

Appendix 3. Profiling of the Target University

As a complement to the OST report, this document presents an analysis of University of Paris based on the following aspects:

- profiling of students;
- profiling of staff;
- scientific production;
- rankings.

This shall provide a global image of the future university, and will help to evaluate its potential.

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Students

Size and disciplinary distribution¹

University of Paris reaches a size comparable to that of University of Toronto², which regroups around 60,000 students and is an example of a relatively large institution that manages to enter in top position within international rankings.

The disciplinary composition reaches a balanced setup, where Health Sciences, H&SS and Fundamental and Earth Sciences meet on more even terms.

This will greatly ease the consolidation of the institutional organisation of the Target University since there won't be a major gap between the student numbers among these domains, that shall be organised into faculties:

- Health sciences (Médecine, Pluridisciplinaire Santé, Pharmacologie, Odontologie, etc.) - c. 28,000 students
- Social Sciences and Humanities (Sciences Humaines et Sociales, Droit, Sciences, Politiques, Langues, Lettres, etc.) - c. 23,000 students
- Natural Sciences (Sciences Fondamentales et Appliquées, Sciences de la Vie et de la Terre) - c. 13,000 students

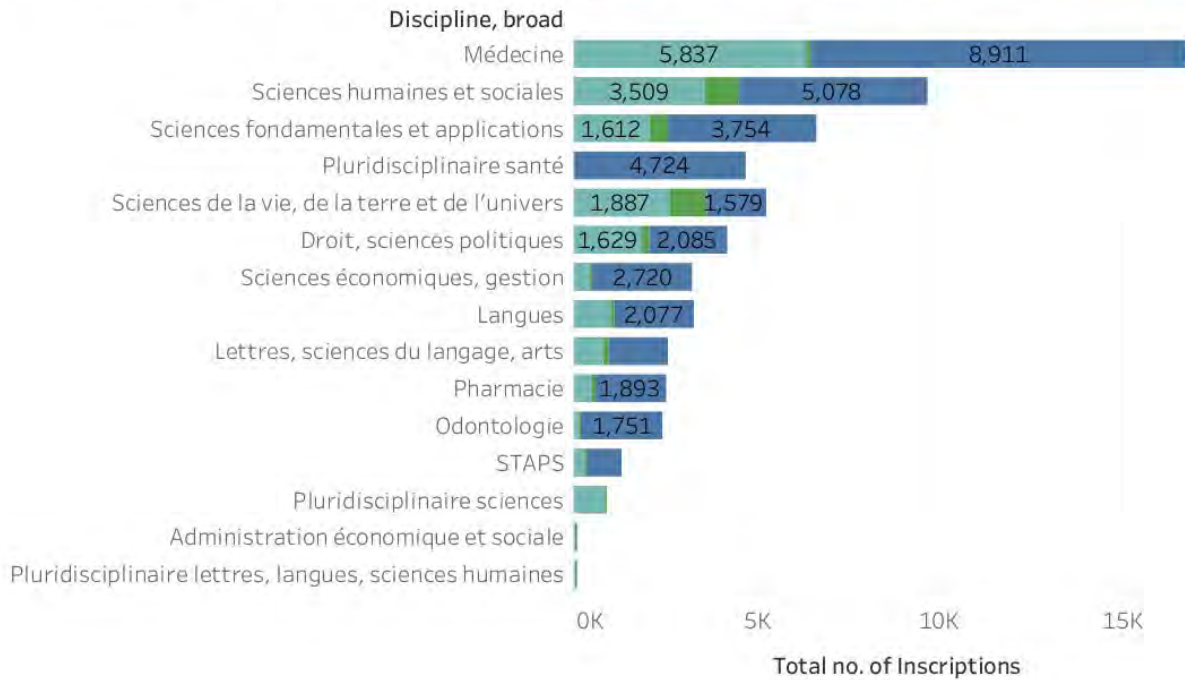
¹ The data we draw on in this section come from 2 datasets of the open data portal of the French Ministry for Higher Education, that we compared and corrected with internal data. (a) “Diplômes délivrés dans les établissements publics sous tutelle du ministère en charge de l'enseignement supérieur et de la recherche”

https://data.enseignementsup-recherche.gouv.fr/explore/dataset/fr_esr_sise_diplomes_delivres_esr_public; (b) “Effectifs d'étudiants inscrits dans les établissements publics sous tutelle du ministère en charge de l'Enseignement supérieur et de la Recherche”

<https://data.enseignementsup-recherche.gouv.fr/explore/dataset/fr-esr-sise-effectifs-d-etudiants-inscrits-esr-public>

² IPGP has 400 Master-level students, who are administered by Paris 7. They do not show up in this graph for this reason, but are counted in Paris 7's numbers.

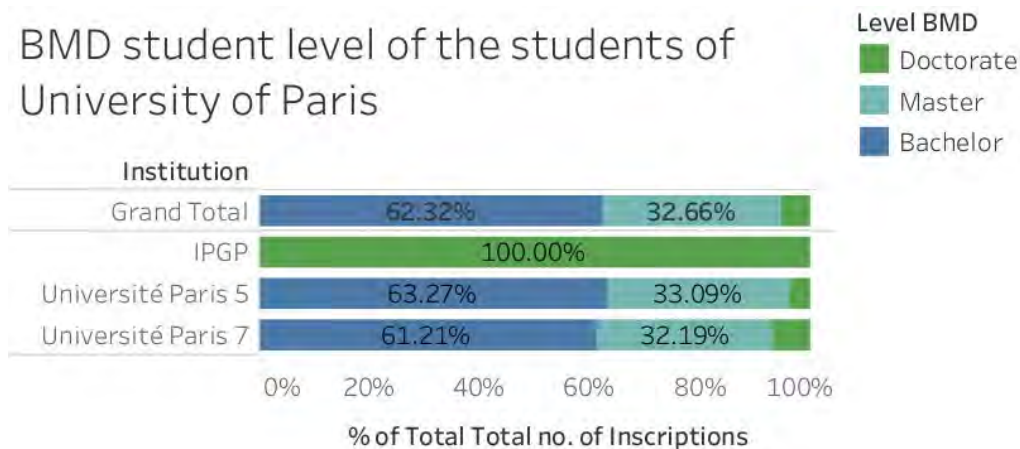
Students of University of Paris by discipline and level of study



Institution	Level BMD	Level BMD	Level BMD
Grand Total	63,780	Grand Total 63,780	Bachelor 62.32%
IPGP	78	Bachelor 39,747	Doctorate 5.02%
Université Paris 5	36,564	Doctorate 3,200	Master 32.66%
Université Paris 7	27,138	Master 20,833	

We can see that we are behind in the proportion of doctorates among our students, and we have selected this point therefore as a prime area for action. Nevertheless, this apparent weakness is partially mitigated by the importance of Medicine studies, that traditionally involve lower proportions of PhD students.

