

Survey of Academic Staff of Czech Higher Education Institutions: An Overview of the Findings

Petr Matějů, Jakub Fischer and Michael Smith

Survey Background

A major survey of academic staff at Czech higher education institutions has been carried out between May 21 and June 18, 2009. The main goal of the survey was to map out the views of academic staff on the state of Czech higher education and on the main problems that Czech higher education institutions (HEIs) are confronting. It also identified how members of the academic staff view possible solutions to those problems and their opinions about different reform measures. Another goal of the survey was to assess the conditions and environment in which academic staff work. In that respect, the survey focused on their opinions toward higher education management, the role of academic senates, collaboration between businesses and HEIs, on the methods and effectiveness of evaluating the performance of academic staff in teaching and research, on their incomes and income satisfaction, and so on. The results of the survey will be used in public debates on higher education reform and for the RTE project to prepare legislative bills.

All levels of academic staff were included in the survey. The Ministry of Education sent a request for the email addresses of academic staff to the rectors of public, state and private HEIs. The survey was carried out by the public opinion research firm SC&C. Academic staff were contacted and invited to electronically fill out the questionnaire, which was accessible on a secure webpage. Access to the questionnaire was possible only by entering an access code that each potential respondent received by email. The survey was anonymous, i.e. the Ministry of Education does have any information that would enable it to connect the survey data with the database of email addresses that SC&C used to send out the questionnaire invitations.

A total of 25,660 respondents were contacted. 6,339 of the respondents contacted completed the questionnaire (24.6% of the total), 61% of those contacted did not respond, 2% refused to participate, another 2% of respondents were not academic staff, and 11% of the respondents did not complete the questionnaire.

The large number of respondents made it possible for the population sample to achieve a high degree of representativeness. A comparison of basic distributions (sex, academic rank, i.e. professor, associate professor, assistant professor, lecturer) from the survey data with statistical data revealed deviations in the range of +/- 2% at most. For the purposes of analysis, the dataset was nonetheless weighted so that there would be as much correspondence as possible between the sample and the underlying population. To achieve representativeness, the analytic file was weighted so that the representation of academic staff at individual HEIs in the dataset corresponded to their representation according to the 2008 statistics of the Institute for Information on Education. Simply put, the survey dataset can be considered representative in its basic parameters (in terms of sex, academic rank, and higher education institution).

Because during the time the survey was being fielded some members of the board of the Council of Higher Education Institutions had objections to the questionnaire (the questionnaire allegedly

contained "suggestive" or biased questions and steered respondents to respond in certain ways), after data collection was completed the Ministry of Education requested that an ex-post expert analysis of the survey be carried out. The expert analysis of the questionnaire, which has been published on the webpage of the RTE project, refuted those accusations. The conclusion of the expert analysis was unambiguous: "The analysis of questionnaire items, from the point of view of their validity, has shown that all of the items (questions or statements) are in accordance with the methodological requirements of a survey questionnaire. The analysis of the survey results further showed that the gained data correspond to the preliminary presuppositions about the logical relationships between relevant variables. It ensues from the analysis above that, from the point of view of the used methodology, the survey results are 'valid'" (Expert Analysis of the Survey Questionnaire of Academic Staff at Czech Higher Education Institutions, p. 16).

The basic results of the survey are available in the Survey Report, located on the RTE project website (<u>http://www.reformy-msmt.cz/reforma-terciarniho-vzdelavani/international-conference</u>). We would like to summarize here only a few of the most important findings.

Main Findings of the Survey

In terms of the overall profile of academic staff, **an unfavourable age structure still persists**, Only 14% of full professors are less than 50 years old, while more than half are older than 60. 62% of associate professors are older than 50, while only 14% are younger than 40. All relevant surveys carried out in the Czech Republic since the beginning of the 1990s have constantly called attention to this problem. Current attempts at changing this state of affairs have not been very effective.

Women constitute only 34% of the members of the academic staff. The unequal representation of women is especially evident among associate and full professors: of all male academic staff, 22% are associate professors and 15% are professors, whereas only 14% of female academics are associate professors and 5% are professors. As a result, this means that only 26% of associate professors and 16% of full professors are women.

In terms of income, the survey revealed that the average overall monthly gross income of academic staff (i.e. taking into account income from all sources) is 33,500 CZK, or approximately 1,325 EUR. As can be observed from Graph 1 (see appendix for all graphs), full professors between 40-50 years of age have the highest incomes (61 300 CZK, or 2423 EUR), while assistant professors and lecturers 30 years old or less have the lowest incomes (26,800 CZK or 1060 EUR, and 23,100 CZK or 913 EUR, respectively). There are also relatively large income gaps by gender. While the average income of a male professor is 52,500 CZK (2075 EUR), female professors earn only 46,200 CZK (1826 EUR), or 88% of the male income. The income gap among associate professors is even larger: the income of men in this category is 43,200 CZK (1708 EUR), whereas women earn only 35,400 CZK (1400 EUR), or 81% of the male income.

The above-mentioned 12% income gap between men and women is comparatively smaller than what is common in the Czech public sector as a whole for employees with higher education, but the 19% gap is comparatively larger. 22% of respondents expressed a large degree of dissatisfaction with their income at "their" HEI or faculty (20% of men, 24% of women). Income satisfaction of course increases if respondents take into account all of their earnings, as dissatisfaction declines to 9% (7% of men, 11% of women). We should also mention here that 33% of academic staff indicated that that they are also working either at another HEI or elsewhere.

