Equal Salary for Equal Work at D-ERDW?

Sascha Winterberg¹, Max Mandl²

¹Geological Institute, ETH Zürich, Sonneggstrasse 5, 8092 Zürich, Switzerland
²Institute of Geochemistry and Petrology, ETH Zürich, Clausiusstrasse 25, 8092 Zürich

Correspondence to: Sascha Winterberg (sascha.winterberg@erdw.ethz.ch)


Abstract. Differences in salaries for doctoral students at ETH Zürich have been the subject of recent discussions at the department of Earth Sciences (D-ERDW). An ETH-wide salary rate system with 5 rates ranging from approximately 47'000 CHF per year to approximately 80'000 CHF per year was adapted in 2015. D-ERDW decided to pay all its students at the lowest salary rate 1. To understand inter-departmental salary differences, a working group at the Department of Earth Sciences started to investigate details about income among doctoral students. The result of this salary investigation is that salaries do not just vary widely between departments, but that salaries below rate 1 continue to exist at D-ERDW. Based on data collected by AVETH and from the ETHIS database, annual salaries doctoral students at D-ERDW are approximately 14'000 CHF below the ETH average for doctoral students. In addition, the data unveiled that more than 30% of the doctoral students do not receive a salary from ETH but a foreign stipend, and their income amounts to half of salary rate 1 despite their status as doctoral students at D-ERDW. These foreign stipends do not fulfil the requirements of the ordinance about scientific staff at ETH.

Introduction

The Academic Association of Doctoral Students and Academic Staff at ETH (AVETH) conducted a survey on salary and duties of ETH doctoral students in 2014. One of the key findings of the survey was large discrepancies among the salaries ETH paid to doctoral students. These stark differences in income were the starting point of various ETH-wide initiatives and panel discussions meant to explore the reasons for the salary rates. AVETH conducted a follow-up survey in 2016 that confirmed the findings.

The Swiss National Science Foundation (SNSF) requires a minimum wage for doctoral students. This minimum is implemented by ETH with salary rate 1 that is equal to an annual wage of 47’040 CHF in the first year of the degree, 48’540 CHF in the second and 50’040 CHF in the subsequent year(s). In an average over the standard duration of a doctoral degree (4 years), this equals 48’915 CHF per year. The same average is 62’738 CHF per year for salary rate 3 and 75’307 CHF per year for salary rate 5. In the course of a doctoral student’s successful 4-year tenure at ETH, the different salary rates result in 110’000 CHF of additional income of anyone paid at salary rate 5 over anyone paid at salary rate 1. Students with a Chinese Scholarship, which is one common type of foreign scholarship at ETH, receive 22’800 CHF per year.

Based on the presentation of the aforementioned discrepancies by a group of doctoral students at the D-ERDW Mittelbau (VAME) meeting in spring 2017, a proposal was accepted to form a working group to investigate the salary situation at the department in more detail. The group was tasked (1) to determine the actual income of ETH-funded doctoral students at D-ERDW, (2) to suggest ways to implement a recommendation by the ETH doctoral administration that demands the equal distribution of assistant duties or additional payment in the case of a heavy load of assistant duties, and (3) to investigate the situation and prevalence of people who are paid through foreign scholarships and are paid less than salary rate 1. In agreement with the proposal and with permission from the head of the department, Tim Eglinton, the D-ERDW salary working group began its work. The findings of the working group as of right now are summarized in this publication. Any parallel initiatives underway in other departments are not documented here.
Base for Salary Statistics

Limitations and data base

In accordance with the VAME proposal, the statistics presented in this publication cover all doctoral students who receive a doctoral degree in Earth Sciences from ETH Zürich, including those who have additional associations with eawag, PSI, and the Max Planck institute in Mainz. The numbers we present do not include academic guests and students who receive doctoral degrees from other institutions, not even those who spend the entire tenure of their non-ETH doctorate or PhD at ETH Zürich.

The data we present originates from two independent databases: The database of enrolled doctoral students at the Department of Earth Sciences (ERDW) was queried by the study secretary of the department and yielded the number of all people who will receive a PhD in Earth Science from ETH. The financial database of ETH (ETHIS) yielded an anonymized list of all students who have a working contract with ETH and their annual salaries.