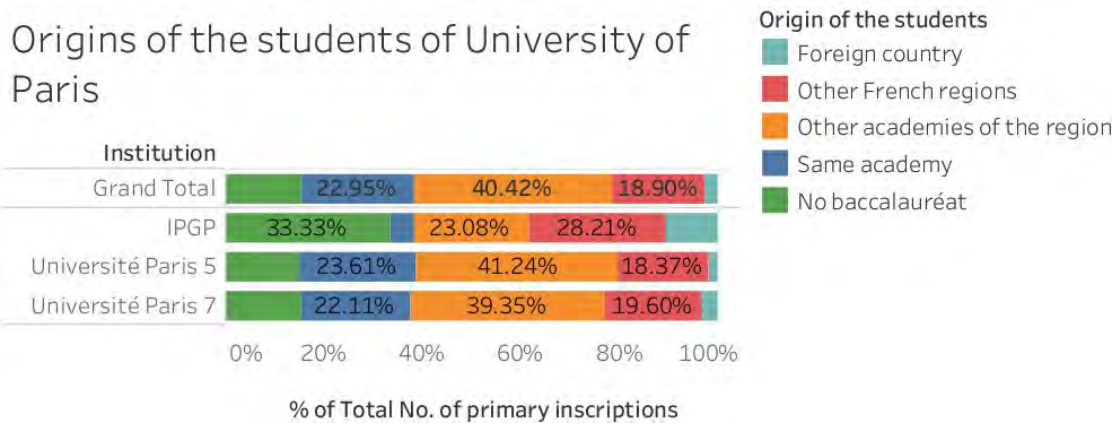
BMD student level of the students of University of Paris



Composition of the student corpus

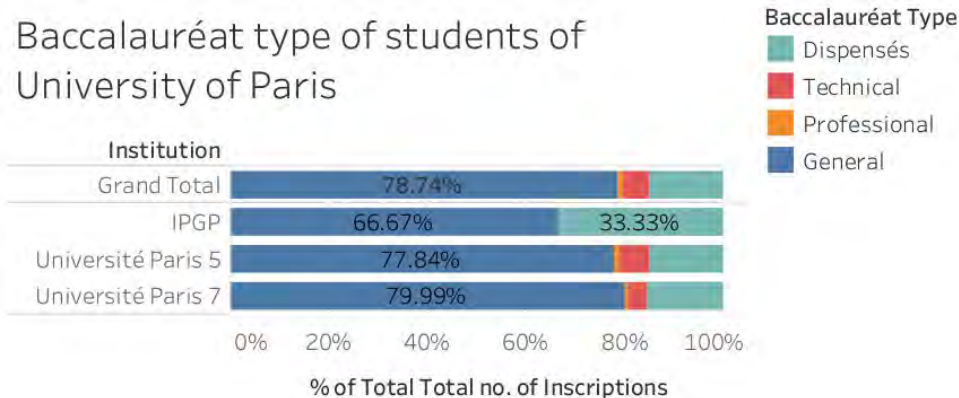
Geographical origin of students

The following graphs show the distribution of origins of students for the named institutions. From the left to the right the distance of the origin of the students increases, apart from the item “Non bacheliers” that accounts for special situations or lack of data.



We can see that University of Paris will show rather diversified students origin, with a rather original profile in the Ile-de-France context.

Baccalauréat type of students and age at the Baccaulauréat

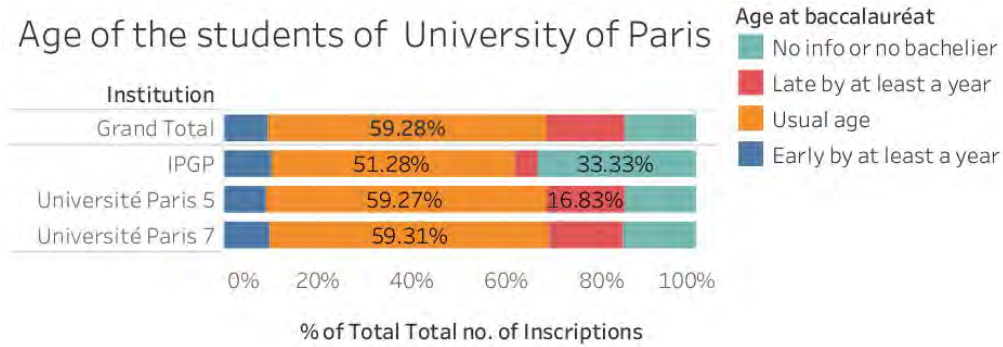


The portion of general Baccalauréats of University of Paris’ core perimeter is much increased compared to professional and technical series, when we compare to the previous setup. The members that are not part of the core perimeter that will form the Target University are indeed those that have relatively more professionally and technically trained students (this concerns especially Paris 13 and the EHESP, but Paris 3 and INALCO also had a significantly higher portion of technical and professional series than the core institutions).