The main focus of the survey, however, was the following three sets of themes: **administration and self-governance, higher education financing, and collaboration with the business sector**.

Administration and self-governance

Two-thirds (66%) of the academic staff surveyed believe that the HEI where they work has a strategic vision and is administered in a professional, managerial style (sum of responses "strongly agree" and "rather agree"). Younger members of the academic staff without managerial functions disagree with this claim more often compared to both their older colleagues, academics with managerial functions, and members of the academic senate. On the other hand, 65% of respondents agree that the low level of strategic management is a serious problem for Czech higher education. This critical view is also shared more frequently by younger academic staff without managerial functions, and members of the academics with managerial functions, and members of the academic senate. A deeper analysis of the data indicated that the apparent paradox between these two findings can be explained by the fact that academic staff who believe that the school where they work has a strategic vision and is administered in a professional, managerial style do not view the low level of HE strategic management as a general problem of Czech higher education.

A similar trend can be observed in respondents' evaluation of academic senates. Two-thirds of respondents (65%) agree with the claim that "the academic senate plays a very positive role in the management of the HEI at which they work, and contributes to its development." In accordance with that view, only 22% of respondents expressed that it is a fundamental problem that academic senates have "too large of an influence on the operational management of schools." In sum, respondents' very positive evaluation of the role of academic senates is also reflected in that only 35% of respondents maintain that the "poorly defined role of the rector, board of trustees, and academic senates" is a problem. However, this positive evaluation of contemporary conditions should be contrasted with respondents' relatively weak support for the claim that "the authority and responsibility of boards of trustees, administration and academic senates of colleges and universities are in an efficient and effective balance" (this claim was shared by only 51% of respondents).

There is also one more puzzle: two-thirds of respondents (65%) believe that it is necessary to implement more elements of professional corporate management in HE administration. But nearly the same share (59%) of respondents is inclined to believe that "academic senates should be involved in the administration of colleges and universities as much as possible." There is relatively large inconsistency in respondents' opinions here: more than half of the respondents (54%) who indicated that HE administrations should implement elements of corporate management at the same time also indicated that self-governance (academic senates) should be involved in HE administration as much as possible (graph 2, see appendix). This shows that HEIs are such specific institutions that it is not possible to easily apply common categories of management and self-governance, and that academic staff do not have a coherent and internally consistent opinion on the problems of HE administration.

Higher education financing

In terms of views towards HE financing, one of the most interesting findings is that while the lack of public funding is one of the greatest problems of Czech higher education (91% indicate the lack of funds is a fundamental or quite large problem), more than two-thirds (69%) see a problem in the poor management of the available funds and in the low level of efficiency in the HE system as a whole. In other words, the majority of academic staff (61%) maintains that the lack of public financing is a large problem of Czech higher education and at the same time admits that these funds are being wasted as a result of the low efficiency of the entire system (graph 3).

In a question about other sources to possibly improve this financial situation, the majority of academic staff (73%) shared the view that there is a lack of financial resources from the private

sector (corporations, firms). In terms of the role of tuition as a possible way to improve the financial situation of HEIs, respondents' views were less pronounced: just less than half of the respondents (47%) agreed that it is a problem that public HEIs cannot charge an appropriate level of tuition. **Respondents view tuition rather as a tool to motivate students to fulfill their academic requirements, to increase the accountability of teachers towards their students (54%), and that it would increase the overall quality of the education provided (57%). 57% of respondents (definitely yes + rather yes) were in favour of introducing deferred tuition, while 52% were in favour of up-front tuition (graph 4). 70% of respondents were in favour of some form of tuition. A majority of respondents (57%) also agreed that HEI budgets should be dependent on the success of graduates on the labour market, whereas they were more reserved towards the view that HEI income should be dependent on the interest of prospective students to study there (44% agreed to this principle).**

Collaboration with the business sector

Another analyzed phenomenon was the openness of HEIs towards their outside environment (corporations, the labour market, etc). The survey indicated that members of the academic staff are relatively optimistic in terms of the ability of schools to prepare graduates to competently and quickly adapt to changes on the labour market (66%). However, fewer respondents positively view the ability of HEIs to cooperate with corporations and other subjects (41%). But, at the same time, they also assume that this is because Czech HEIs do not have the same conditions as HEIs in advanced countries (83%).

The survey's attention centred on respondents' positions towards HE reform and their views about what changes the reform could bring. **The survey revealed that 72% of respondents believe that Czech higher education needs deep reform**: 24% are definitely convinced about this, while a further 48% replied "rather yes" (graph 5). If we split the dataset into two groups – those for reform (72%) and those against (28%) – we can analyze the internal structure of these two groups. This approach found that younger members of the academic staff are more inclined towards reform than their older colleagues, as well as ordinary academics compared to members of the management or academic senates. We also consider it quite important that respondents' opinions towards reform are influenced very little by whether they follow public debates about reform with a lot of interest (74% for reform), or only marginally (70% for reform)

The last section of the questionnaire (82 items) focused on the views of academic staff toward possible changes in the Czech HE system. We will discuss only a few of the reform strategies here (these strategies will be discussed in detail in the presentation of the survey results).

Support for higher education reform in the Czech Republic

We should first seek to identify the reform strategies where there is consensus between both proponents and opponents of reform (the results of an analysis of differences in means for the two groups).

