



PNN PhD Survey

Asking the relevant questions

Teaching

Promovendi Network Nederland

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Summary

- 48.1% of the PhDs have to teach according to their PhD agreement. PhDs at universities have to teach relatively more often than PhDs at University Medical Centers (UMCs) or other types of institutions. Employee PhDs have to teach relatively most often.
- In practice, 66.6% of the PhDs actually teach. 41.9% of the PhDs who indicated that they do not have to teach according to their agreement also do teach in practice. 90.3% of the PhDs who have to teach according to their agreement actually teach in practice.
- 39.4% of the scholarship PhDs who do not have to teach according to their agreement do teach in practice. The same holds for 30.4% of the external PhDs.
- 86.4% of the PhDs who teach in practice, but do not have to teach according to their agreement, do not get paid extra for their teaching work. This means that 23.3% of all PhDs who teach do not get paid for their teaching work. External PhDs relatively often to get paid extra for teaching outside of their agreement (47.6%, 10 out of 21).
- 49.5% of the PhDs who do not teach in practice would have liked to teach, 18.5% would not have liked to teach.
- According to their agreements, PhDs should on average spend 15.6% of their time on teaching. In practice, PhDs spend 18.3% of their time on teaching.
- 56.5% of the PhDs who have to teach according to their agreement and do teach in practice spend more time on their teaching than the time indicated in their agreement. On average, they spend 39.3% more time on teaching relative to the time indicated in their agreement. 29.6% of the PhDs spend more than 50% more time on teaching than they should according to their agreements. 15.6% teach less in practice than they should according to their agreement.
- PhDs rate their satisfaction with their teaching load in practice a 3.61 on a scale from 1 (very dissatisfied) to 5 (very satisfied). 59.6% of the PhDs are satisfied with their teaching load. The higher the teaching load in practice, the less satisfied PhDs are with their teaching load. The higher the teaching load in practice relative to the teaching load according to the agreement, the less satisfied PhDs are with their teaching load.
- On average, PhDs have 3.77 types of teaching tasks. The most common teaching tasks are teaching tutorials and supervising Master's and Bachelors' theses. PhDs who have to teach according to their agreement have on average more types of teaching tasks than PhDs who do not have to teach according to their agreement. Scholarship PhDs have fewer types of teaching tasks than employee PhDs and 'other' types of PhDs.
- PhDs at universities most often teach tutorials, while PhDs at UMCs most often supervise Master's theses. PhDs who teach in practice while they do not have to teach according to their agreement relatively often lecture, as do external PhDs and 'other' types of PhDs. Scholarship PhDs most often supervise Master's theses.

Recommendations

- All PhDs should be given the opportunity to get teaching experience if they want to, and be able to get a University Teaching Qualification (UTQ). Teaching is a structural part of the work activities of most academics, hence not having teaching experience can be a disadvantage in the post-PhD labour market.
- Related to this, all PhDs who teach should be remunerated for their work, regardless of the type of PhD arrangement and especially if teaching is not part of the PhD agreement. This should also be the case if PhDs are working to get a UTQ.
- In the case of scholarship PhDs, remunerating them for teaching tasks is not possible, as this results in fiscal issues for the institutions. This shows that the scholarship PhD position is not beneficial for PhDs in this respect either: either scholarship PhDs cannot get teaching experience at all, which may be disadvantageous to them, or they feel obliged to teach for free, allowing institutions to abuse their need for teaching experience. Either way, the scholarship PhD is disadvantaged. By hiring PhDs as employee PhDs, these issues can be easily solved.
- Limit the proportion of time spent on teaching for PhDs to a maximum of 20%, but *ideally less*. Given that teaching tasks currently take much more time than estimated beforehand, a too large teaching load can result in a too high workload and insufficient time to spend on research.
- Realistically estimate how much time PhDs will need to carry out their teaching tasks. Many PhDs teach more than they should according to their agreement. This is due to the fact that the time allocated to teaching tasks is often much less than the time actually required to execute the teaching tasks. Though this holds for academics at all levels, PhDs are even more strongly affected: they are likely to need even more time to prepare as they usually do not have much teaching experience yet. Universities, UMCs and research institutes should therefore not only make the allocation of time to teaching tasks more realistic in general, but ideally provide more time when PhDs carry out the teaching tasks.

Samenvatting

- 48,1% van de promovendi moet onderwijs geven volgens hun promotieovereenkomst. Promovendi aan universiteiten moeten relatief vaker onderwijs geven dan promovendi aan Universitair Medische Centra (UMC's) of andere typen instellingen. Werknemerpromovendi moeten het vaakst onderwijs geven.
- In de praktijk geeft 66,6% van de promovendi onderwijs. 41,9% van de promovendi die aangaven geen onderwijs te hoeven geven volgens hun promotieovereenkomst geeft in de praktijk wel onderwijs. 90,3% van de promovendi die onderwijs moeten geven volgens hun promotieovereenkomst geeft in de praktijk ook onderwijs.
- 39,4% van de beurspromovendi die geen onderwijs hoeven te geven volgens hun promotieovereenkomst geven in de praktijk toch onderwijs. Hetzelfde geldt voor 30,4% van de buitenpromovendi.
- 86,4% van de promovendi die in de praktijk onderwijs geven, maar dat formeel niet hoeven volgens hun promotieovereenkomst, krijgen niet extra betaald voor hun onderwijstaken. Dat betekent dat 23,3% van de promovendi die onderwijs geven daar niet voor betaald worden. Buitenpromovendi krijgen relatief vaak wel extra betaald voor het lesgeven naast hun promotieovereenkomst (47,6%, 10 van de 21).
- 49,5% van de promovendi die in de praktijk geen onderwijs geven had graag onderwijs willen geven. 18,5% had geen onderwijs willen geven.
- Volgens hun overeenkomsten zouden promovendi gemiddeld 15,6% van hun tijd aan onderwijs moeten besteden. In de praktijk besteden promovendi 18,3% van hun tijd aan onderwijs geven.
- 56,5% van de promovendi die volgens hun promotieovereenkomst onderwijs moeten geven en ook in de praktijk onderwijs geven, besteedt meer tijd aan het geven van onderwijs dan ze zouden moeten volgens hun promotieovereenkomst. Gemiddeld besteden ze 39,3% meer tijd aan onderwijs, relatief aan de tijd die ze volgens hun promotieovereenkomst zouden moeten besteden aan onderwijs. 29,6% van de promovendi besteedt meer dan 50% meer tijd aan onderwijs dan ze volgens hun promotieovereenkomst zouden moeten doen. 15,6% van de promovendi besteedt in de praktijk minder tijd aan het geven van onderwijs dan ze zouden moeten volgens hun promotieovereenkomst.
- Promovendi beoordelen hun tevredenheid met de tijd die ze in de praktijk aan onderwijs besteden (onderwijslast) met een 3.61 op een schaal van 1 (zeer ontevreden) tot 5 (zeer tevreden). 59,6% van de promovendi is tevreden met hun onderwijslast. Hoe hoger de onderwijslast is, hoe minder tevreden promovendi ermee zijn. Hoe hoger de onderwijslast relatief is ten opzichte van de tijd die ze volgens hun promotieovereenkomst zouden moeten besteden aan onderwijs, hoe minder tevreden promovendi zijn met hun onderwijslast.
- Promovendi hebben gemiddeld 3,77 soorten onderwijstaken. De meest voorkomende onderwijstaken zijn het geven van werkgroepen en het begeleiden van master- en bachelortheses. Promovendi die volgens hun promotieovereenkomst onderwijs moeten geven hebben gemiddeld meer soorten onderwijstaken dan promovendi die volgens hun promotieovereenkomst geen onderwijs zouden hoeven geven. Beurspromovendi hebben gemiddeld minder typen onderwijstaken dan werknemerpromovendi en 'overige' typen promovendi.
- Promovendi aan universiteiten geven relatief vaak werkgroepen, terwijl promovendi aan UMC's relatief vaak masterthesen begeleiden. Promovendi die onderwijs geven terwijl ze dat niet zouden hoeven volgens hun promotieovereenkomst geven relatief vaak

hoorcolleges, net als buitenpromovendi en 'overige' typen promovendi. Beurspromovendi begeleiden vaak mastertheses.

Aanbevelingen

- Alle promovendi zouden de gelegenheid moeten kunnen krijgen om onderwijservaring op te doen als ze dat willen en om een Basis Kwalificatie Onderwijs (BKO) te behalen. Onderwijs geven is een structureel onderdeel van de werkzaamheden van academici. Daarom kan een gebrek aan onderwijservaring een groot nadeel zijn op de post-PhD arbeidsmarkt.
- Hieraan gerelateerd zouden alle promovendi die onderwijs geven financieel beloond moeten worden voor hun werk, ongeacht type promotietraject en vooral als onderwijs geven geen onderdeel is van de promotieovereenkomst. Dit zou ook het geval moeten zijn als promovendi bezig zijn met het behalen van hun BKO.
- In het geval van beurspromovendi is het vaak niet mogelijk om een financiële beloning aan te bieden voor onderwijstaken, omdat dit tot belastingtechnische problemen kan leiden voor instellingen. Dit toont aan dat promoveren als beurspromovendus ook op dit gebied niet voordelig is voor promovendi: of beurspromovendi kunnen geen onderwijservaring krijgen, wat hen kan benadelen, of ze voelen zich verplicht om gratis onderwijs te geven, wat instellingen de mogelijkheid geeft om misbruik te maken van hun wens om onderwijservaring op te doen. In elk geval wordt de beurspromovendus benadeeld. Door promovendi als werknemerpromovendi aan te nemen, kunnen deze problemen makkelijk worden opgelost.
- Beperk het aandeel tijd dat promovendi aan onderwijs mogen besteden tot maximaal 20%, maar *idealiter minder*. Aangezien onderwijstaken op dit moment veel meer tijd kosten dan vooraf wordt ingeschat, kan een te grote onderwijslast resulteren in een te hoge werklast en in onvoldoende tijd om aan onderzoek te besteden.
- Bereken de hoeveelheid tijd die promovendi kwijt zijn aan onderwijstaken op een realistische manier. Veel promovendi besteden meer tijd aan onderwijs dan ze zouden moeten volgen hun promotieovereenkomst. Dit komt doordat de tijd die voor onderwijstaken is ingecalculeerd veel lager is dan de tijd die de onderwijstaken daadwerkelijk kosten. Hoewel dit geldt voor wetenschappers op alle niveaus, worden promovendi hier extra zwaar door geraakt: zij hebben waarschijnlijk nog meer tijd nodig om zich voor te bereiden omdat ze normaliter nog niet veel onderwijservaring hebben. Universiteiten, UMC's en onderzoeksinstituten zouden daarom niet alleen de tijd die nodig is voor onderwijstaken realistisch moeten berekenen, maar idealiter ook meer tijd moeten incalculeren wanneer promovendi de onderwijstaken uitvoeren.