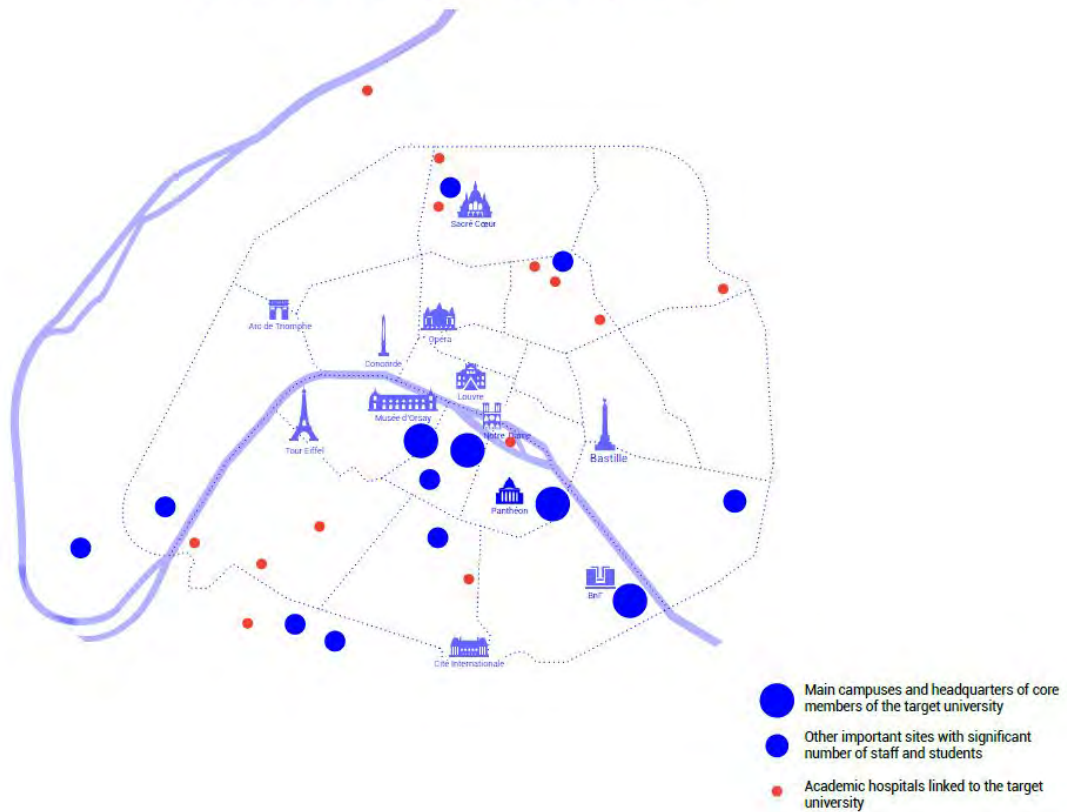
This is an important point to consider, as it shows that the Target University has attained a suitable proportion of baccalauréat types to play in the first league, since this distribution corresponds closely to that of similar research-intensive universities in the Paris area.

In terms of age of students at the Baccalauréat, we see that the Target University reaches 69% of students that have finished their secondary education either ahead of time or within the normal timeframe.

Age of the students of University of Paris



Main campuses of the target university in Paris and nearby surrounding area



Staff

General information³

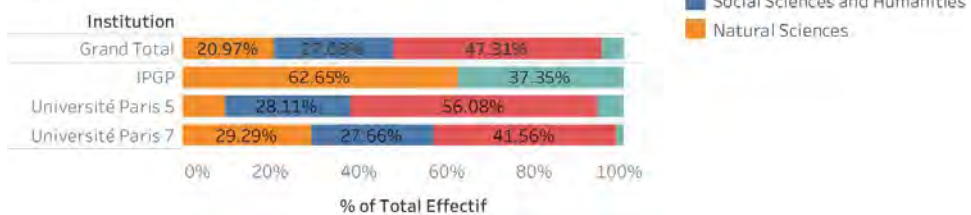
Institution	Staff categories	Staff categories
IPGP	83	Contractuals 182 6.35%
Université Paris 5	1,373	Tenure: MCF 1,386 48.36%
Université Paris 7	1,410	Tenure: Full professor 1,175 41.00%
Grand Total	2,866	Visiting Full Prof. & MCF 123 4.29%
		Grand Total 2,866

The Target University retains a student/staff ratio of slightly above 20, but with an exceptionally high portion of tenured staff.

In addition, the Target University has a very high portion of full professors: 41%. Overall, this gives the Target University a total of 89% of MCF and Full professor positions.

Disciplinary profile of staff

Borad disciplines of University of Paris by discipline and category



³ The perimeter of staff we consider in this section is rather restreint, mainly in that we consider only university staff stricto sensu, which means notably, that we do not count staff of the medical institutions attached to the University of Paris and who pay their own staff.

We draw again on 2 datasets of the open data portal of the French Ministry for Higher Education, that we checked with internal data. (a) “Les enseignants titulaires des établissements publics de l'enseignement supérieur”

<https://data.enseignementsup-recherche.gouv.fr/explore/dataset/fr-esr-enseignants-titulaires-esr-public/table/?disjunctive.annee>;

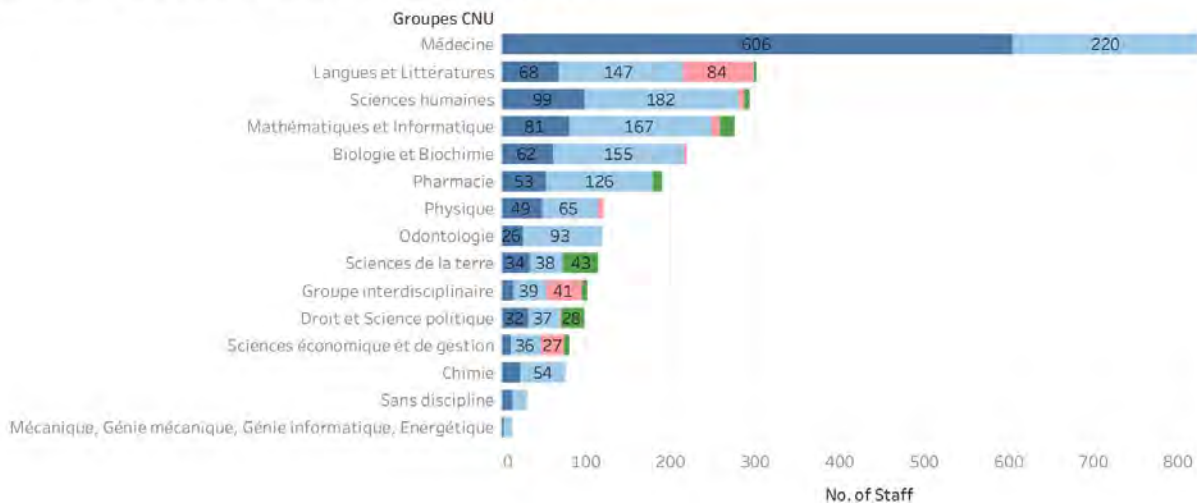
(b) “Les enseignants non permanents des établissements publics de l'enseignement supérieur”