A large degree of consensus exists in the following proposals:

- Accredit only programmes of study (faculties will themselves decide academic fields)
- Students should not be able to participate in deciding the budget
- Accreditation should be based more on the qualification structure of core academic staff
- The minimum share of students in academic senates should be determined by legislation

- The management model of HEIs should be autonomously and professionally implemented by institutions themselves (in cooperation with all bodies of the institution, including academic senates)
- The weak collaboration between HEIs and practice is the lack of interest in such collaboration
- Do not abandon the accreditation process
- Students should not be able to participate in deciding personnel matters (selection of rector, dean)
- The amount of tuition (even in the form of deferred payments) should be determined by the HEI.
- The habilitation must be a condition for gaining the rank of professor
- Quality should be largely a matter of the higher education institution alone
- The number of graduates should play a larger role in financing
- The results of the quality assessments should be reflected in accreditation
- Multi-criteria evaluations need to be used for quality assessments

A relatively large degree of consensus exists in the following proposals:

- During quality assessments, the correspondence between the HEI's mission and the achieved results need to be monitored
- Performance in research and development (e.g. Web of Science, Web of Knowledge) should be decisive for categorizing faculties relative to the size of the institution
- The results of the quality assessments should be made public, so prospective students can use them in making their decisions
- Students should participate in the evaluation of both teaching and support activities
- Students should not be able to participate in making decisions on strategic issues
- The accreditation of doctoral programmes should ensue from the excellence of the department (or place of study) in research and development (according to the RIV database)
- The results of quality assessments should be reflected in the level of formula funding

A definite degree of disagreement exists in the following proposals:

- The current system of collaboration between higher education institutions and practice is not satisfactory (proponents of reform agree more)
- Professorships should be for an allocated position based on an open tender, not a title granted by the president (proponents of reform disagree less)
- The way academic staff and management at higher education institutions are evaluated is the cause of the weak collaboration between those institutions and practice (proponents of reform agree more)
- The conditions for financing public and private higher education institutions from public resources should be balanced in the case tuition were to be introduced at public colleges and universities (proponents of reform disagree less)
- Quality should be assessed by another competent and authorized body, perhaps even by several independent agencies (proponents of reform agree more)
- The current system of financing educational activities is satisfactory (proponents of reform disagree more)
- HEIs should be financed differently depending on the amount of tuition charged ("the more students are willing to pay, the more the state should contribute") (proponents of reform disagree less)
- The success of graduates on the labour market (e.g. unemployment, pay levels) should play a role in financing (proponents of reform agree, opponents prefer the status quo)

- Faculties and entire tertiary education institutions should be categorized from the point of view of their aims and objectives (proponents of reform agree more)
- The accreditation of bachelor programs of study should more significantly reflect the practical skills of graduates (proponents of reform agree more)
- The management model of HEIs should be dependent on the type of institution (oriented towards research, teaching, non-university institution, etc) (proponents of reform agree more)
- Higher professional schools should have a chance to integrate themselves into the system of tertiary education (both groups disagree, proponents of reform disagree less)

A large degree of disagreement exists in the following proposals:

- The current management system of HEIs is efficient (proponents of reform disagree, opponents of reform rather agree)
- Responsibilities and authorities: the current system is satisfactory (proponents of reform disagree, opponents agree)
- The current model of managing higher education as an institution is appropriate (proponents of reform disagree, opponents agree)
- Introducing tuition solves nothing (proponents of reform disagree, opponents rather agree)
- For increasing efficiency, it is necessary to amend legislation and establish new rules of financing (proponents of reform agree much more strongly than opponents)
- Properly set tuition fees would work as a tool for increasing competition between higher education institutions (proponents of reform agree, opponents of reform disagree)
- For increasing efficiency, it is necessary to strengthen the influence of external stakeholders (employers, alumni, etc) (proponents of reform slightly agree, opponents disagree)
- The influence of students: the current system is satisfactory (proponents of reform disagree, opponents agree)
- The increased influence of the outside environment needs to be achieved through the larger presence of external stakeholders in administrative and scientific boards with enhanced competencies (proponents of reform slightly disagree, opponents strongly disagree)
- Academic senates and boards of trustees should have an equal role in the choice of rectors (proponents of reform do not disagree, opponents disagree)
- Tuition would worsen the accessibility of higher education for low-income groups, even if it would be implemented as deferred tuition and along with mechanisms of student financial aid (proponents of reform slightly disagree, opponents agree)
- Properly set tuition fees would work as an informational signal for self-regulating the supply and demand for fields of study and for individual schools (proponents of reform agree, opponents disagree)
- Introducing tuition would lead to increased student responsibility for their choice of field of study and for their academic results (proponents of reform strongly agree, opponents agree)
- Introducing tuition would lead to the increased responsibility of colleges and universities for the success of graduates on the labour market (proponents of reform agree, opponents disagree)
- The current system of habilitation is satisfactory (proponents of reform disagree, opponents agree)
- Influence of the outside environment on higher education institutions is satisfactory (proponents of reform disagree, opponents agree)
- The current system of granting professorships is satisfactory (proponents of reform disagree, opponents agree)

Main conclusions in relation to reform:

- The results reveal that the majority of respondents (72%: 24 % definitely + 48 % rather) believe that Czech higher education needs deep reform
- Support for reform does not depend on how intensively the respondent follows public debate on this theme (graph 6)
- Academic staff at different ranks share the view that reform is needed (differences by rank are small) (graph 7)
- Support for reform is particularly expressed by members of the academic staff who are critical towards the management style of their own school and the academic senate at their school or faculty; this generally indicates the low efficiency of financial management in the tertiary education system and for poor level of HE management.