Introduction

For many PhDs, teaching is a substantial part of their trajectory. Teaching experience is a useful experience for PhDs who want to pursue a career in academia. At the same time, universities and UMCs benefit from PhDs taking up teaching responsibilities. However, spending too much time on teaching tasks comes at the expense of research time. It is therefore important that PhDs only teach when it is part of their agreement, and when it is not part of the agreement, that they are compensated. Also, it is important that PhDs do not spend more time on teaching than the amount that has been agreed upon beforehand.

In this report, we present the results of the PNN PhD Survey's questions concerning teaching. We investigate how many PhDs have to teach according to their PhD agreement, and how many PhDs teach outside of a formal agreement. We additionally investigate the formal teaching load, and how this relates to the actual teaching load in practice. We also elaborate on PhDs' satisfaction with their teaching load, and which types of teaching responsibilities PhDs have.

Methodology

We present the results based on the responses of 1,601 PhDs who have completed the PNN PhD survey. More information about this survey and the completion rate can be found in the [PNN Survey Report on Survey information, demographics and COVID-19](#).

General variables

Type of institution

The respondents were asked at what kind of institution they were doing their PhD. The respondents could choose between University, University Medical Center, non-University Medical Center, Research institutes connected to Universities, Independent Research Institutes Universities of Applied Sciences and Other. For those who answered "Other, namely..." and provided an open answer (n=22), we analysed the answers to see whether their institution could be categorized into one of the existing categories. This was the case for 9 respondents.

Due to small numbers in the categories other than University and UMC, we will use a 3-group classification of type of institution when discussing other survey results. In this classification, we combine the categories University and Research Institution affiliated to a university into one category, keep a separate category for University Medical Centers, and combine the independent Research Institutes, non-University Medical Centers, Universities of Applied Sciences and other into one category, labelled 'Other'.

Type of PhD arrangement

The type of PhD arrangements was measured using a complex procedure which allowed to capture the large variation in PhD arrangements that exist in the Dutch academic system. For this purpose, different classification questions were used for different types of institutions. These institution-specific typologies were subsequently combined into one overall typology of PhD arrangements. A detailed account of this procedure can be found in the [PNN Survey report on Survey information, demographics and COVID-19](#). The PhD typology used is the overall PhD typology that distinguishes between "Employee PhDs", "Scholarship PhDs", "External PhDs" and "Other" types of PhDs.

The methodologies concerning subject-specific variables will be elaborated in the results section.

Results

Teaching is often a part of the PhD trajectory, but it is not mandatory. Not all PhDs have to teach according to their PhD agreements. That does not necessarily mean, however, that PhDs do not teach at all. We therefore asked the PhDs in our survey whether they have teaching responsibilities according to their agreement, and whether they indeed carry out teaching tasks in practice.

Teaching according to agreement

The combined results to these questions can be found in figure 1.1. 765 (48.1%) of the PhDs indicate that they have to teach according to their agreement, while 682 (43%) do not have to teach according to their agreement. The other 141 (8.9%) do not know whether they have to teach.

There are some differences in the teaching agreements between types of institutions. PhDs at universities have to teach (52.3%) relatively more often, whereas PhDs at UMCs and other types of institutions are less often required to teach (37.8% and 32% respectively). Interestingly, PhDs at UMCs and other types of institutions often do not know whether they have to teach according to their agreement.

There are larger differences between the types of PhD arrangements. 59% of employee PhDs indicate that they have to teach according to their agreement, whereas this is only 12.8% for scholarship PhDs and 6.3% for external PhDs. Of the other types of PhDs, 38.2% indicate that they have to teach according to their agreement. This group also often indicates that they do not know whether they have to teach according to their agreement.

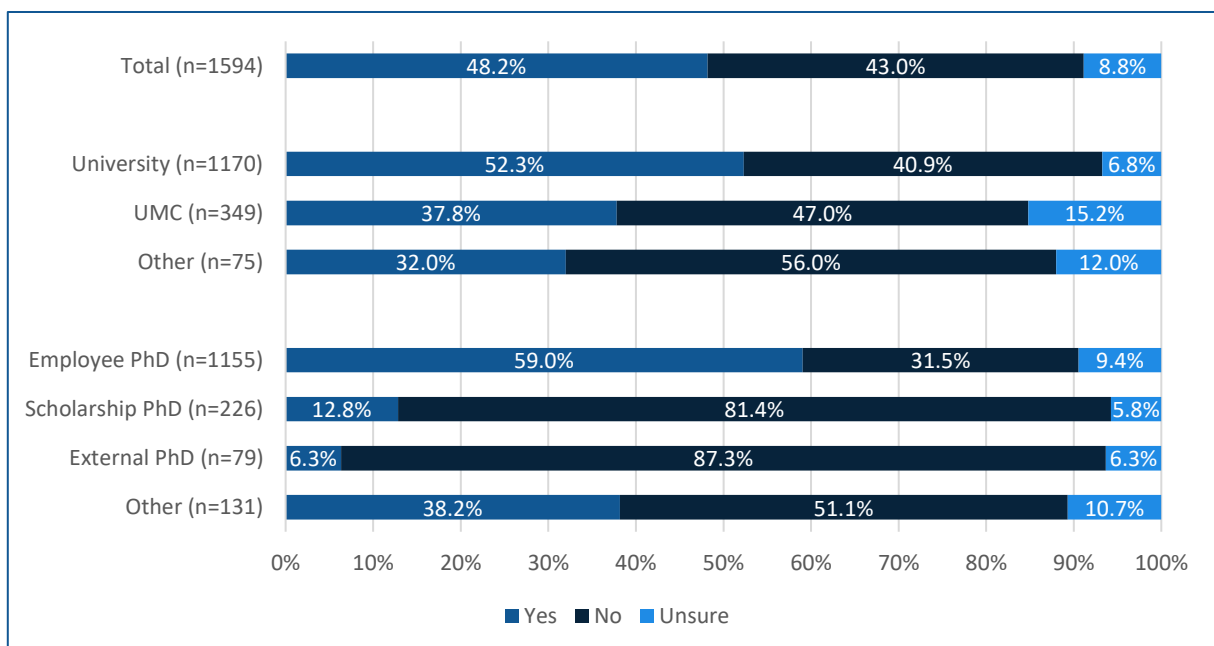


Figure 1.1: Responses to the question "According to your agreement, do you have to teach alongside your research?".

Teaching: agreement versus practice

Looking at the extent to which PhDs teach in practice, regardless of whether they have to teach according to their agreement, we see in figure 1.2 that 66.6% of the PhDs (n=1,058) indicate that they teach in practice. This is much more than the 48.1% of PhDs that indicated to have to teach according to their agreement.

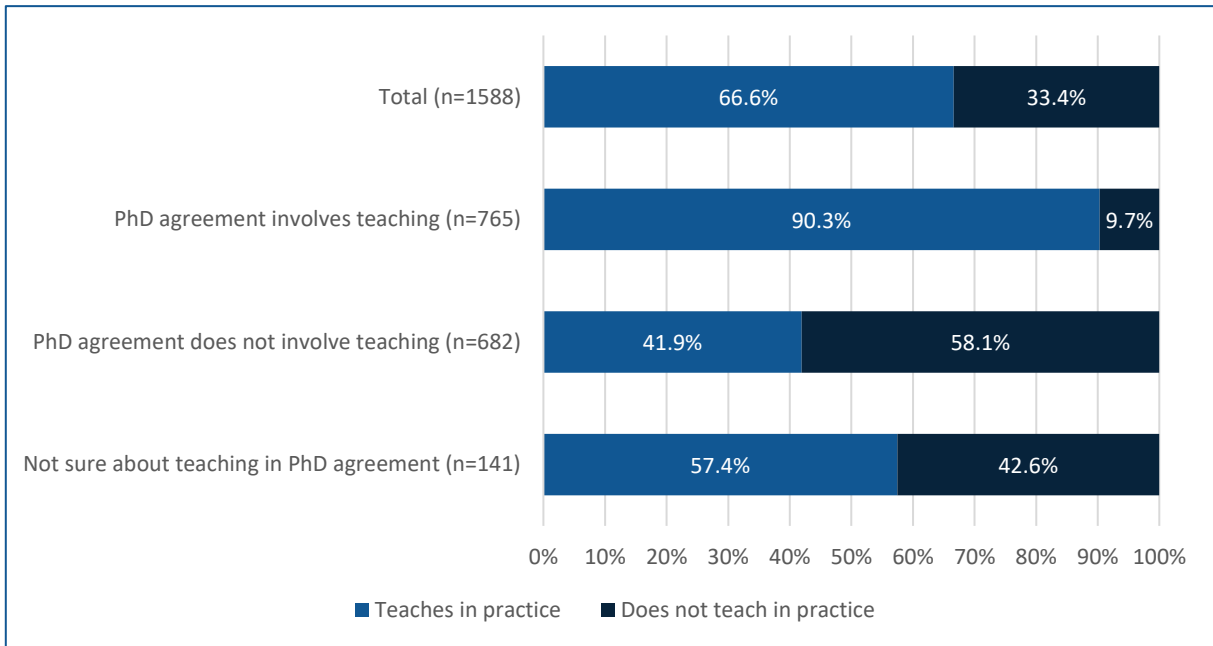


Figure 1.2: Responses to the question "Do you actually spend time teaching?", per requirement to teach according to PhD agreement.