<https://data.enseignementsup-recherche.gouv.fr/explore/dataset/fr-esr-enseignants-nonpermanents-esr-public/>

The table below presents the detail of staff categories per discipline :

Categorie de personnels
 Visiting Full Prof. & MCF
 Contractuals
 Tenure: MCF
 Tenure: Full professor

Staff of USPC core by discipline and category



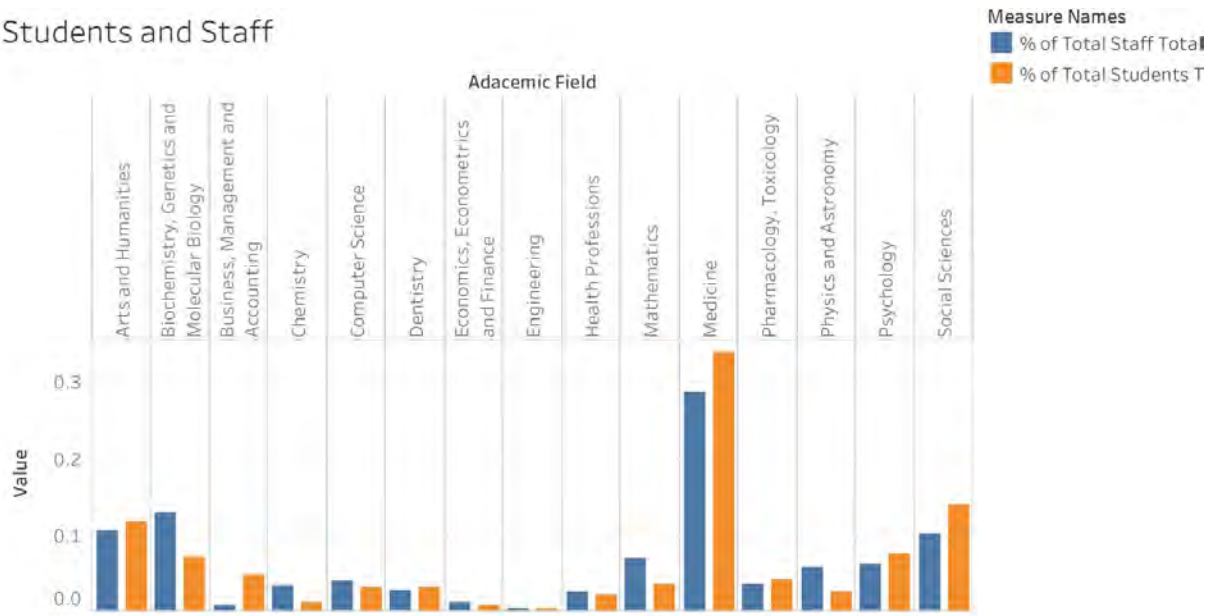
From the point of view of disciplinary distribution, the strength of the Health Sciences is more pronounced than from that of student numbers, but this strong presence is by no means excessive. We will have a closer look at the relation between student numbers and staff shortly, and shall weigh these numbers against the setup of the French system by calculating specialisation indexes for student numbers and staff. But we will yet briefly discuss the details of the staff distribution among the disciplines.

Student/staff ratio across disciplines

In order to assess what we have seen so far and put the different aspects together, we can juxtapose the staff and student number to see if the relation is homogeneous or not.

We express the student and staff numbers here as percentages of the overall count.

Students and Staff



We can see that this distribution reflects the traditional biases among interdisciplinary practice, like the typically higher student/staff ratio in Social Sciences.

Business and Accounting appear as an outlier here, but this might well be due to the fact that teaching is partly ensured by staff from other disciplines.

Health sciences remain within the usual spectrum.

We can see an exceptionally low student/staff ratio in the Life Sciences, Mathematics and Physics. This is a guarantee of quality in terms of student experience and accompaniment, that is both valued as such by potential students and retained as an indicator by several academic rankings (national and international).