The survey of academic staff makes it possible to look back on the *White Paper of Tertiary Education* and compare problems that are mentioned there with the problems academic staff perceive in the HE system. It is even possible to compare the main recommendations of the *White Paper* with how members of the academic staff perceive the kinds of changes that would benefit tertiary education in the Czech Republic.

The side of the academic community that would like to see reform essentially perceives the main problems of higher education as they are identified in the White Paper:

- The low level of strategic management at HEIs (graph 8)
- Poor financial management (graph 9)
- Poorly defined role and responsibilities of rectors, boards of trustees and academic senates (graph 10)
- Graduates are not well prepared for changes in the labour market
- The lack of tuition and the weak influence of students as clients
- The absence of a strategic vision and the weak role of strategic components in HE management (graph 11)
- Weak collaboration with the business sector
- A too large of influence of academic senates on the operative management of HEIs (graph 12)
- Weak influence of HEIs on the competitiveness of the economy
- Quality (measured by outcomes) do not have a sufficient influence on school budgets

The side of the academic community that would like to see reform essentially supports the changes that, in their basic outline, are identical to those recommended by the White Paper:

- Change legislation and establish new rules of financing
- Strengthen the influence of outside actors (graph 13)
- Strengthen the authority of boards of trustees
- Both the academic senate and the board of trustees should participate in selecting rectors
- Introduce tuition (and student loans) and establish it so that it can work as a mechanism for competition between schools (graph 14)
- Enable quality to enter into financing (results of evaluations should be projected into formula funding)
- Adjust management models according to the type of institution (graph 15)
- Create conditions so that students exercise their influence largely as clients (graph 16)
- Limit the influence of students on decision-making, budgets and the selection of rector

It should be mentioned here that these results, which emphasize the main differences between supporters and opponents of reform, partially obscure the absolute levels of some positions and opinions. It is thus important to again recall that the analysis of the above results indicating that, contrary to the views of the authors of the *White Paper*, academic staff (including those who want reform) are generally less critical towards the role of academic senates in the operative management of HEIs (graph 17), are more cautious of the representation of external stakeholders in boards of trustees as well as in strengthening the role of boards of trustees in HE management. On the other hand, academic staff, particularly proponents of reform, demands the strengthening of "corporate" elements in HE management (graph 17).

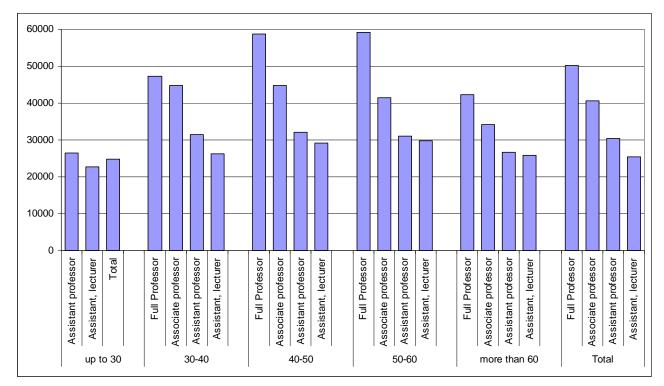
In conclusion, we will summarize the degree of support for comprehensive reform among different groups of academic staff:¹

Support for comprehensive reform:

- is greater among ordinary academic staff and members of HE management than members of academic (faculty) senates (graph 18)
- is not weaker among academic staff in the humanities and social sciences than it is among those in technical, natural sciences and other fields (graph 19)
- is much greater among academic staff who believe that their HEI is not led in a professional, managerial way
- is much greater among academic staff who do not think that the academic senate at their faculty (or school) plays a positive role in the development of their HEI (graph 20)
- is much greater among academic staff who believe that the low level of strategic management is a major problem of Czech higher education (graph 21)
- is much greater among academic staff who believe that the low efficiency of the system and poor financial management are major problems of Czech higher education
- is much greater among academic staff who believe that the poorly defined role of rectors, boards of trustees and academic senates are major problems for Czech higher education
- is much greater among academic staff who believe it is a major problem for Czech higher education that academic senates have too much of an influence on the operative management of HEIs
- is the same among academic staff who follow public debates on HE reform with great interest and those who follow such debates only marginally, or not at all.

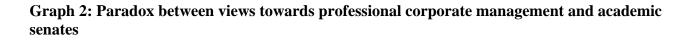
¹ This part of the summary will use discriminant analysis, which is a technique for classifying a set of observations into predefined classes (such as proponents and opponents of reform, as in our case) based on a set of predictor variables. All of the predictor variables have an identical 7-point scale (from 1= definitely disagree to 7 = definitely agree) and together cover a wide range of opinions on the reform of higher education institutions, financing, administration, accreditation, etc. The latent variable that our analysis focuses on, the class of supporters of reform (the variable "support for comprehensive reform") is largely defined by the following questions, which have the strongest correlation with the hypothetical discriminant function): change legislation and establish new rules of financing; strengthen the role of external stakeholders; strengthen the role of boards of trustees; academic senates and boards of trustees should have an equal role in the choice of rectors; introduce student loans and tuition fees, the latter serving as a tool of competition among HEIs; quality should affect formula funding; governance models should be chosen according to the type of HEIs; students should exert their influence on HEIs primarily as clients; and reduce the influence of students on decisions on budget and personnel matters.

