduction of the survey, the results that will be published have been anonymised by grouping categories such that individuals cannot be identified
- Criticized that the survey was not distributed to collaborations in the US
 - Can be done. Just concentrated in Europe in the first round

Few positive but encouraging comments thanking us for the initiative

Summary and conclusions

- A survey was conducted within large international collaborations in the fields of APPEC/ECFA/NuPECC
- Around 5% of the collaboration members answered
 - In some countries there is a strong bias in the age of the respondents, that suggests that this topic is more of a concern for the younger generation (or the older generation is against this kind of studies)
- Within the statistics collected, the management positions within the collaborations
 - Do not appear to be biased by gender
 - They might be biased with respect to country of origin/work
 - We encourage collaborations to further look into this issue with full statistics (since many of them have the information available in their databases)
- Diversity in collaborations continues to be a very controversial topic, with strong reactions either in favour/against this kind of studies

Acknowledgements

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