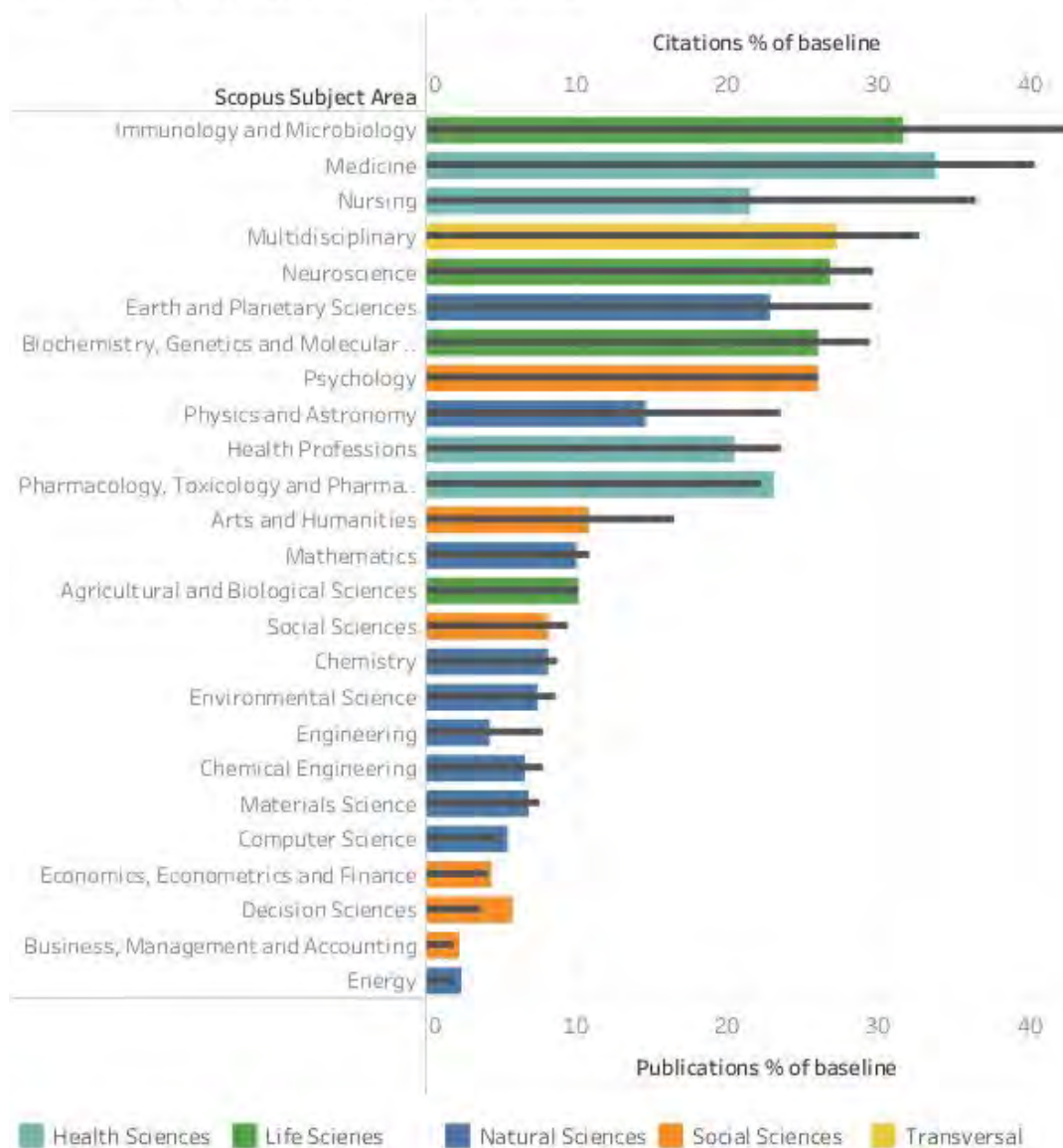
Bibliometrics and scientific profiling

The University of Paris contributes to

- 8.5% of French production
- 12.8% of French Citations⁴

The following graph shows the repartition and the impact of University of Paris' production as percentages relative to the baseline of France in that area. Colored bars relate the production and the thinner black ones the citations. The graph is ordered by the percentage of citations in a given area, making it impact-focused. Please note, that the percentage indicates participation and includes co-authored papers. It does not claim exclusive merit to UoP. This goes also for the numbers above.

University of Paris against France



⁴ The analysis is based on Scopus for the year 2015.

We can see, that In 14 out of 25 subject areas, we participate in the production of 10% or more. In 9, we participate in 20%.

Fields of great share of production include:

- Health Sciences (all of the corresponding subject areas) where the University of Paris contributes to around 1/4th of French production
- Life Sciences, especially Immunology and Microbiology, Neuroscience and Biochemistry (we can see, that Life Sciences are particularly strong in disciplines support the Health Sciences)
- A very strong contribution to Multidisciplinary research
- A very strong stance in Psychology
- Natural Sciences with Earth and Planetary Sciences and Physics

In terms of impact, we can see, that in 21 areas, our citation share in France is superior to expectations considering the level of production in that field. This means, that the quality of our research is excellent, even in fields, where our production is relatively low.

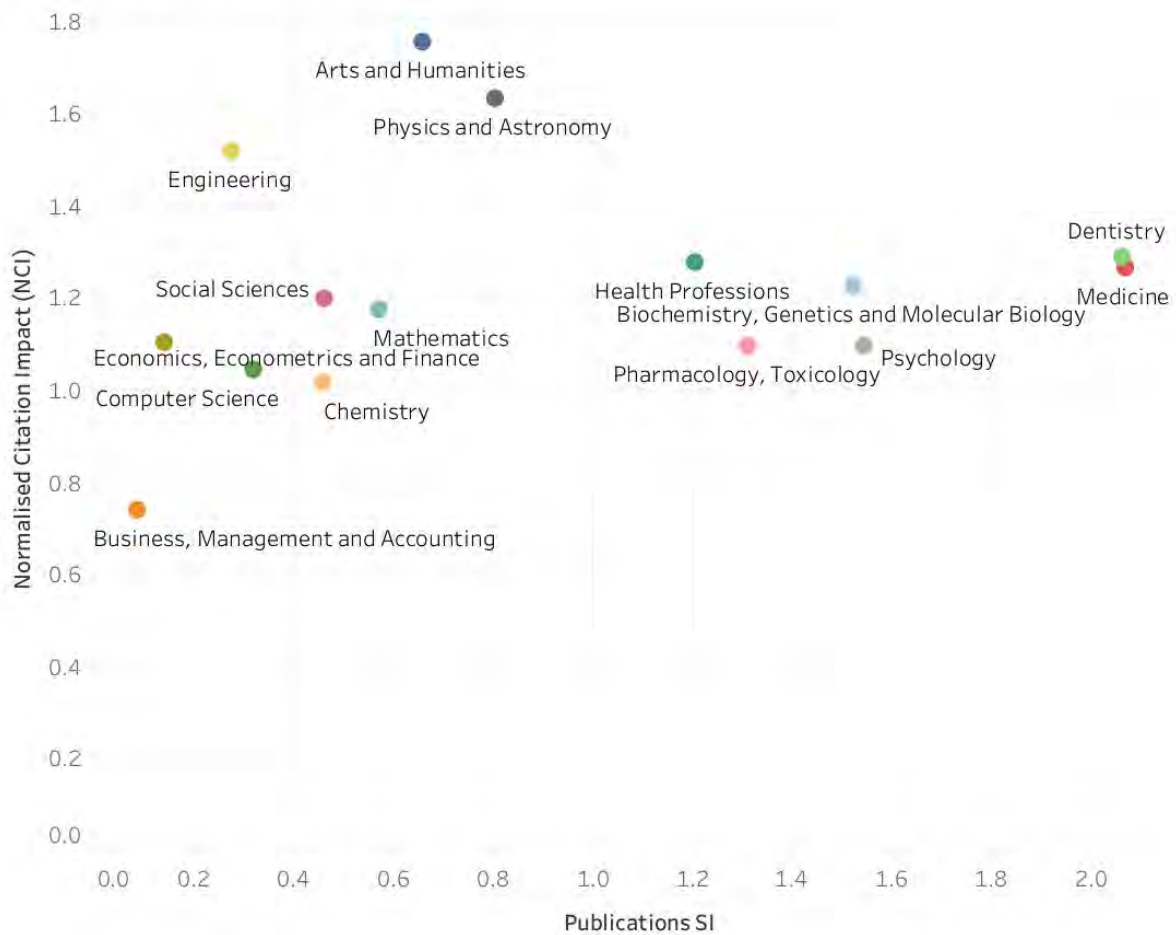
Considering the share of citations as an indicator for visibility of the University of Paris in the fields, we can establish the same list as above - but we would need to include the Arts and Humanities, that have a very high production/impact ratio (corresponding to the NCI).