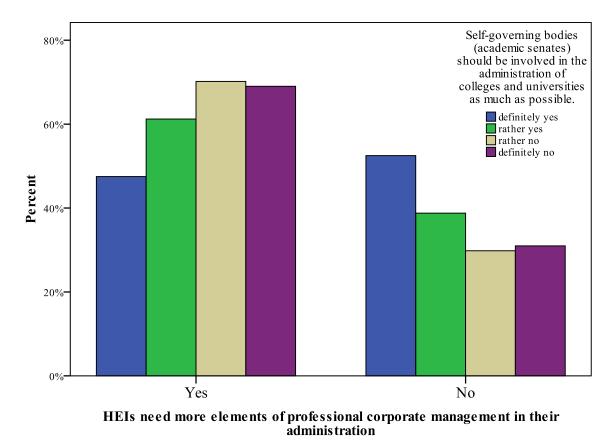
Figures



Graph 1: Average monthly gross income of academic staff from all sources, by age and academic rank

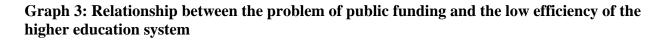
Source: Survey of Academic Staff of Czech Higher Education Institutions

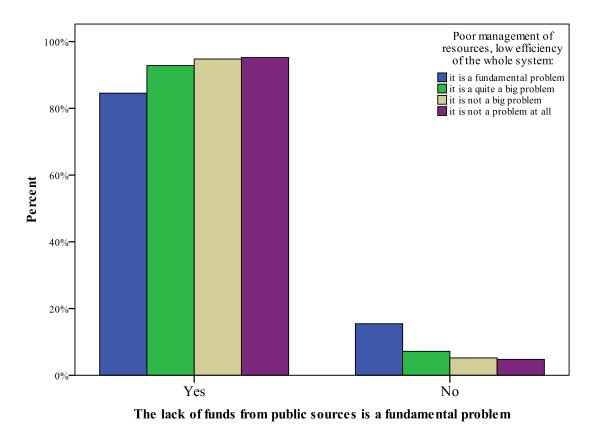


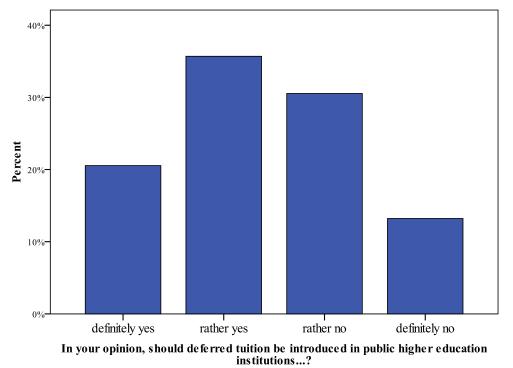


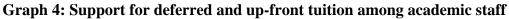
Cases weighted by Weight

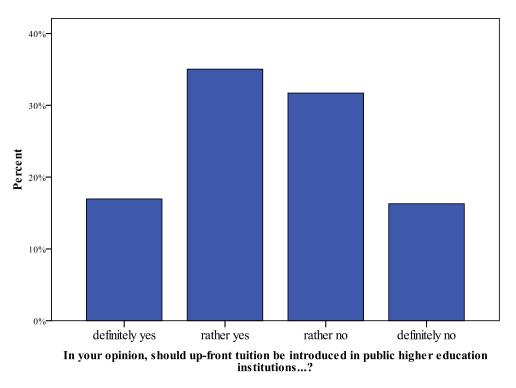
Source: Survey of Academic Staff of Czech Higher Education Institutions





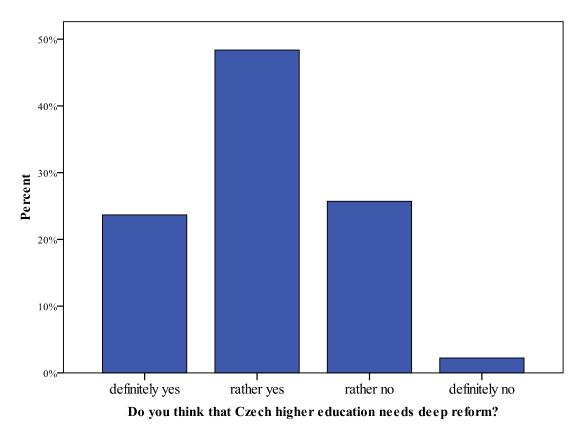






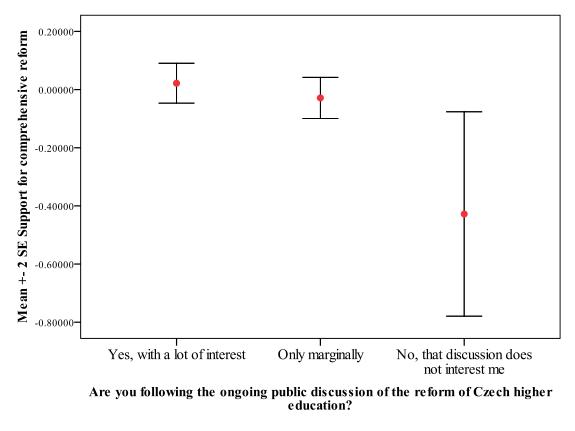
Cases weighted by Weight

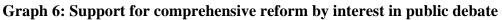
Source: Survey of Academic Staff of Czech Higher Education Institutions