Furthermore, figure 1.2 shows the extent to which the teaching requirement according to the PhD agreement relates to whether PhDs teach in practice. The results show that the large majority of PhDs who have to teach according to their agreement also teach in practice (90.3%). However, 41.9% of the PhDs who do not have to teach according to their agreement do however teach in practice. Of the PhDs who are unsure whether they have to teach according to their agreement, 57.4% do carry out teaching tasks in practice.

Type of institution

Between the types of institutions, there are some differences in the extent to which PhDs teach in practice (figure 1.3). At Universities, 68.9% of PhDs teach in practice, whereas at UMCs, 61.1% of the PhDs indicate that they teach in practice. PhDs at other types of institutions teach least often, but even there, still more than half of the PhDs carry out teaching tasks in practice (56%).

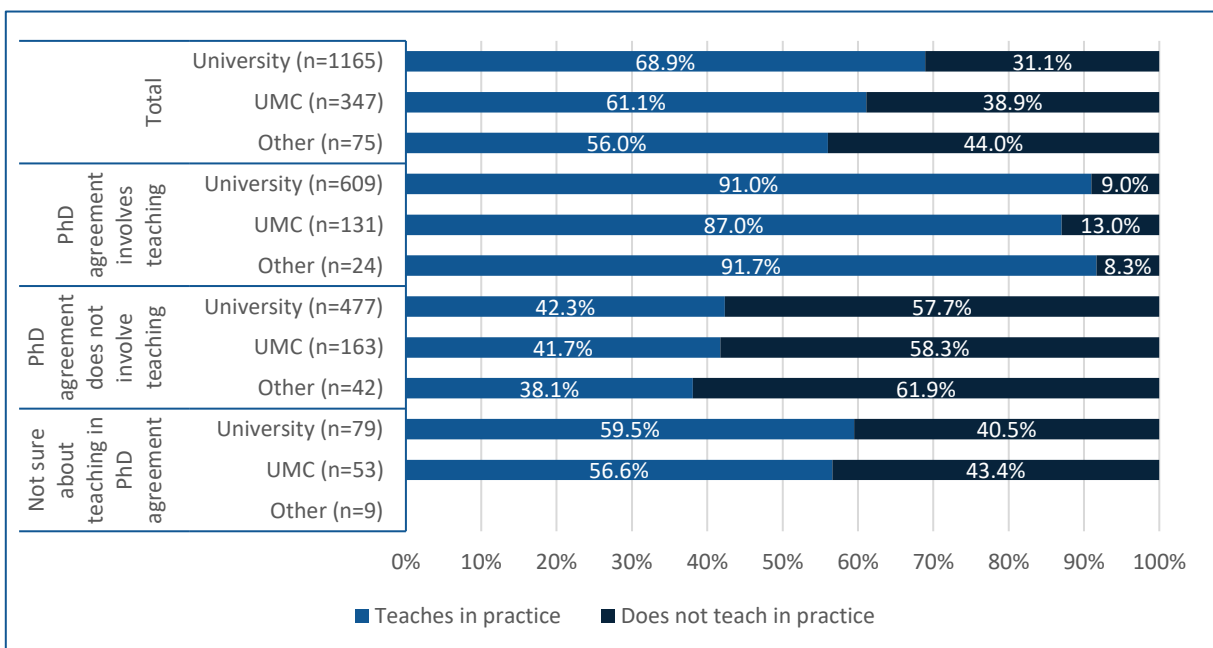


Figure 1.3: Responses to the question "Do you actually spend time teaching?", per type of institution combined with the extent to which PhDs have to teach according to their agreement.

The differences between institutions are not too large when it comes to the relation between teaching according to the agreement and actual teaching in practice. At all types of institutions, the majority of PhDs who have to teach according to their agreement also teach in practice, and at all types of institutions, between 38.1% and 42.3% of PhDs who do not have to teach according to their agreement do teach in practice. For those who are unsure about whether they are required to teach according to their agreement, 59.5% of PhDs at universities and 56.6% of PhDs at UMCs teach in practice. The category combination of unsure and other type of institution is not included due to a small number of respondents (n=9).

Type of PhD arrangement

There are also large differences between types of PhDs when it comes to teaching in practice (figure 1.4). Employee PhDs teach most in practice (74.5%), followed by other types of PhDs (55.6%). However, a relatively large proportion of scholarship PhDs often teach in practice too (44.8%). External PhDs least often teach in practice (34.2%). As individuals who teach usually should get an employment contract, it is surprising that many scholarship PhDs and external PhDs indicate that they carry out teaching tasks in practice.

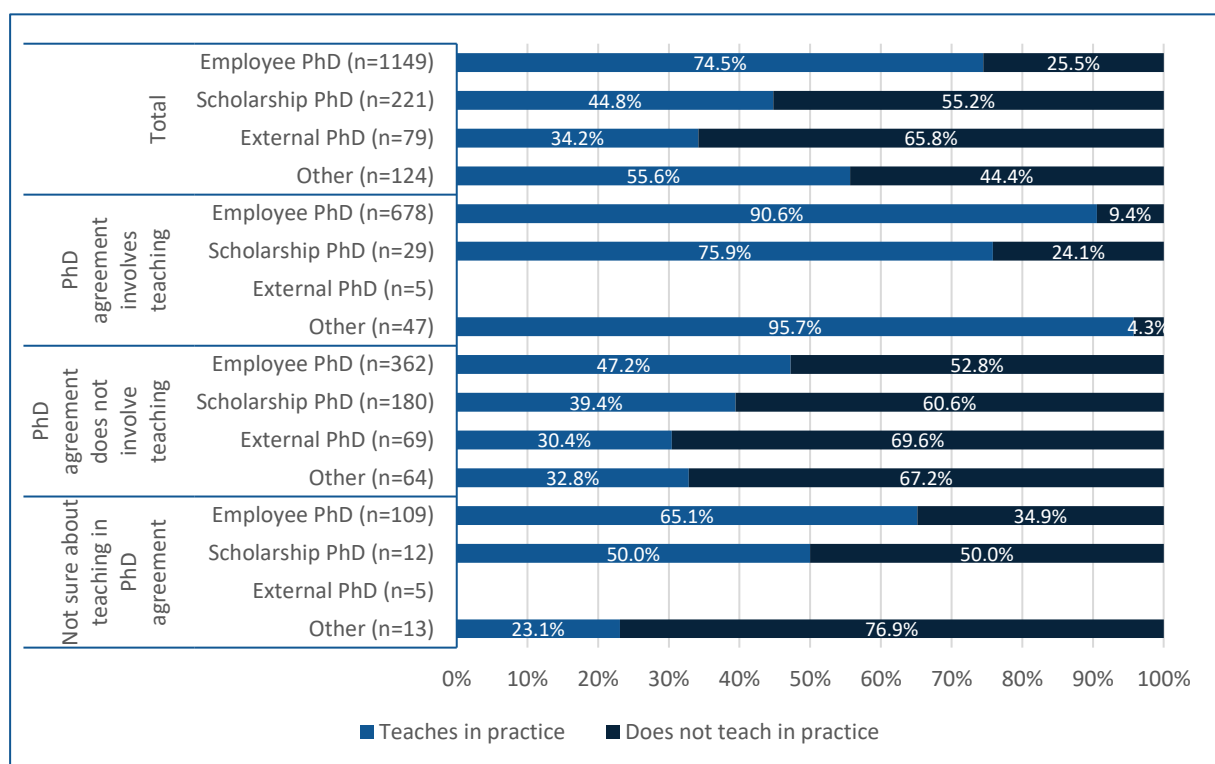


Figure 1.4: Responses to the question "Do you actually spend time teaching?", per type of PhD arrangement, combined with the extent to which PhDs have to teach according to their agreement.

The results also show differences between PhD arrangements when examining the relation between teaching responsibilities as per the agreement, and actual teaching in practice. Of all employee PhDs who have to teach according to their agreement, 90.6% teach in practice, whereas for scholarship PhDs, this is only the case for 75.9% who state that they have to teach according to their agreement. For other types of PhDs, 95.7% also teach in practice. The results for external PhDs who have to teach according to their agreement are not included due to a small number of respondents in this category.

Compared to scholarship PhDs and external PhDs, employee PhDs are asked more often to teach in practice when they do not have to teach according to their agreement (47.2%). Still, 39.4% of the scholarship PhDs and 30.4% of the external PhDs who do not have to teach according to their agreement in practice do carry out teaching tasks. Of the PhDs who are unsure whether they have to teach according to their agreement, employee PhDs most often teach in practice (65.1%), followed by scholarship PhDs (50%). Other types of PhDs who are

unsure whether they have to teach according to their agreement least often teach in practice (23.1%). Results for external PhDs who are unsure whether they have to teach according to their agreement are not included due to a small number of respondents in this category.

Additional remuneration for PhDs who teach outside of their agreement

As discussed above, 41.9% of the PhDs who do not have to teach according to their agreement, do carry out teaching tasks in practice. This means that they are carrying out additional tasks. PhDs should be remunerated for these additional tasks, especially when PhDs are not formally employed by the university or UMC.

The PhDs who stated they do not have to teach according to their agreement, but who do teach in practice, were asked whether they get paid for these tasks. The responses to this question can be found in figure 1.5. The large majority of these PhDs (86.4%, n=247) do not get paid for additional teaching tasks. Only 13.6% get paid to teach.