Considering density (the proportion between production and citation counts), we can identify several groups

- Nursing and immunology are outliers in terms of density, and Nursing is still quite clearly before Immunology
- They are followed by a group of excellent results by Physics, Arts and Humanities, Earth and Planetary Sciences, Medecine and Multidisciplinary
- Still very good results are obtained by Neuroscience, Biochemistry and Health Professions
- We consider Engineering as a group apart, since it is not part of the main group of high productivity, but has an extremely high impact compared to its size.
- A group of lower density is that of Decision Sciences Economics, Business and Computer Science.

Looking now at the relation between impact and publications, we can further specify the distribution of density within the University of Paris.

Impact over publications

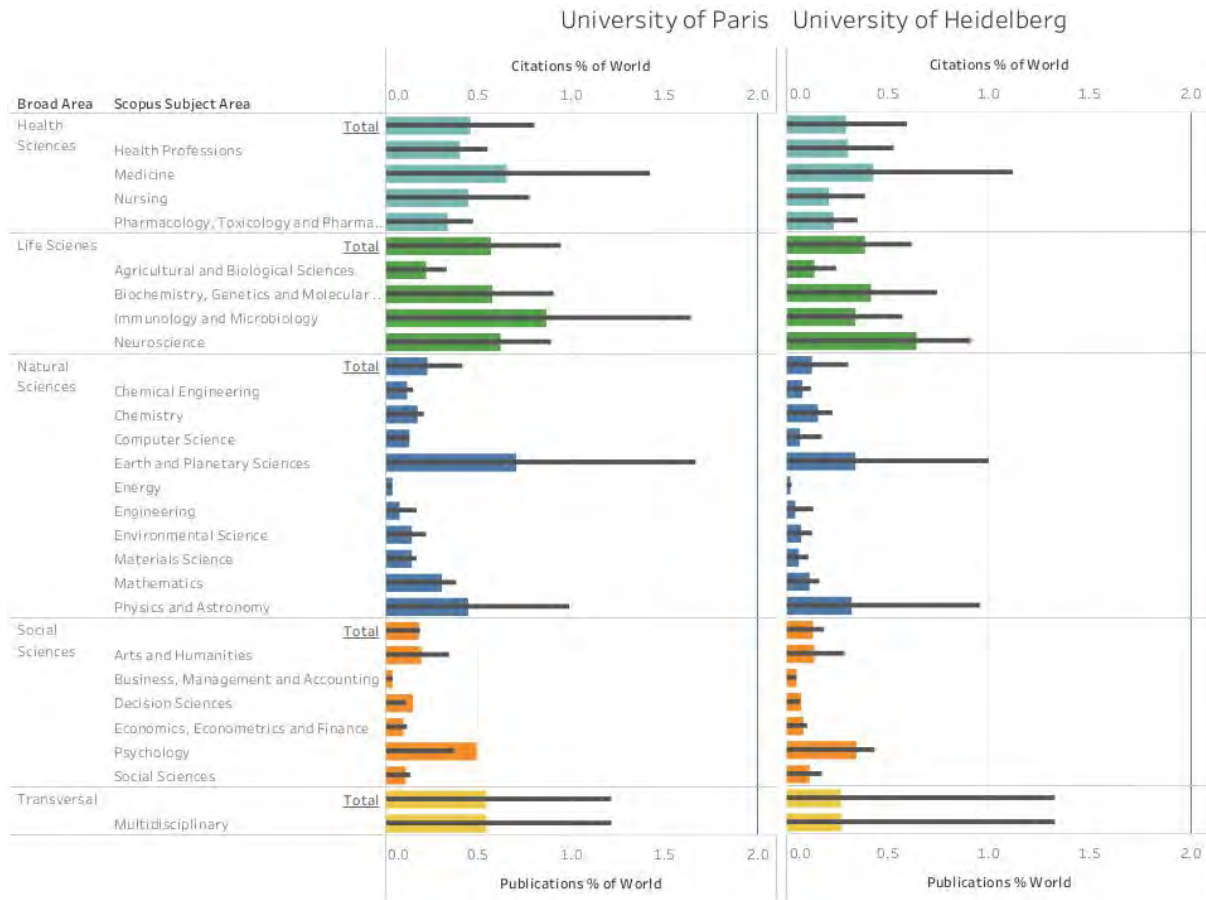


We can see here the group of Arts and Humanities, Physics and Astronomy and Engineering as outliers of very high density in this perspective, and their development and valorisation will merit special attention.