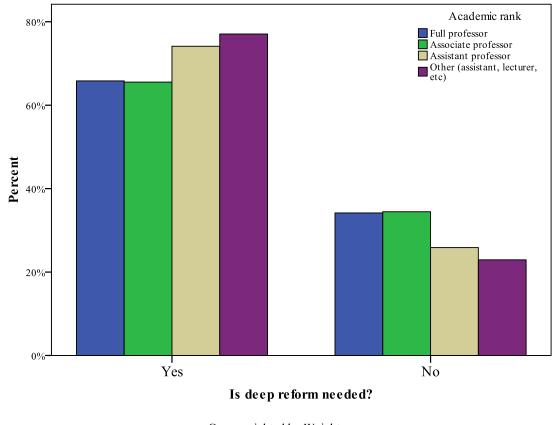
Graph 5:Views towards higher education reform

Source: Survey of Academic Staff of Czech Higher Education Institutions

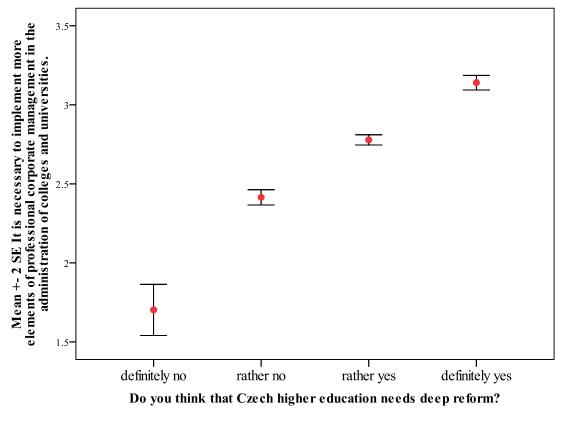




"Support for comprehensive reform" is a latent variable, defined by a discriminant function of nine variables that best describe the group of supporters of reform. Higher values indicate greater support for reform.

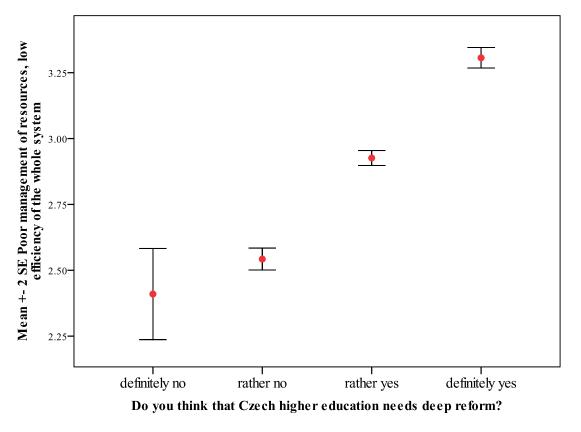


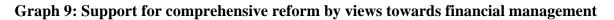
Graph 7: The necessity of reform by the academic rank of respondents



Graph 8: Assessments of the level of HEI strategic management by reform position

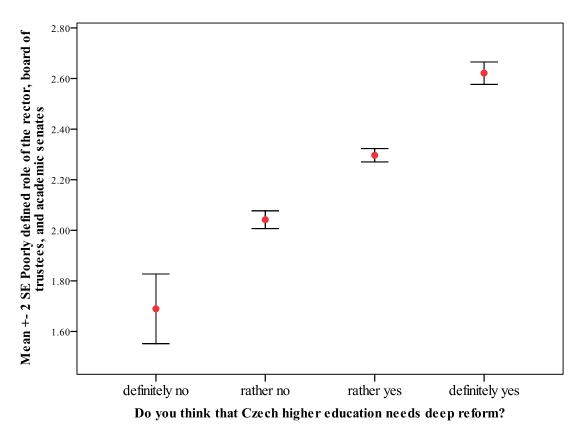
The y-axis variable has the following values: 1 = definitely no; 2 = rather no; 3 = rather yes; 4 = definitely yes

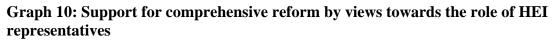




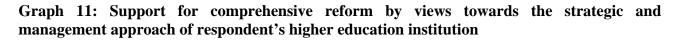
The y-axis variable has the following values: 1 = it is not a problem at all; 2 = it is not a big problem; 3 = it is quite a big problem; 4 = it is a fundamental problem

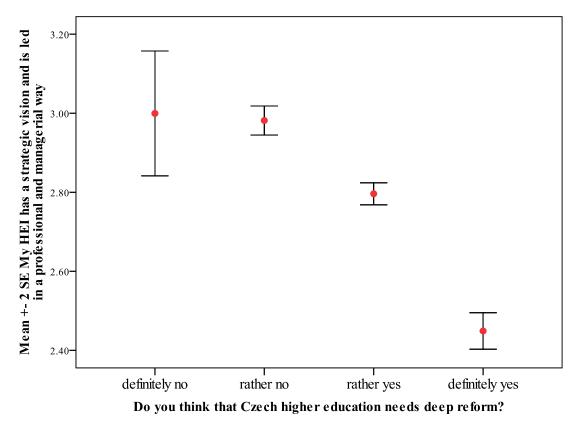
Cases weighted by Weight





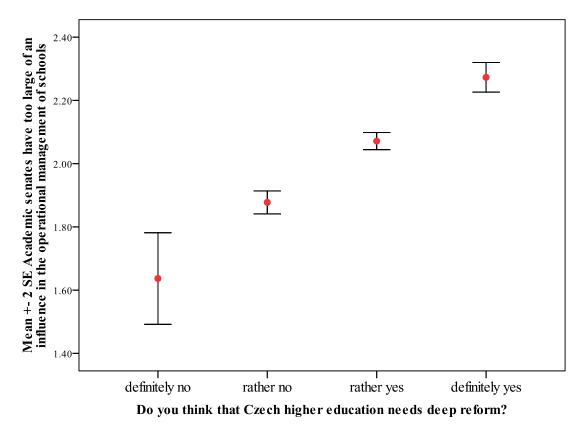
The y-axis variable has the following values: 1 = it is not a problem at all; 2 = it is not a big problem; 3 = it is quite a big problem; 4 = it is a fundamental problem