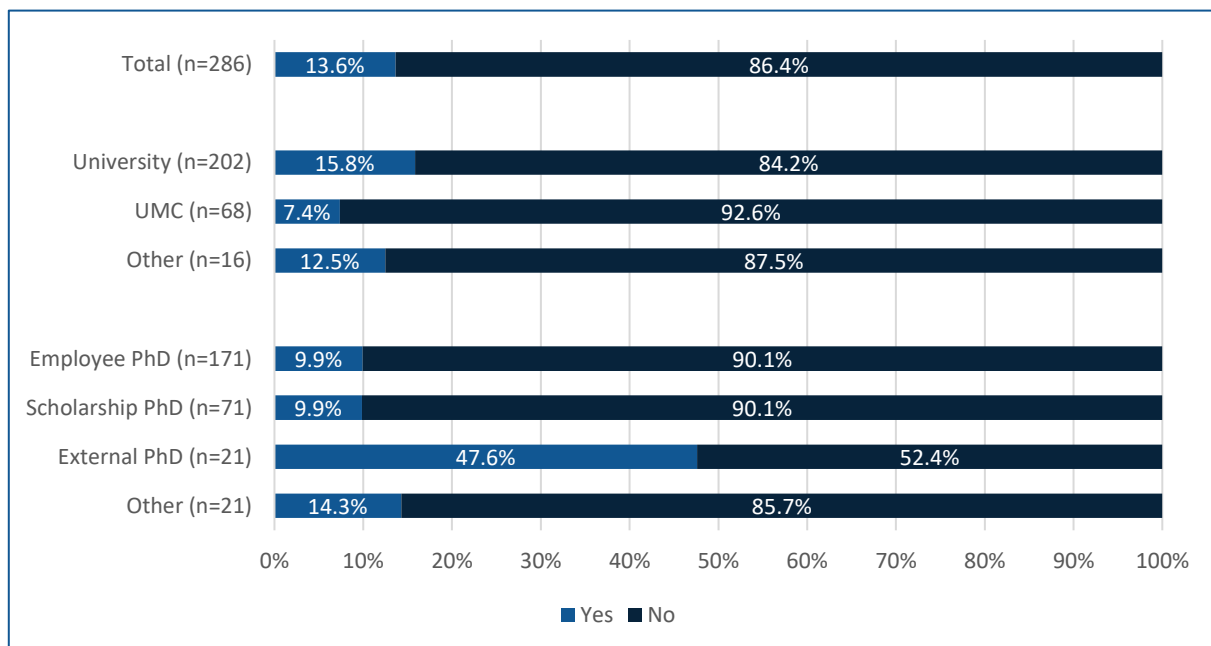


Figure 1.5: Responses to the question: "Do you get paid extra to teach?", in total, per type of institution and type of PhD arrangement.

The extent to which PhDs are remunerated for their out-of-agreement teaching differs slightly per type of institution. At universities, PhDs are remunerated relatively often for their out-of-agreement teaching tasks (15.8%), while this happens least at UMCs (7.4%). At other types of institutions, 12.5% of the PhDs were remunerated for their additional teaching tasks.

The differences between types of PhDs in the extent to which they are remunerated for out-of-agreement teaching tasks are much larger. Employee PhDs and scholarship PhDs are least often remunerated for teaching outside of their agreement (both 9.9%), whereas this is relatively often the case for external PhDs (47.6%). Other types of PhDs are also often not remunerated (14.3%).

These results indicate that universities and UMCs often benefit from PhDs carrying out teaching tasks without remunerating them. Of all PhDs who teach, 23.3% do not get paid for their teaching.

Wanting to teach for non-teaching PhDs

Because teaching experience is valuable for PhDs who wish to pursue a career in academia, we asked PhDs who do not carry out teaching tasks in practice whether they would have liked to teach. They could indicate their teaching preference on a 5-point scale ranging from "Definitely not" to "Definitely yes".

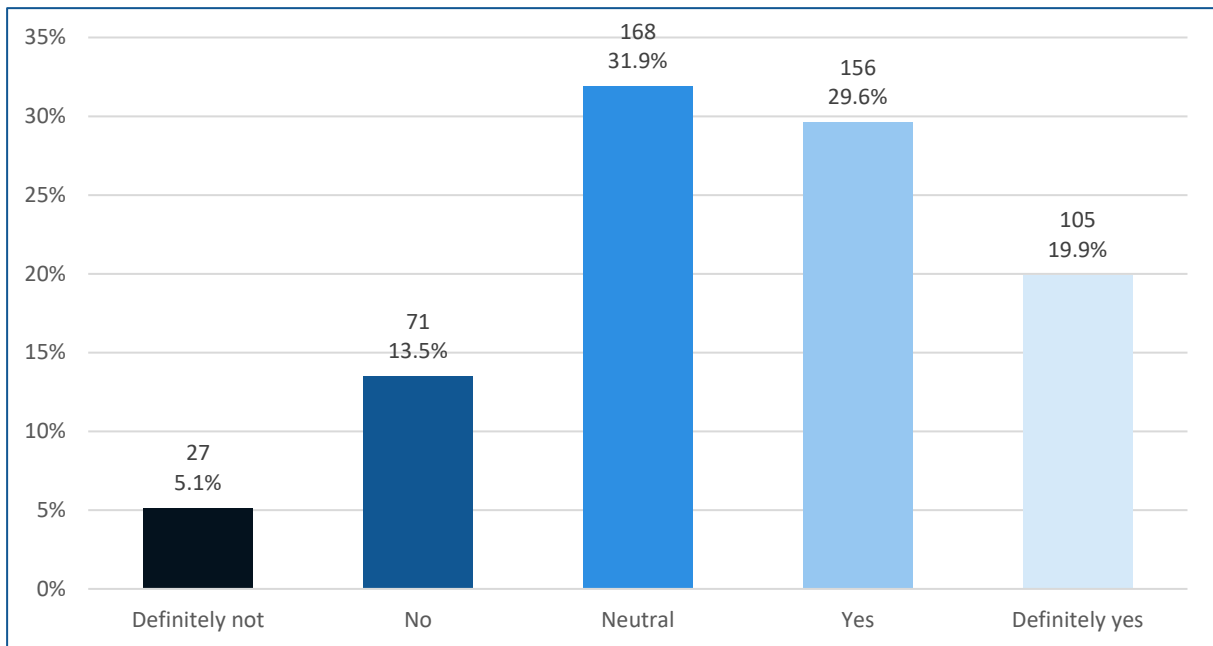


Figure 1.6: Responses to the question "Would you have liked to teach?" (mean: 3.45, standard deviation 1.11).

The responses to this question can be found in figure 1.6. 49.5% of the PhDs indicate that they would have liked to teach, of which 19.9%-point responds with "Definitely yes" to the question. 18.5% of the PhDs would not have liked to teach, of which 5.1%-point even indicates that they "definitely not" would have liked to teach. 31.9% of the PhDs is neutral about whether they would have liked to teach. The mean score on this indicator is 3.45, with a standard deviation of 1.11.

Between types of institutions (figure 1.7), PhDs from universities and UMCs score similar on the question whether they would have liked to teach (3.48 and 3.50 respectively). PhDs at other types of institutions score quite a bit lower (3.03), but due to the relatively low number of respondents in this group, this difference is not significant.

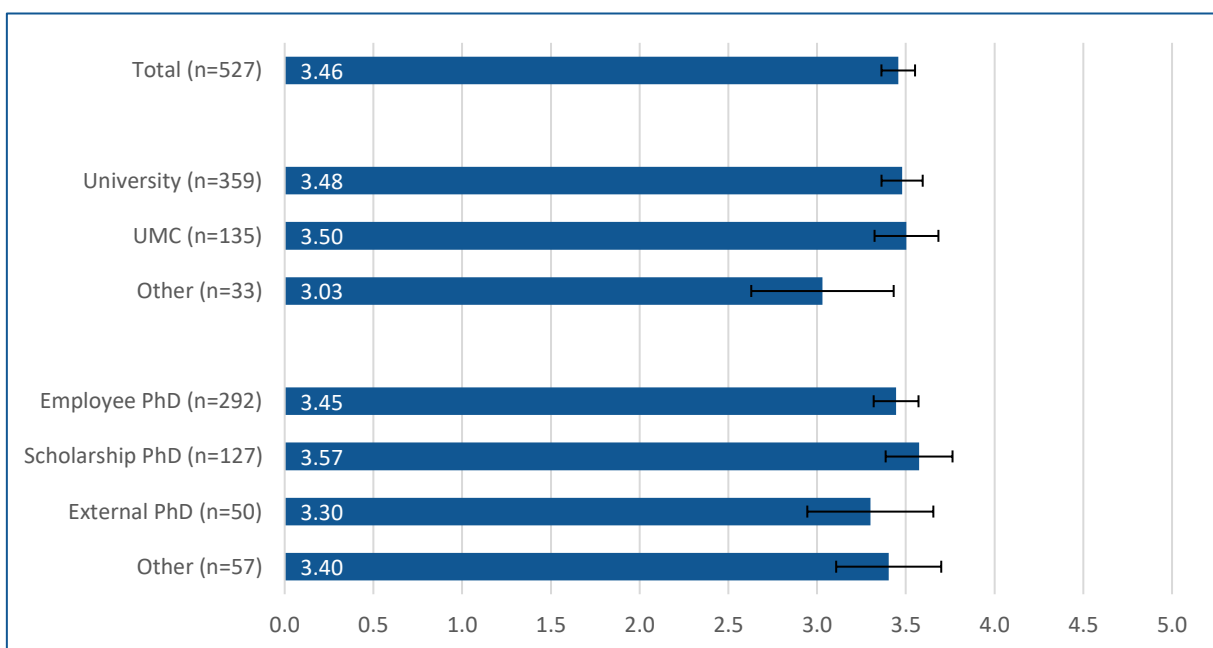


Figure 1.7: Responses to the question: "Would you have liked to teach?", in total, per type of institution and per type of PhD arrangement.

Similarly, there are no large differences between PhDs from different PhD arrangements in the extent to which they would like to teach. Although scholarship PhDs most often indicate to want to teach and external PhDs least often indicate to want to teach, the difference between these scores is relatively small and not significant.

Teaching load: agreement and practice

The PhDs who indicated that they have to teach according to their agreement were asked to indicate what percentage of their time they were required to spend on teaching. Furthermore, all PhDs who teach in practice were asked to indicate what percentage of their time they spend on teaching. These questions do not have an equal number of respondents: PhDs who have to teach according to their agreement but do not teach in practice did not get to answer the question about how much time they in practice spend on teaching, and PhDs who do not have to teach according to their agreement but do teach in practice did not get to answer the question about how much time they have to spend on teaching according to their agreement. Scores of 0 on these variables were labelled as missing. As these questions were only asked to respondents who indicated that they have to teach according to their agreement or that they teach in practice respectively, we assume that a score 0 is more likely to indicate that they did not know the answer to the question rather than that a mistake was made in the preceding question (especially considering respondents could go back in the survey to correct their answers). The responses to both questions were categorized for visualisation.