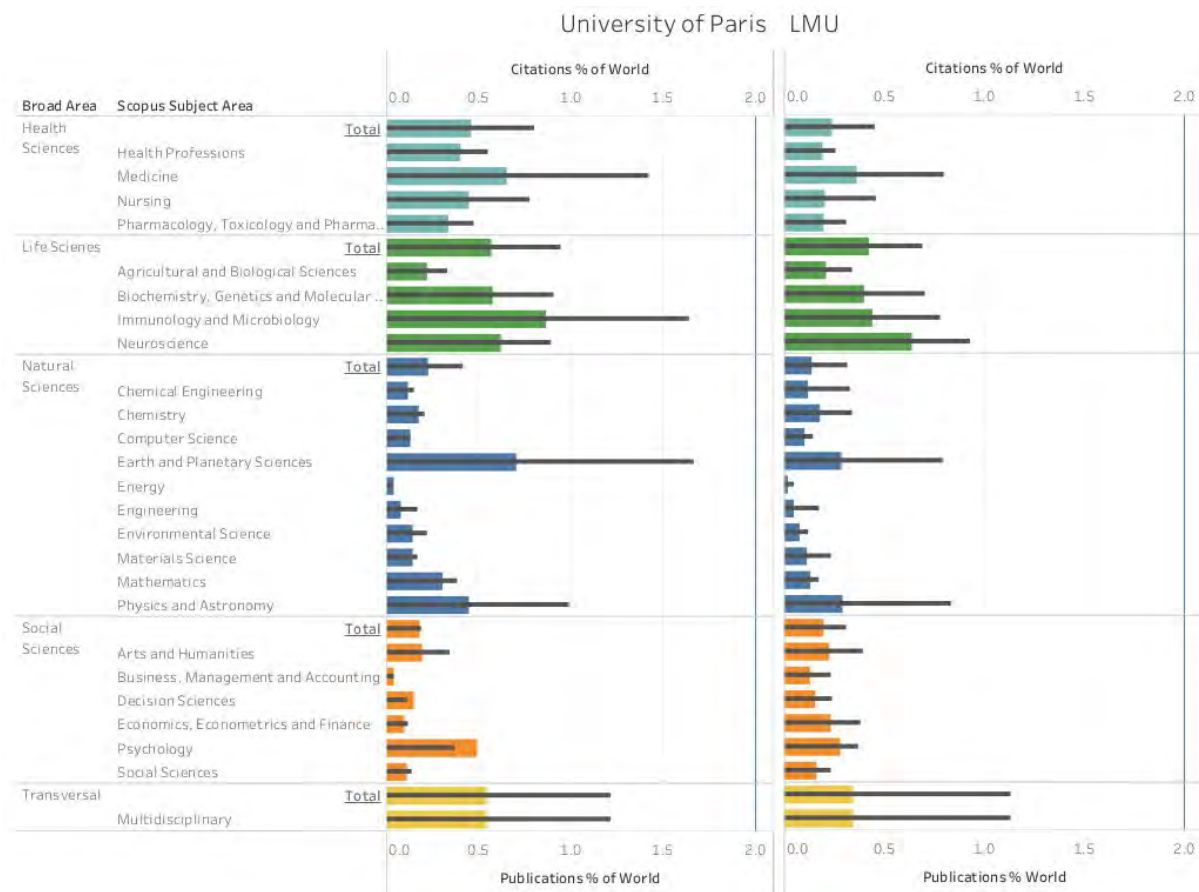
We do not have strong outlier disciplines in terms of production or in terms of impact. Rather, we have a very high share of impact in as many as in 12 subject areas. We are therefore very clearly a comprehensive institution.

Benchmarks

Comparing with other institutions, we can see, that our profile resembles very much that of Heidelberg:



Compared to Ludwig-Maximilians University Munich, we are stronger in Health Sciences, while LMU is relatively stronger in the Social Sciences:



Other suitable benchmarks in terms of profile include UCL and Stanford and we analyse closely their success.

Contextualisation

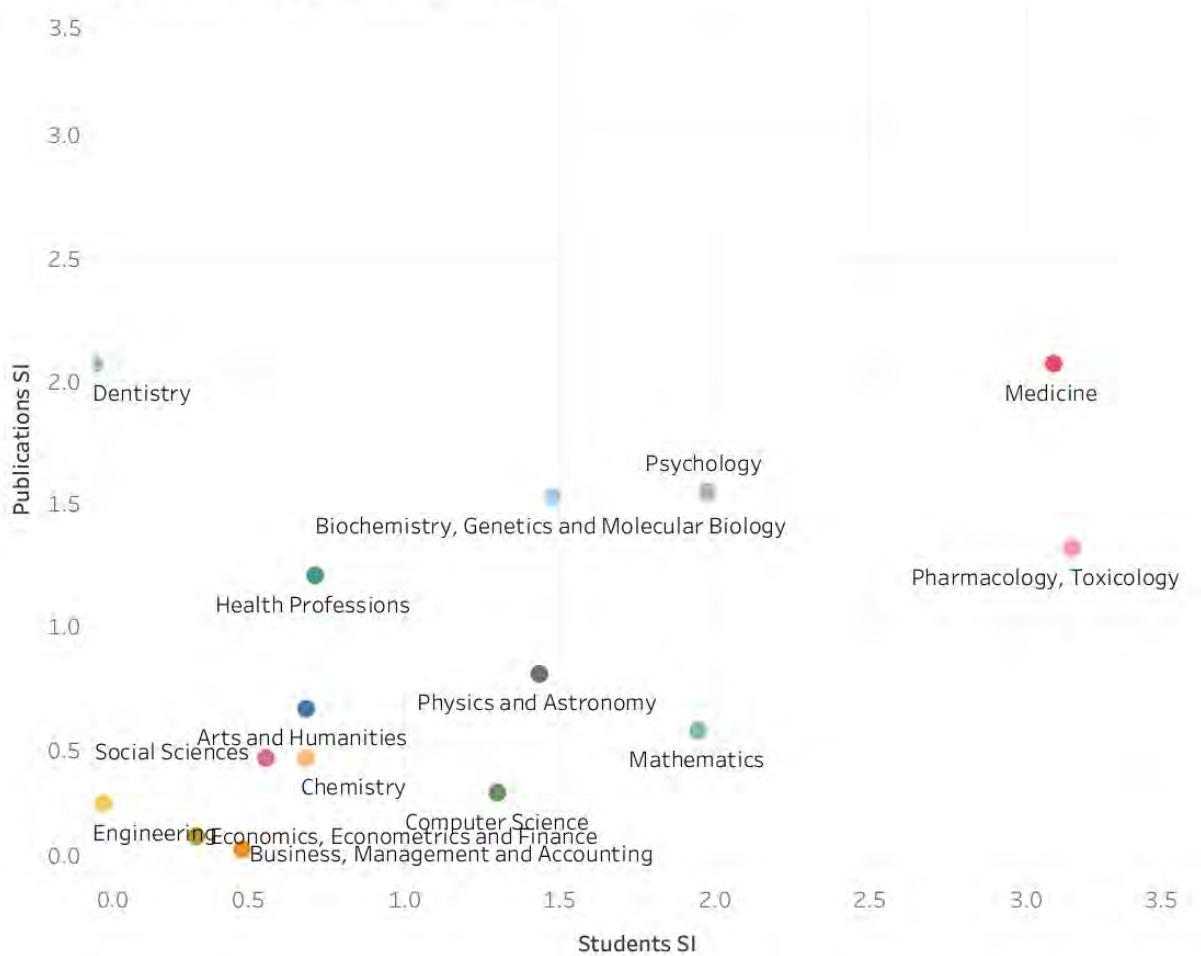
Contextualising the bibliometric data with the other data we have gathered, we can produce a series of interesting analysis.