We obtained the same datasets at two different points in time. The first dataset is from March 15th 2014, which was contemporaneous with the 2014 AVETH survey about working conditions, supervision and salary among all doctoral students at ETH. The second dataset was obtained on July 1st 2017. This approach yields insights in the development of the situation over time and to avoid reporting data that may not be representative of the long-term situation at D-ERDW.

We also consider findings from the AVETH surveys of 2014 and 2017. They provide additional information about the situation at D-ERDW.

Methods and Statistics

First, we divided the dataset from ETHIS into groups of identical salary. Then, we compared the number of students who will get a doctoral degree in Earth Sciences from ETH to the different salary groups. Special working conditions, such as part-time, were considered in the analysis. We paid special attention to the group of doctoral students who have a contract with ETH, but who do not receive any salary from ETH and to doctoral students who do not have a contract with ETH at all. Whenever any students from either group identified themselves, they were personally approached in order to further investigate their circumstances.

Results

Of a total of 180 doctoral students (numbers from 2017), 64% are employed by the standard salary rate system. 114 (63%) students get the salary according to rate 1 and two get a higher salary according to rate 3. The results of the 2014 AVETH survey are in line with these findings.

43 students do not have a contract with ETH, whilst 55 students do not receive payment from ETH. We found out that some of these students are paid by the Chinese government’s China Scholarship Council (CSC). Presently, this corresponds to a salary of 1900 CHF per month. We could identify 8 students who are in this situation and who do not receive any additional funds, thus have to live off 1900 CHF per month. As of right now, we were unable to determine the precise salary situation for the other 37 students without an ETH contract. So far, the working hypothesis that these students receive a salary below rate 1 could not be rejected.

The ten students with a contract from ETH, but no salary, could be accounted for: Some students who finished their degree or ran out of funding are still working on their project without compensation. At least two students who work at the Max Planck Institute in Mainz get a salary according to the German salary system.

ERC salary is paid with an exchange rate fixed once per year on February 1st. There are two groups of salary for ERC scholars. One group consists of two people (2017 dataset) that have a salary of 47'885 CHF per year, which is slightly below SNSF salary rate 1. The second group consists of five students, they have an annual salary of 53'068 CHF, which is slightly above the SNSF rate 1. This funding is limited to three years.

The numbers indicate that four students get a salary of less than rate 1. The annual wages are 6’000, 12’000, 19’992 and 20’000 CHF. We could not determine if the recipients of these salaries have an additional scholarship. However, it is very likely that these salaries are meant to raise CRC-scholarships closer to a normal
rate 1 salary, since some professors are known to top off the salaries of their scholarship-funded students. Nevertheless, none of these potential top-offs raise CRC-scholarships to the level of a rate 1 salary.

Table 1: Dataset from ETHIS compared with enrolled student numbers

<table>
<thead>
<tr>
<th>Description</th>
<th>15.03.2014 n (%)</th>
<th>01.07.2017 n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>enrolled doctoral students at the department ERDW</td>
<td>161 100%</td>
<td>182 100%</td>
</tr>
<tr>
<td>have a contract with ETH (includes eawag students but not all Max Planck</td>
<td>101 63%</td>
<td>139 76%</td>
</tr>
<tr>
<td>students)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>already Post Doc (error in the dataset therefore not considered)</td>
<td>2 1%</td>
<td>2 1%</td>
</tr>
<tr>
<td>have a salary paid (eawag students are also in here but not Max Planck</td>
<td>94 58%</td>
<td>127 70%</td>
</tr>
<tr>
<td>students)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>have salary rate 1</td>
<td>90 56%</td>
<td>114 63%</td>
</tr>
<tr>
<td>have salary rate 3</td>
<td>2 1%</td>
<td>2 1%</td>
</tr>
<tr>
<td>are not paid ETH salary, have only a contract for a working space</td>
<td>5 3%</td>
<td>10 5%</td>
</tr>
<tr>
<td>are not paid salary by ETH</td>
<td>67 42%</td>
<td>55 30%</td>
</tr>
<tr>
<td>work only 80%</td>
<td>2 1%</td>
<td>2 1%</td>
</tr>
<tr>
<td>ERC Marie Curie (47885 Fr/a)</td>
<td>1 1%</td>
<td>2 1%</td>
</tr>
<tr>
<td>ERC Marie Curie (53069 Fr/a)</td>
<td>5 3%</td>
<td></td>
</tr>
<tr>
<td>less than salary rate 1</td>
<td>4 2%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Pie chart showing the proportion of different incomes at D-ERDW for March 2014 and July 2017. Salaries increase clockwise on the chart.