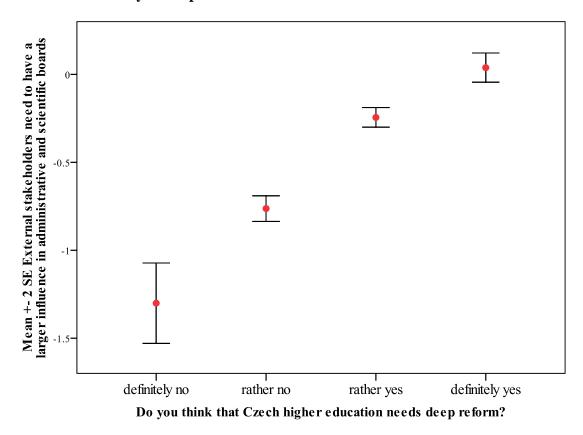
Cases weighted by Weight

The y-axis variable has the following values: 1 = definitely do not agree; 2 = do not agree; 3 = agree; 4 = definitely agree



Graph 12: Support for comprehensive reform by views towards the influence of academic senates

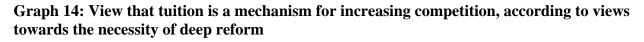
The y-axis variable has the following values: 1 = it is not a problem at all; 2 = it is not a big problem; 3 = it is quite a big problem; 4 = it is a fundamental problem *Source: Survey of Academic Staff of Czech Higher Education Institutions*

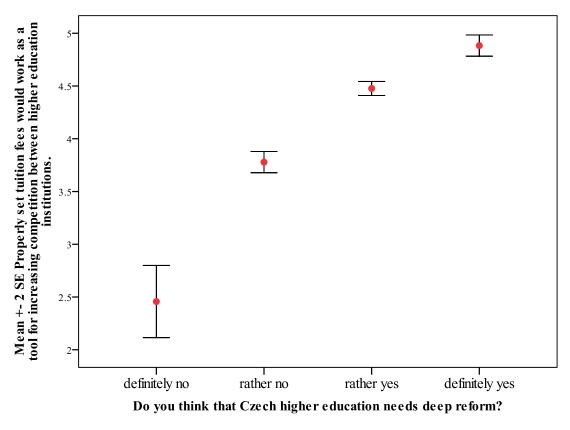


Graph 13: Reform position towards the need for external stakeholder influence by views towards the necessity of deep reform

Cases weighted by Weight

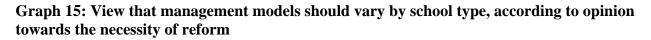
The y-axis variable is composed of a 7-point scale with the following range: 1 = definitely disagree; 7 = definitely agree

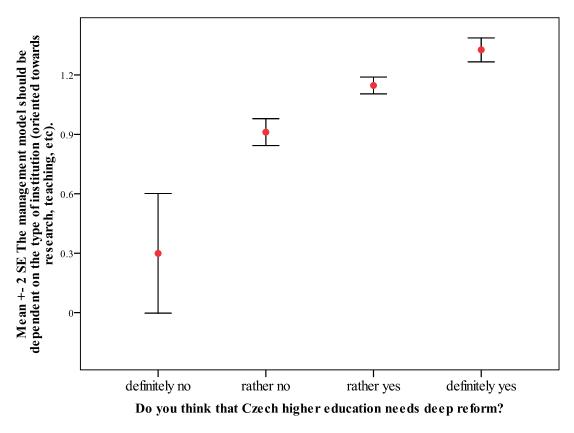




Cases weighted by Weight

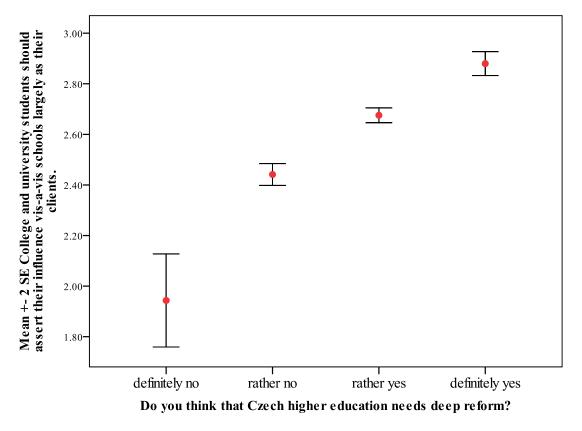
The y-axis variable is composed of a 7-point scale with the following range: 1 = definitely disagree; 7 = definitely agree