In these analysis, we rely on the Specialisation Index (SI) that indicates the relative weight of a discipline within the setup of an institution considering what would be considered a normal distribution relative to a baseline (France in our case).

We need to remark the fact, that Dentistry is particular, in that it is organisationally not independently visible, contrary to Bibliometrics. and the results should be considered as requiring a dedicated interpretation and should be disregarded in our context..

Let us first look at the relation between student numbers and publications.

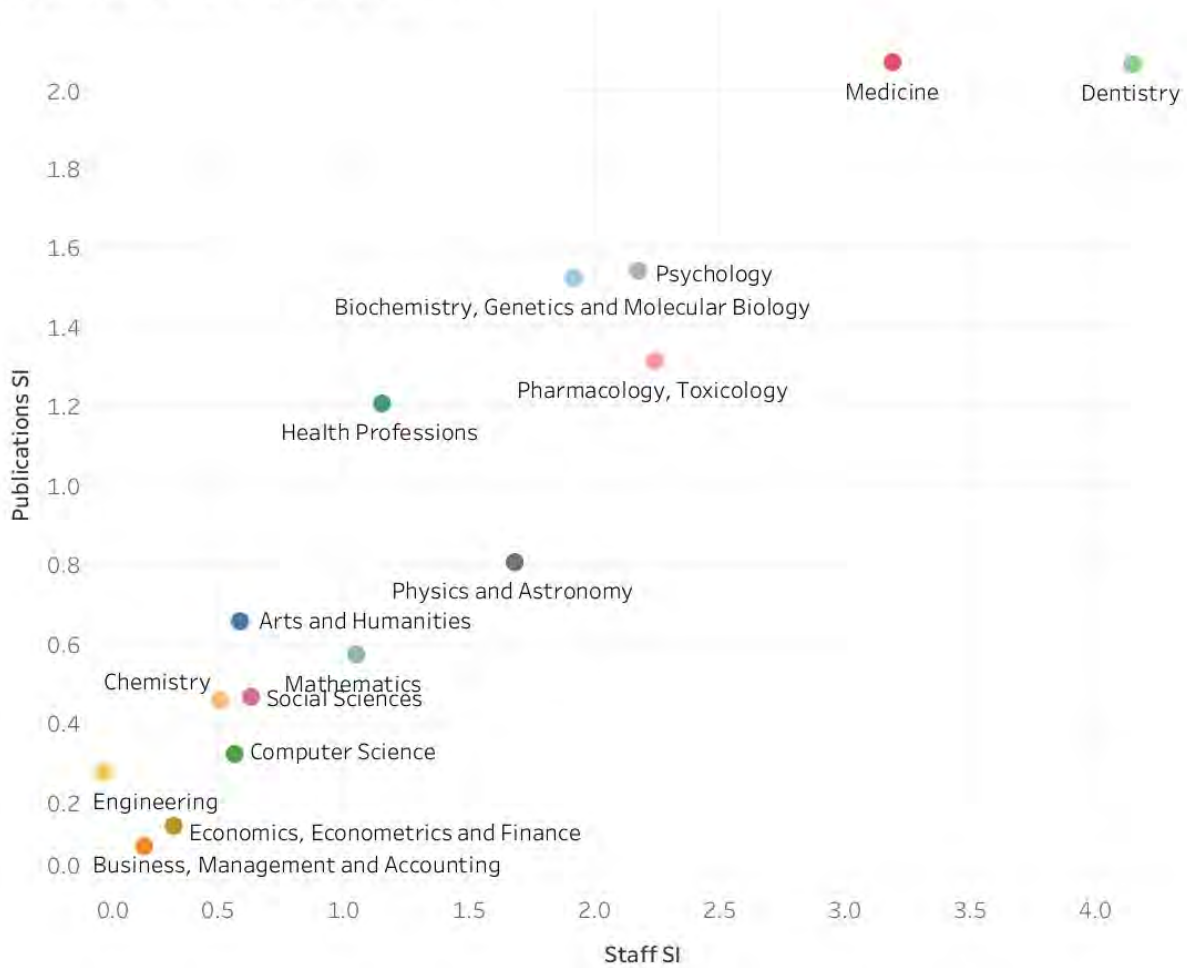
Publications SI over Students SI



Proposed reading: Medicine has a high specialisation in bibliometric terms, that corresponds to a high specialisation in terms of students. Health professions, Biochemistry and Psychology have a tendency to a higher weight of publication, while in Economics, Business, Computer Science and Mathematics, the student body specialisation is much higher than that in terms of publications. This is exactly the same group for which we found a relatively lower density in the analysis above.

Considering the relation between specialisation in the staff body and in publications, we can see a very coherent distribution.

Publications SI over Staff SI



The staffing of disciplines correspond to their performance in publications. We can say, that we do not have underperforming disciplines and that our staff is high performing throughout.

If we look at the distribution between Impact and staff count, we find the same distribution we found above in the comparison of production and impact. The same group pops up: Arts and Humanities, Physics and Astronomy and Engineering:

Impact over staff

