

Consequences of the amendment of the Higher Education Act for Ph.D. studies

Zdeněk Žabokrtský



Outline

1. ÚFAL PhD study program in a larger context
2. Two main changes proposed in the amendment
 - Optional state doctoral exam
 - Minimal PhD student's income
3. Planned measures
 - Changed form of the admission procedure at MFF
 - Crucial role in ISPs
4. Conclusions

Disclaimer

- Only preliminary information about the amendment draft
- Only preliminary information about measures to be taken by MFF
- A lot of uncertainty everywhere

Big picture

- around 8k PhD students at Charles
- around 550 PhD students at our faculty across 3 PhD “schools”:
 - mathematics
 - physics
 - computers science
- 6 PhD programs in the MFF’s Computer Science school
 - Theoretical Computer Science and Artificial Intelligence
 - Software Systems
 - **Computational linguistics**
 - Theory of Computing, Discrete Models and Optimization
 - Visual computing and computer games
 - Bioinformatics and computational biology

ÚFAL PhD studies in numbers

- more or less a steady state in the last years
- around 30 PhD students studying at a moment
 - usually plus a few interrupted ones
- around $\frac{2}{3}$ enrolled in the daily form (and the rest in the combined form)
- on average 6 new PhD students a year
 - 60 enrolled students in the last 10 years
 - entrance exams twice a year
 - around $\frac{3}{4}$ start in the winter semester
- currently 14 active PhD supervisors
 - 9 not habilitated yet, but 3 in the habilitation process now

ÚFAL's current PhD supervisors and students



Proposed amendment of the Higher Education Act (Zákon o vysokých školách, 111/1998 Sb.)

- PhD study situation in the Czech Republic unsatisfactory in a long term
- a change expected for years
- a draft amendment approved by the government approved in March 2024
 - now in the Chamber of Deputies
- two main changes in connection with PhD studies
 - state doctoral exams won't be an obligatory part of PhD programs any more
 - minimal PhD student's income: 1.2 x minimal wage
- not valid before 2025/26, perhaps 2026/27
- in theory, to be applied only on new students...
 - ... but it'd be hard not to offer similar conditions to older students too

Cancelling the state doctoral exam

- Now obligatory for all students in all PhD programs
- The form of the exam is specified in the accredited description of the study program
- The intent of the legislator: the state doctoral exam should not be yet another examination from study subjects

State doctoral exams in present practice

- Highly **different local traditions**
- from the very “**lets-get-rid-of-it-asap**” approach, reusing that students remember what they learned for the master level state exams
- ... through a **check point in the middle** of the study ...
- ... to **merging** the state doctoral **exam** and the PhD thesis **defense** in a single day

State doctoral exams at ÚFAL

- Current situation
 - About one half of the exam: thesis proposal defense
 - The other half: examination from thematic areas (1 obligatory area + 2 optional out of 8)
- Charles University considers having a checkpoint in the 2nd or 3rd year as a good practice
 - UK will keep some checking point
 - Possibly the form of a “colloquium”?
- Conclusion
 - ÚFAL already reduced the amount of traditional examination at the state doctoral exam anyway and introduced flexibility by relatively many exam areas
 - Turning an exam to a colloquium - a rather formal change
 - Anyway, a big advantage: our doctoral program board will be more flexible as for definition of this check point

Minimal PhD student's income

- Estimate of 1.2x minimal wage in 2026: 27 k CZK per month
- Roughly **twice as much as the current “state-guaranteed” stipend**
- (Everything blurred by summing “before taxes” and “after taxes” incomes)
- But the state won't increase money to PhD programs => **necessarily fewer students can be paid from the same money**

- Btw what would be an equivalent of a net income 27 kCZK in project budget money?
 - My estimate: incl. taxes and obligatory project overhead costs around 500 k CZK a year
 - for 20 daily PhD students: around 10 M CZK a year
- Really a huge new financial commitment for the faculty
- A necessary consequence: some power to be moved from program boards to the dean

Minimal income, cont.