The responses to these questions can be found in figure 1.8. On average, PhDs have to spend 15.6% of their time on teaching, with a standard deviation of 9.51. The largest group of PhDs (49.1%) has to spend 10% of their time on teaching. The second largest group (20.3%) indicates that they have to teach 20% of their time. 14% of the PhDs have to spend more than 20% of their time on teaching, and 6.6% less than 10% of their time, of which 3.1%-point even indicate 5% or less. 10% has to spend between 11% and 19% of their time on teaching.

The mean percentage of time actually spent on teaching is, however, significantly higher. PhDs indicate that they actually, on average, 18.3% of their time on teaching, with a standard deviation of 13.71. This is 2.7%-point more, or in relative terms, 17.2% more than they should according to their agreement. Again, the largest group indicates that, in practice, they spend 10% of their time on teaching (21%). This percentage is however much lower than the share of PhDs indicating that they have to teach 10% of their time according to their agreement

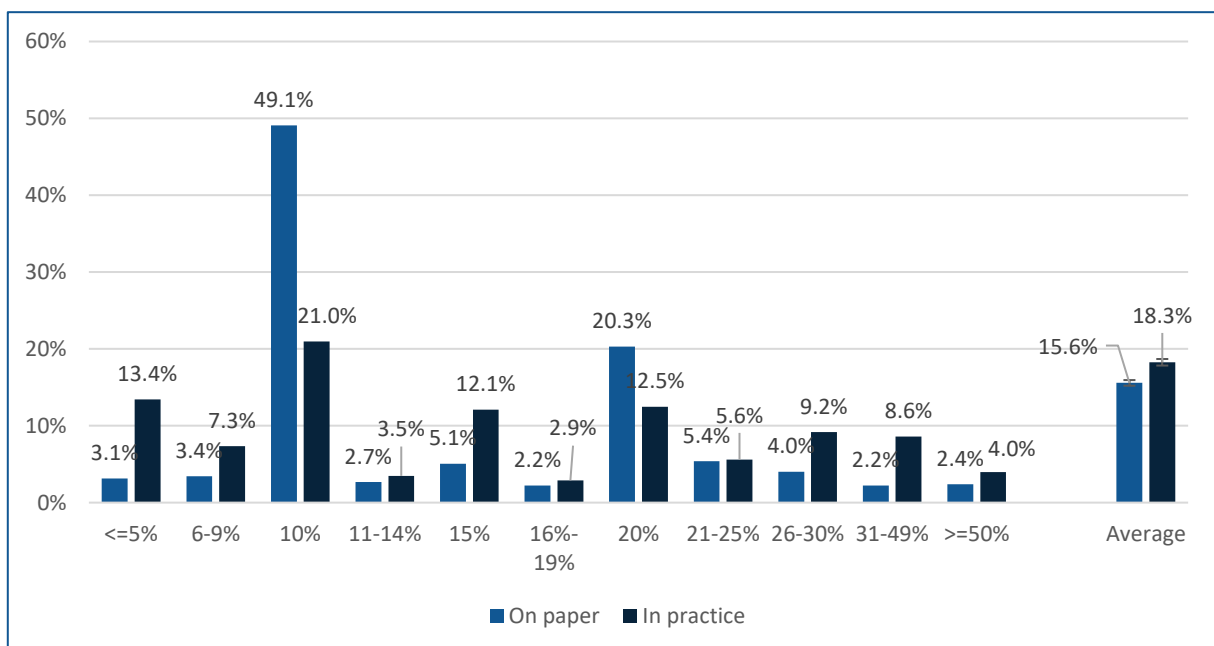


Figure 1.8: Responses to the questions "What percentage of your time should you, according to your contract, spend on teaching? - According to contract?" (n=670, mean=15.6, standard deviation=9.51) and "What percentage of your time do you in practice spend on teaching? - In practice?" (n=1,035, mean=18.3, standard deviation=13.71).

(49.1%). The second largest group (13.4%) indicates that in practice they spend 5% or less of their time on teaching in practice and, ranking third, 12.5% indicate spending 20% of their time on teaching. 27.3% indicate that in practice they spend more than 20% of their time on teaching in practice. 18.5% spend between 11% and 19% of their time on teaching, and 7.3% between 6 and 9%.

It is difficult to make any claims about whether PhDs teach more or less than required based on these numbers alone. For PhDs who have to teach according to their agreement and do indeed teach in practice, we compared the scores on these two variables to indicate to what extent they spend more or less time on teaching. The extent to which they teach more or less than the required amount is expressed in percentages relative to the required amount of time spent on teaching. This way, we can indicate the relative increase or decrease of the teaching load. These results can be found in figure 1.9.

On average, PhDs spend 39.3% more time on teaching in practice than they should according to their agreement, with a standard deviation of 68.07. The largest group of PhDs teach exactly

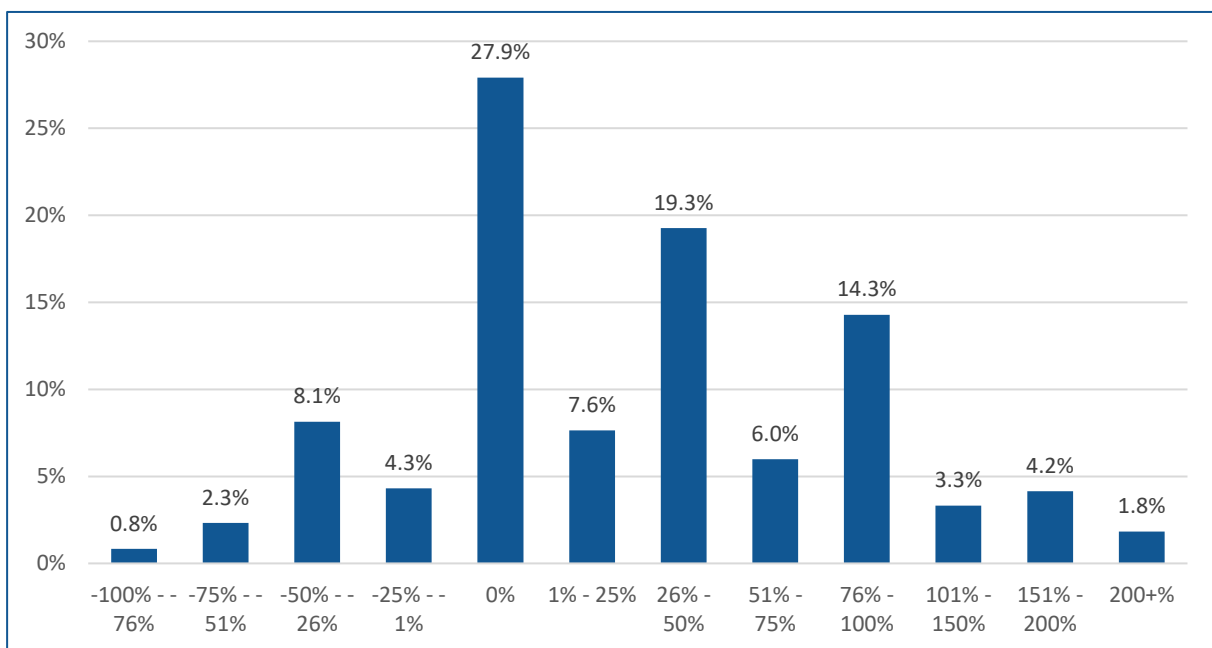


Figure 1.9: Relative difference in percentage between the time in practice spent on teaching compared to the time required to spend on teaching according to the agreement (n=602, mean=39.33, standard deviation=68.07).

the required amount in practice (28.2%). 15.6% teach less than the required amount, with 4.7%-point of this group teaching around 50% less than they should according to their agreement. A large group (56.5%) however indicates that they teach more than they should according to their agreement. Interestingly, these are not just small amounts of more time spent on teaching: 7.6% teach between 1 and 25% more than they should according to their agreement, whereas 19.3% teach between 26 and 50% more than they should. In total, 29.6% of the PhDs spend more than 50% more time on teaching than they are required to according to their agreement, and 9.3%-point of them indicate that they spend more than double of their time on teaching than they are required to.

Satisfaction with teaching load

To assess whether PhDs are happy with their teaching load, we asked them whether they are happy with the percentage of time that they spend on teaching in practice. This question was asked to all PhDs who actually carry out teaching tasks. They could answer on a 5-point scale, ranging from “Very satisfied” to “Very dissatisfied”. For the analysis, the scale was recoded in such a way that a higher score on the scale indicates higher satisfaction with the teaching load.

The responses to this question can be found in figure 1.10. The mean score on this indicator is 3.61, with a standard deviation of 0.97. The majority of PhDs is satisfied with their teaching load (59.6%), of which 17.3%-point is very satisfied with the teaching load. 15.7% of the PhDs are dissatisfied with their teaching load, of which 2.1%-point is very dissatisfied. 26.8% is neither satisfied nor dissatisfied with their teaching load.

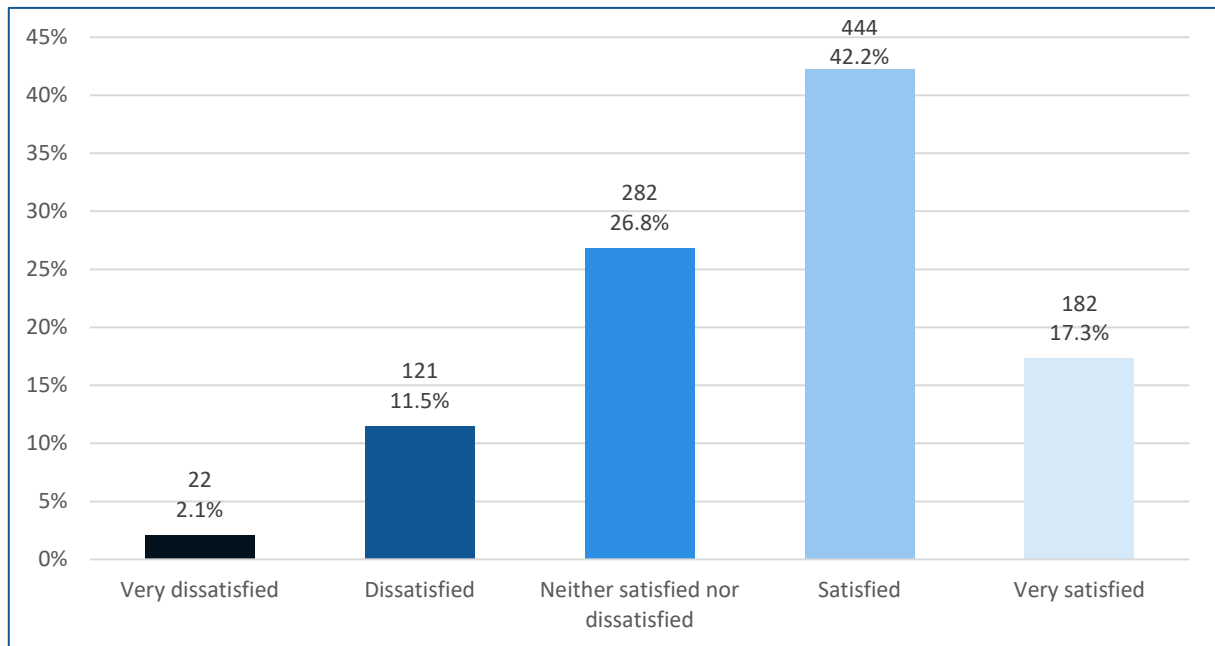


Figure 1.10: Responses to the question: "Are you happy with the percentage of time that you in practice spend on teaching?" (n=1,051, mean=3.61, standard deviation=0.97).