Discussion

The research for numbers was initially dedicated to find salary inequality within the ETH-wide salary system. The result of the research changed the focus to another problem: We determined that 30% of the doctoral students at D-ERDW are not paid by ETH. Therefore, the discussion of this fact has a special priority.

24% of the doctoral students at D-ERDW, or 43 students, do not have a contract with ETH and therefore do not benefit from the Swiss pension system and they are also not insured against unemployment. This has grave implications for both their personal and professional development. Their personal development is impacted because a lot of social activities common among doctoral students become unaffordable to them, preventing their full integration into the local customs. Professionally, their lack of disposable income does not grant them equal opportunities to participate in ETH offerings that require a co-pay independent of income, such as the D-ERDW doctoral excursion, language classes, leadership courses offered by HR, or for the materials needed to invent and create at the ETH Student Project House, to name a few. In addition, the current situation offers professors and
senior scientists “cheap labour” and allows them to take on doctoral students without having any or appropriate funding to guarantee the quality of their research and their professional development into independent scientists. This is not in the best interest of students at D-ERDW, as it provides incentives for the selection of students based on considerations other than skills or scientific interest.

The opinion of the Mittelbau is stated in the original proposal: VAME does not accept salaries below rate 1 in the department and wants a transparent, uniform, and fair solution for all its doctoral students. The status quo, where some students are paid far below what can be considered a living wage in Switzerland, is not sustainable, ethically acceptable, and in line with the values of ETH and its community of scientists and should thus be changed. VAME represents all doctoral students that will earn an ETH title and requests equal treatment, opportunities, and responsibilities for all doctoral students.

The observation that there are more enrolled students than working contracts may have legal consequences too. This situation may not be in agreement with the ordinance about scientific staff at ETH, article 8 section 1a. The ordinance grants every doctoral student a working contract and a salary based on one of the 5 official salary rates. Legally, the ordinance about doctoral studies at ETH defines in article 1 who is a doctoral student at ETH. This is the case for all enrolled doctoral students. Additionally, the ordinance about scientific staff at ETH defines in article 10 that doctoral students take over teaching and general duties, which is also valid for all enrolled doctoral students. We infer therefore that all enrolled doctoral students are covered by the ordinance about the scientific staff at ETH, and that all doctoral students should be employed (art. 6 sec. 2a) at a salary rate that is defined in the appendix 2 of the same ordinance.

Arguments for equal salary amongst all students

In a modern society the salary must not depend on gender, ethnicity, or anything other than the merit of their work and role in an organization. Equal work calls for equal salaries. If one accepts exceptions, how can it be ensured that the exceptions do not become the norm and result in an arbitrary pay-gap? The 2017 AVETH survey indicates that there are gender pay-gaps in departments with unequal salary systems. Such pay-gaps are illegal in Switzerland and in cases of unequal salary between genders a reparation payment according to the Swiss average salary in science could be requested.

The rector of ETH decided in October 2017 that payment of Swiss excellence scholars has to be equal to ETH salary rates. Previously, these students had a significantly lower wage. Requests about these salaries were long debated and some departments implemented rules that guarantee the ETH salary rate.

If the salary of a group of people is significantly below the salary of another group, the group that receives less compensation has an unfair advantage that does not reflect their qualification. This danger was also recognised by the Swiss people when Switzerland joined the Free Movement of Workers agreement legislation. Therefore the accompanying measures law was passed, which prohibits salaries that are clearly below the Swiss rate – particularly if also paid from abroad. In agreement with the will of the Swiss voters ETH should not pay foreigners lower salaries than residents.