Minimal income, cont.

- Good news: 27k CZK roughly corresponds to avg income of starting PhD students in the computer science branch **already now**
 - the sum of the stipend + AP1 + involvement in a project or two
- Just that currently there's a lot of flexibility
 - We can motivate students in various ways
 - AP1 decreases in time
 - Involving students in projects is a possibility, not an obligation
 - Contracts do not have to be prolonged...
- This **flexibility will be partially lost**

How the PhD funds will be divided across faculties/universities?

- Now: currently more or less unlimited *per-capita* “state” stipend payments
 - obvious resource wasting
 - to be abandoned
- The ministry is likely to use a “**graduation rate**” as the main indicator
 - One option: the ratio of students who successfully **defend in the standard time +1**
 - MFF one of the best faculties in this criterion
 - ÚFAL extremely successful recently: 5 out of 7 defenses in 2024 within std. time +1
 - However, a very strict and unstable (“non-linear”) indicator
- Yet another reason why the faculty needs more control over the PhD programs

Changing the PhD entrance procedure at MFF

- Our current procedure:
 - An informal “**preselection**”, almost **continuously** during the whole year
 - Official PhD **applications** submitted by the end of **April**
 - A possible shortcut: the exam **can be waived** based on student’s application
 - Otherwise **entrance exam in mid June**
 - **immediate** decision about the acceptance by the committee

A new proposal for PhD entrance procedure at MFF

- The new proposal - two rounds plus thresholding by the dean
 - PhD applications by April 30
 - **1st round**
 - Evaluation based only on submitted documents (CV, LoR, ToR, mot. letter, publications...)
 - Excellent students can be accepted directly (only into English programs though)
 - Best students invited for the 2nd round
 - **2nd round**
 - Project presentation plus general examination
 - Each program's committee delivers scores for all 2nd round candidates
 - **3rd step:** the dean determines minimal acceptance scores for each program separately, by the end of June – This is something really new.
 - Expected number of accepted PhD students per program: 1

Wait! Only one accepted PhD student per program?!?

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- Not that bad actually
 - The admission procedure runs **twice a year**
 - And ÚFAL has a **Czech** and an **English** program
 - So in fact **4 new students a year**
 - And on average we have only around 3 graduates a year in a long term
- In addition, it's not a strict constraint. We will see what money allows.
- But yes, PhD students are likely to become a scarcer resource.
 - Competition expected not only among students, but also among supervisors, departments...

Much more attention paid to Individual Study Plans (ISP)

- Not an unusual situation at Charles: 4 yearly evaluations by the A grade, then a few Bs ... and dropping out from the study
 - Must be avoided
 - Rectorate's view: either a wrong ISP, or inadequate regular evaluation
- Ideal properties of ISPs
 - **phasing**
 - **verifiability**
- The plan must really aim towards a defense in the **standard time**
 - Shall we reduce our expectations?

Final remarks

- On the one hand, ÚFAL is in a good starting position
 - Income of our PhD students **above the proposed minimum already now**
 - We have a **decent graduation rate**
 - Informally, our **admission procedure is multileveled already now**
 - We **reduced the amount of traditional examination** in the state exam long time ago
- On the other hand, much more attention to be paid to
 - **Pre-selection of candidates**
 - **ISP** specification and regular evaluation; very strong pressure on study length
 - financial **planning**
- Above all, a different perception of PhD study is needed
 - From the supervisors' and departments' viewpoints: **a PhD student is a scarce resource**
 - From students' viewpoint: PhD study is **not just "yet another study"**, but an important career decision

Summary

- **Cons:** more stress, less manpower, less control at the ÚFAL level, less flexibility...
- **Pros:** more stress, hopefully higher-quality students, paid better, faster research...

- I can see some risks during the transition, especially in interpersonal or interdepartmental relations.

- Personally, I like the overall goals. We have been aiming at some of them anyway.