We expect the satisfaction with the teaching load to be related to the teaching load in practice, as well as the difference between the teaching load according to the agreement and the teaching load in practice. We therefore plotted the mean scores on satisfaction with the teaching load for the different levels of teaching load in practice (figure 1.11) and the relative difference between the teaching load in practice and the teaching load according to the agreement (figure 1.12). In the figure 1.11, the group of PhDs who teach 100%-75% less than their agreement are not included due to a low number of respondents in this category. Using the continuous versions of these variables, we also calculated the correlations with satisfaction.

Figure 1.11 shows that the higher the teaching load in practice, the less satisfied PhDs are with their teaching load. PhDs who teach 5% of their time or less score 4 on satisfaction, while PhDs who have to teach more than 50% of their time only score 2.8. From a teaching load of 15% onward, satisfaction with the teaching load is significantly lower than the satisfaction of PhDs who teach 5% or less. PhDs with a teaching load of more than 15% are also significantly less satisfied than PhDs with a teaching load of 10%. For the interested reader: the correlation between teaching load in practice and satisfaction with teaching load is -0.358, which is significant at the 0.001-level.

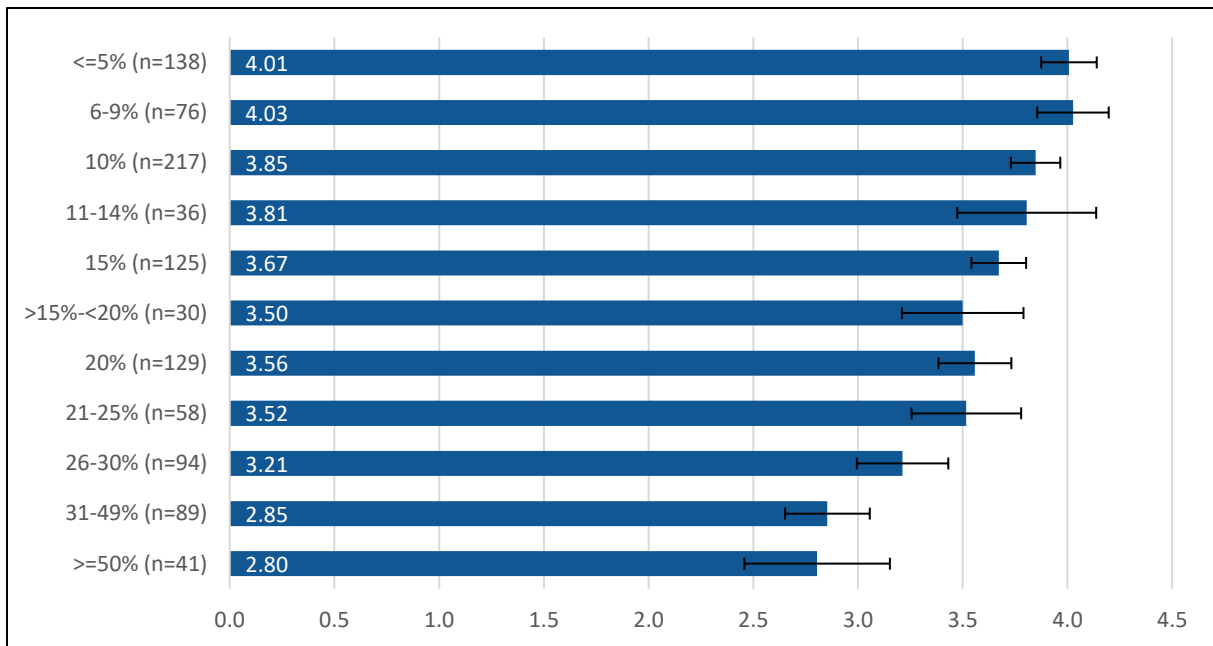


Figure 1.11: Responses to the question "Are you happy with the percentage of time that you in practice spend on teaching?" per category of teaching load in practice (n=1,033).

In figure 1.12, we see a similar pattern. The higher the teaching load in practice relative to the teaching load as per the agreement, the less satisfied PhDs are with their teaching load. PhDs who teach the same amount of time in practice as is agreed upon, score 3.9 on satisfaction. PhDs who teach less than required are usually equally satisfied with their teaching load, but PhDs who teach more than 50% less than required are significantly more satisfied with their teaching load. However, PhDs who teach 1%-25% more than required are already significantly less satisfied than PhDs who teach the exact amount that is required. The higher this difference, the less satisfied PhDs are, with PhDs teaching more than 75% more than required score only a 3, and PhDs teaching more than 200% more than required score a mere 2.3. The correlation between the relative difference between the teaching load in practice and the teaching load according to the agreement is -0.393, which is significant at the 0.001-level.

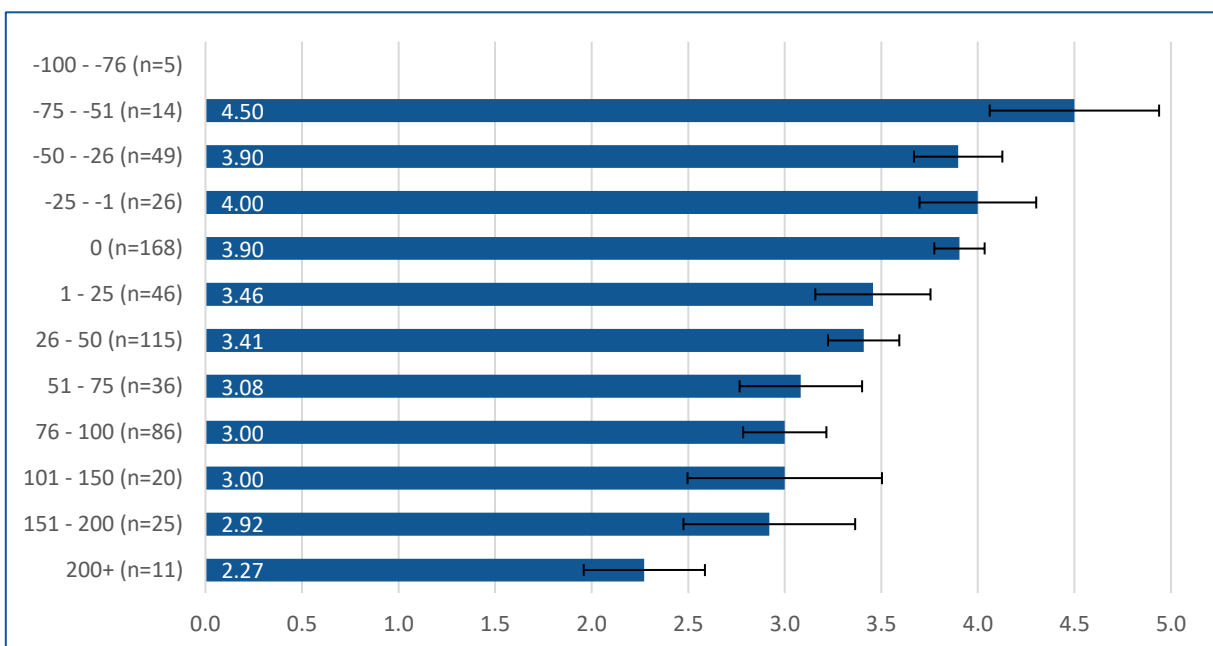


Figure 1.12: Average scores on the question "Are you happy with the percentage of time that you in practice spend on teaching?" per category of relative difference (in %) between teaching load in practice and teaching load according to the agreement (n=601).

Teaching responsibilities

Finally, we were interested in what type of responsibilities PhDs have as part of their teaching tasks. They could choose multiple options from a list of nine, presented in figure 1.13. The most mentioned responsibilities are teaching tutorials (60.6%) and supervising Master's theses (59.3%). Supervising Bachelor's theses and grading are also common teaching responsibilities (53.9% and 50.8% respectively). Conducting exams is the least common type of responsibilities (24.9%), and 15.4% of the PhDs indicate that they also have other types of responsibilities. As other types of responsibilities, teaching practicals is often mentioned, as well as supervising and course coordination.