There need to be rules that define the salary for all students regardless of the source of their funding. The current system is arbitrary and therefore not in agreement with the resolution of VAME. VAME strives for equal salaries of doctoral students in cases of equal load of additional duties. Students with more department duties than the average should be compensated for it.

Arguments against equal salaries

All students agreed to the terms and salaries of the position they accepted. The foreign students are willing to have a low salary in order to obtain a doctoral degree at ETH. It has to be mentioned that this is in disagreement with the federal law Flankierende Massnahmen that state that a salary for a foreigner cannot be significantly lower than for residents. Also, in terms of gender equality it has to be noted, that it is illegal to pay different salary to men and women if they do the same work and the argument of a gender-specific difference in salary negotiation skills needs to be rejected without reservations.

Students can live with little money. Master students live with a budget of 2’000 CHF. It is argued that people with little income can benefit from discounts on health insurances.

A rule that no low salaries can be paid means that fewer students will be working per professor or that more funding is needed. The total academic output could be lower.
Less foreign students are able to obtain a degree at ETH in cases where the foreign scholarship agency does not raise the paid salary to the Swiss rate. This can lead to skilled students not being able to come to ETH if the professors at ETH do not get an own funding. This problem could also be solved with an ETH or ERDW fund that tops up the salary in these cases.

Considerations of the VAME salary working group

The authors support the abovementioned arguments for equal salaries. We think that the general Swiss public who is the funding body of ETH would not agree with the way the salaries are paid at the moment.

We think that a process should be started that unifies the compensation for the work of doctoral students. A rule for the compensation of department duties that exceed the average load should be adapted. There should be pathways that allow supervisors who do not have their own budget to hire and pay students. The authors are aware that if students’ salaries need to be raised to rate 1 salaries immediately, someone needs to pay the difference and the associated concerns of the higher Mittelbau. The authors suggest a solution that mirrors the resolution of a similar issue by USYS in 2016. There, it was decided that the costs of higher salaries are covered by the department for an initial phase and by the professors in the long term.

Finally, the authors also want to emphasize the importance to find a collaborative and sustainable solution soon. Almost 4 years have passed since the first AVETH survey. We think that the matter should not allow further delays in clarification and actions, since finding and implementing fair and feasible rules will take time too.

Conclusion

This paper outlines the current payment situation in the department.

1. Salaries among departments at ETH are highly variable. Doctoral students at D-ERDW and D-BIOL are the lowest paid group at ETH and no reason exists that withstands the scrutiny of logical arguments. D-ERDW has also no rule for compensating over-the-average department duties.
2. At D-ERDW, 30% of doctoral students do not receive a salary at rate 1. Instead, the majority of them are recipients of foreign scholarships. The wage paid to these students is approximately 1’900 CHF per month. This salary inhibits equal access to the personal and professional opportunities for students paid below salary rate 1, as a lot of activities offered by D-ERDW or ETH, such as field-trips and language-courses, require a co-pay that may exceed the financial capabilities of these students.
3. It is questionable whether such unequal payment is legal considering all the laws and ordinances available.

References

AVETH survey on salary and duties of ETH doctoral students (2014)
AVETH follow-up survey on salary and duties of ETH doctoral students (2017)
Allgemeines Ausführungsreglement zur Betragsreglement des SNF, Anhang 12: Ansätze für Doktorierende, Lohnbandbreiten und Richtlinien für Postdocs und weitere Mitarbeitende, Pauschale Sozialabgaben
China Scholarship Council award notice (2016)
VAME proposal about revision of doctoral salary regulation at D-ERDW (spring 2017)
Verordnung über das wissenschaftliche Personal der ETH
Bundesgesetz über die Gleichstellung von Frau und Mann (Gleichstellungsgesetz, GIG)
Verordnung des Rektorats über die Bundesstipendien Aufstockung
Flankierende Massnahmen zum Personenfreizügigkeitsabkommen zwischen EU und der Schweiz
AVETH survey on salary and duties of ETH doctoral students (2017)