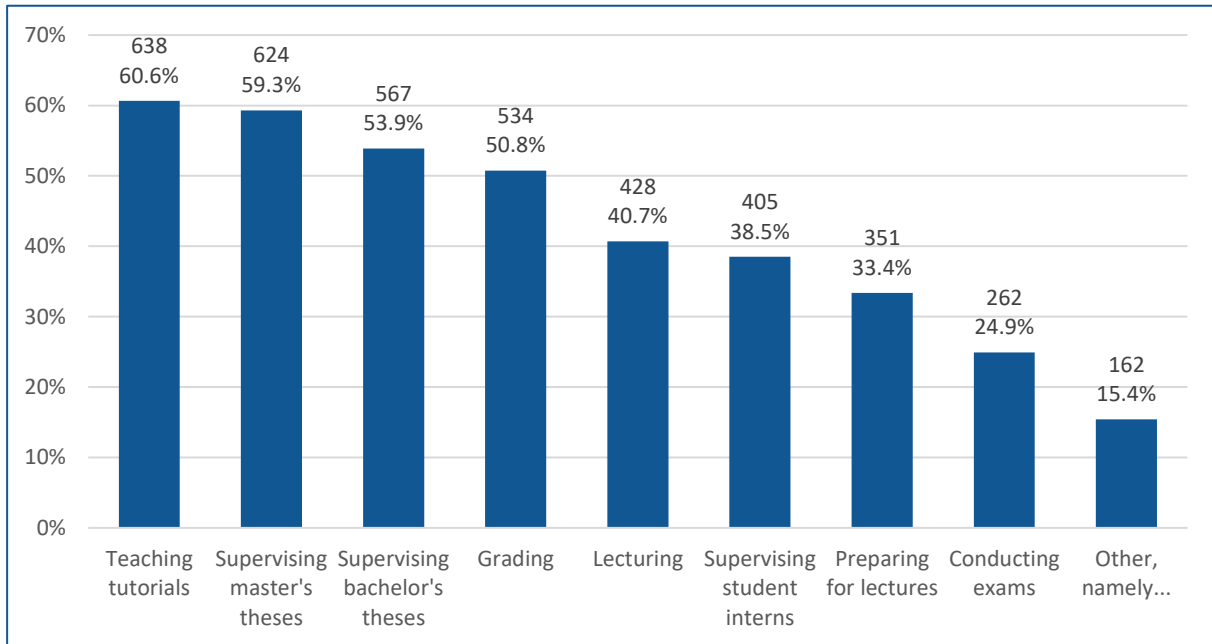


Figure 1.13: Responses to the question: "What is part of your teaching responsibilities?" (n=1,052).

Looking at how many responsibilities PhDs select on average (figure 1.14), we see that PhDs on average select 3.77 responsibilities, with a standard deviation of 1.78. Most PhDs indicate that they have three types of teaching responsibilities (23.4%), followed by 4 (18.7%) and 5 (15.4%). The number of responsibilities also depends on whether PhDs are required to teach according to their agreement, and per type of PhD arrangement (figure 1.15). PhDs who have to teach according to their agreement have selected the highest number of responsibilities (4.1), while PhDs who do not have to teach according to their agreement, but do teach in practice, selected only 3.2 types of responsibilities on average, as well as PhDs who are unsure whether they have to teach according to their agreement.

PhDs at universities and other types of institutions indicate having the highest number of teaching responsibilities (4), whereas PhDs at UMCs have relatively few teaching responsibilities (3.1). Regarding the type of PhD arrangements, other types of PhDs and employee PhDs selected the highest number of types of responsibilities (4.1 and 3.8 respectively), whereas scholarship PhDs only selected 3.1 types of responsibilities on average. External PhDs indicate to have on average 3.6 types of responsibilities.

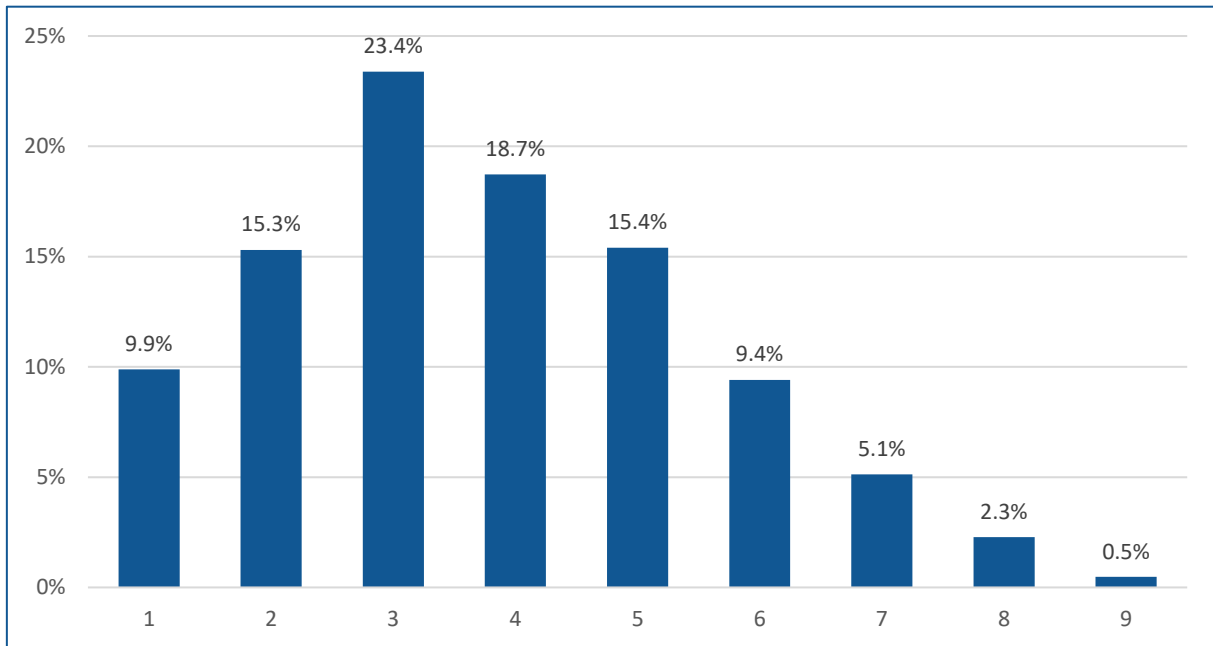


Figure 1.14: Number of teaching responsibilities selected by the PhDs who teach in practice ($n=1,052$, mean=3.77, standard deviation=1.78).

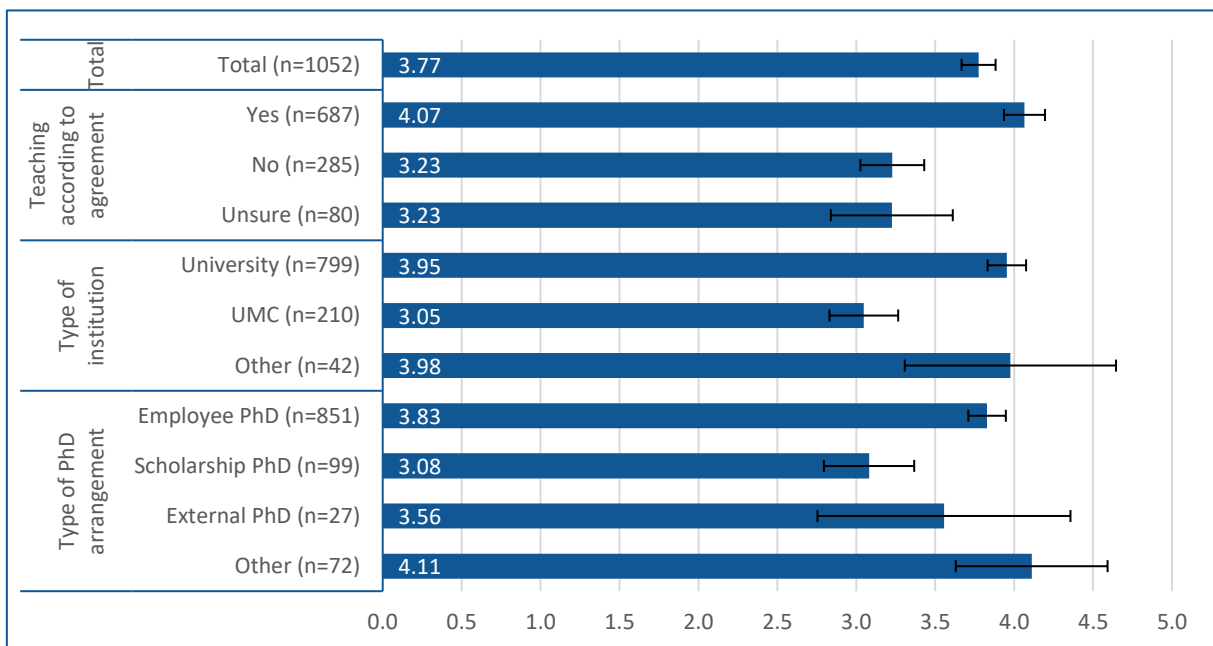


Figure 1.15: Mean number of teaching responsibilities, in total, dependent on whether PhDs have to teach according to their agreement, per type of institution and per type of PhD arrangement.

Figure 1.16 also shows which types of responsibilities are selected depending on whether PhDs have to teach according to their agreement. Here, we see that PhDs who do not have to teach according to their agreement less often have the four responsibilities most commonly indicated. In contrast, they indicate lecturing, supervising student interns and preparing for lectures.

Looking at differences in the type of teaching responsibilities per type of institution (figure 1.17), PhDs at universities relatively often teach tutorials, supervise Bachelor's and Master's theses and grade exams, whereas PhDs at UMCs relatively often supervise student interns and Master's theses. PhDs at other types of institutions relatively often lecture, supervise student interns and prepare for lectures.

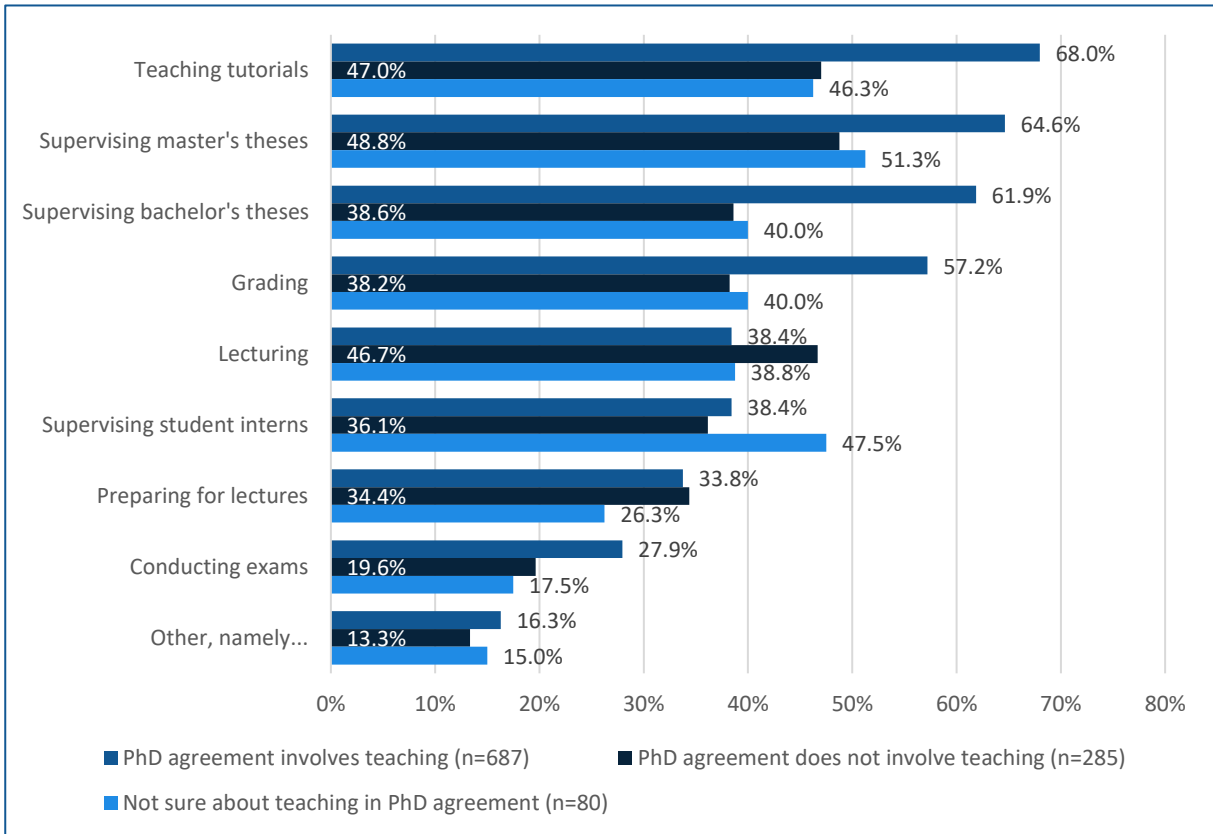


Figure 1.16: Responses to the question: "What is part of your teaching responsibilities?", dependent on the extent to which PhDs have to teach according to their agreement.

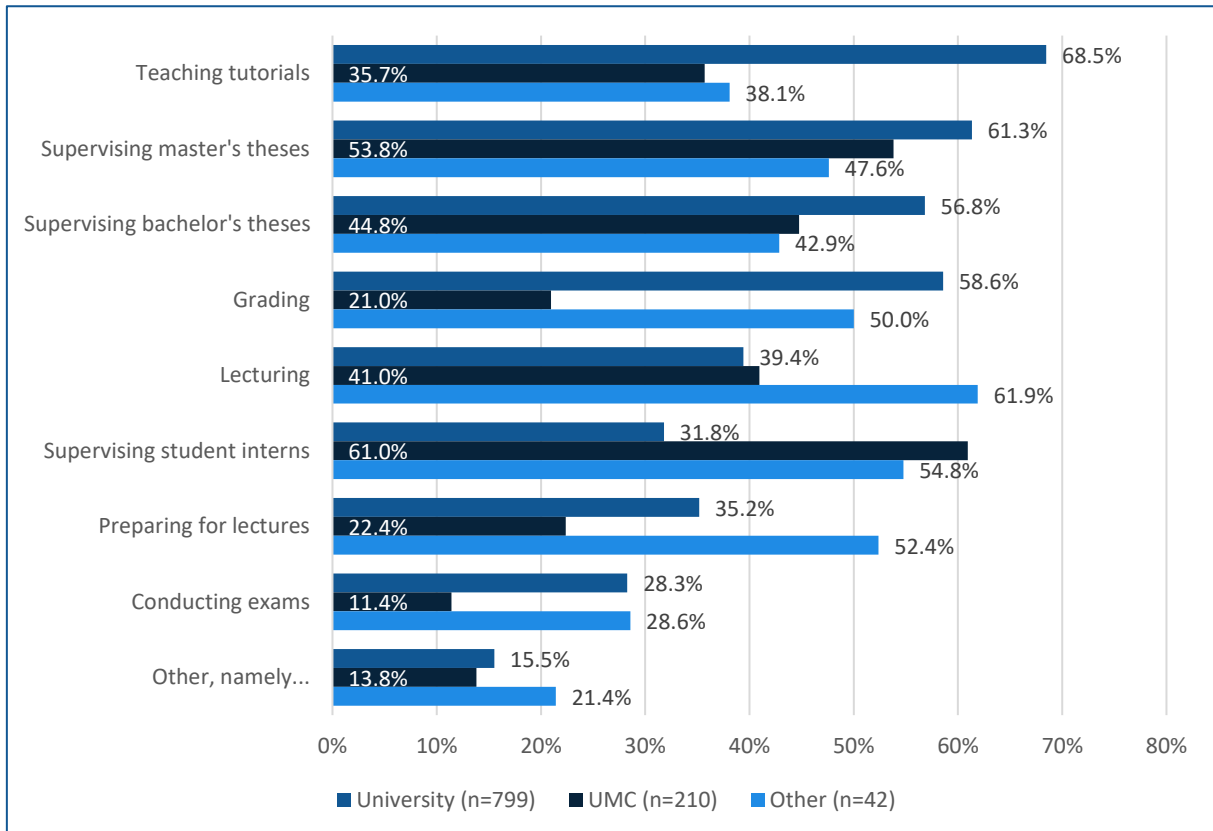


Figure 1.17: Responses to the question: "What is part of your teaching responsibilities?", per type of institution.

In figure 1.18, we can see that there are some differences between PhD arrangements with regards to the types of teaching responsibilities they have. The four most common responsibilities are commonly indicated by employee PhDs compared to the three other types of PhDs. External PhDs relatively often lecture, prepare for lectures and conduct exams, while other types of PhDs relatively often supervise student interns, lecture, prepare for lectures and teach tutorials. Scholarship PhDs mostly indicate to supervise Master's theses and teach tutorials. There are no responsibilities that scholarship PhDs have more often than the three other types of PhDs, which is likely due to the fact that scholarship PhDs on average have fewer types of teaching responsibilities than PhDs in different arrangements.

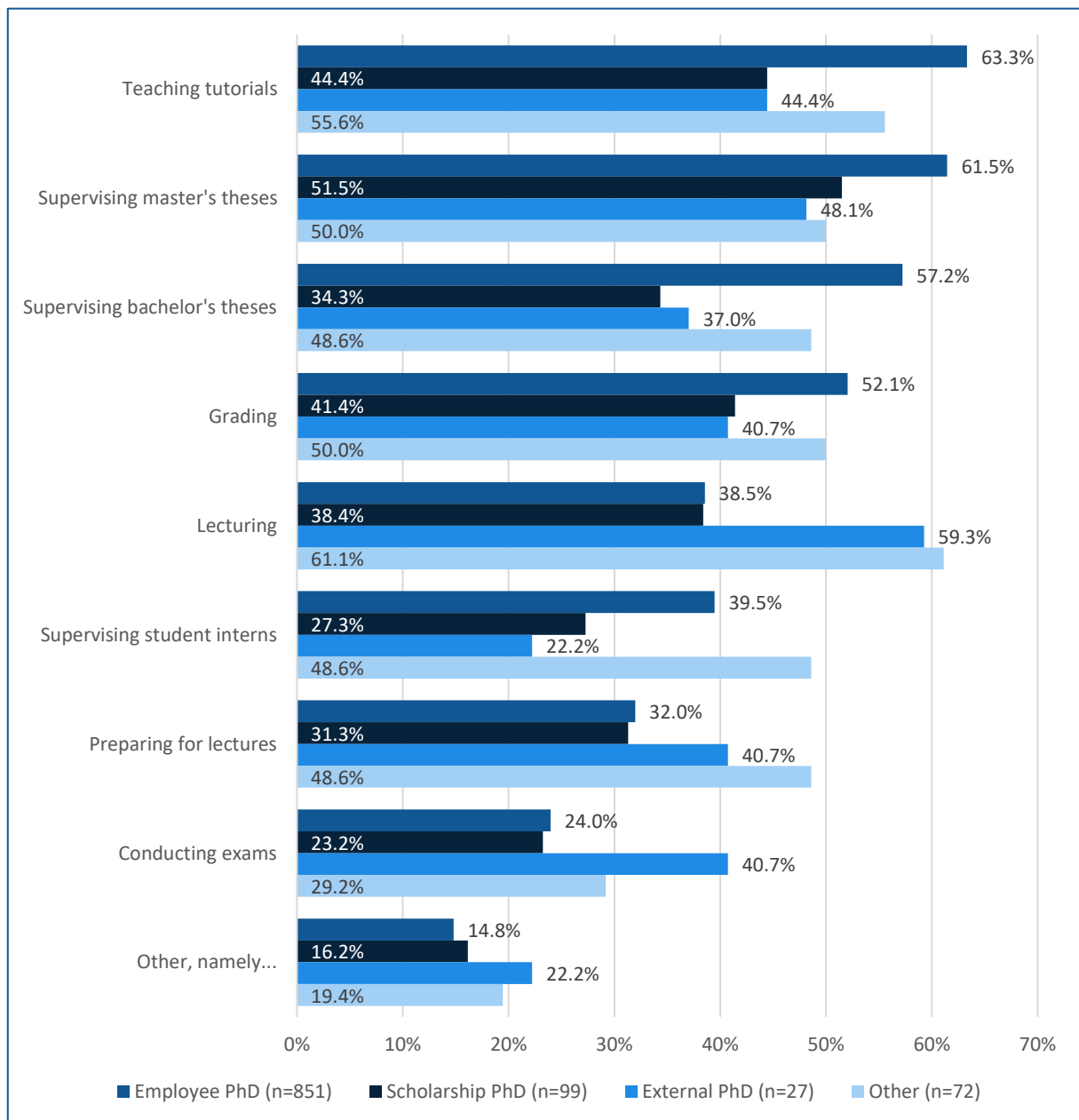


Figure 1.18: Responses to the question: "What is part of your teaching responsibilities?", per type of PhD arrangement