Cases weighted by Weight

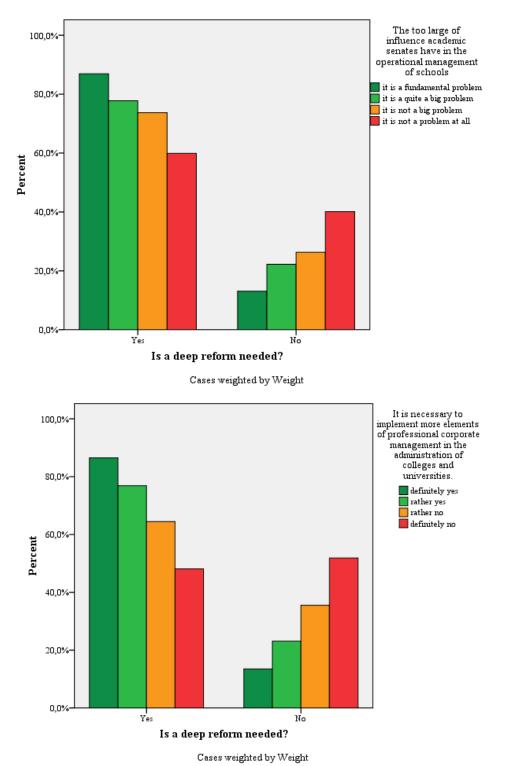
The y-axis variable is composed of a 7-point scale with the following range: 1 = definitely disagree; 7 = definitely agree



Graph 16: Opinion towards the role of students according to opinion towards the necessity of reform

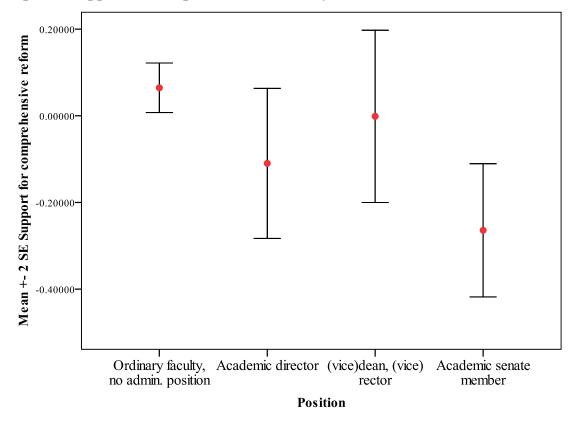
Cases weighted by Weight

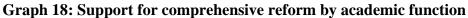
The y-axis variable has the following values: 1 = definitely no; 2 = rather no; 3 = rather yes; 4 = definitely yes



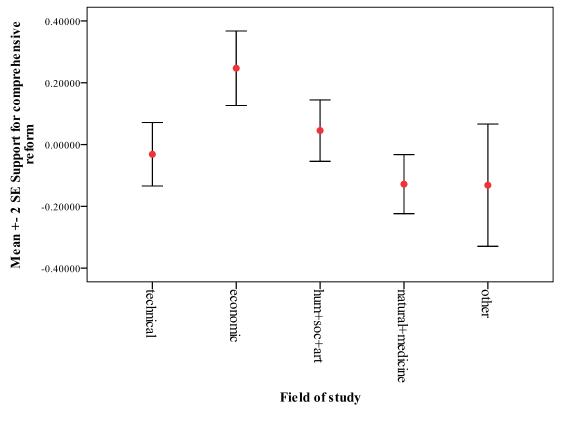
Graph 17: Opinions on the role of academic senates and the possibility of strengthening corporate elements HE management by views towards reform

Source: Survey of Academic Staff of Czech Higher Education Institutions



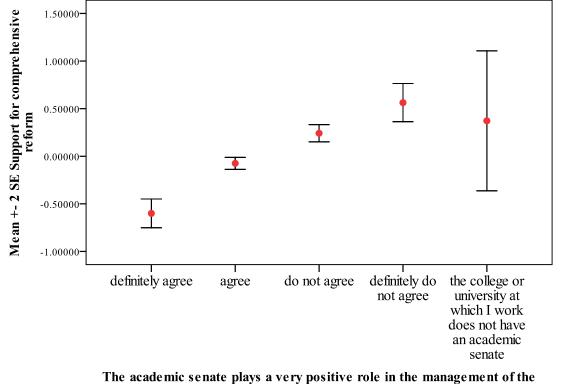


"Support for comprehensive reform" is a latent variable, defined by a discriminant function of nine variables that best describe the group of supporters of reform. Higher values indicate greater support for reform.



Graph 19: Support for comprehensive reform by field of study

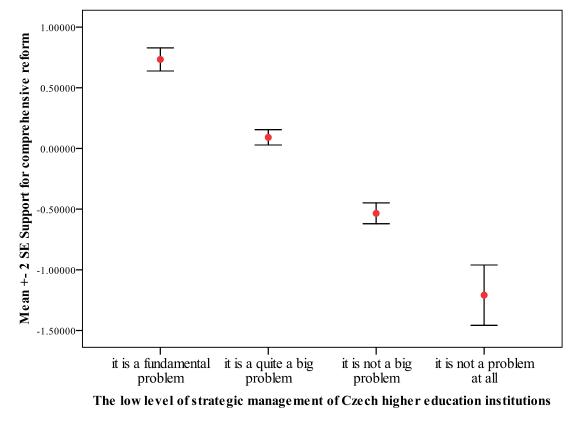
Source: Survey of Academic Staff of Czech Higher Education Institutions



Graph 20: Support for comprehensive reform by views about the role of the academic senate

college or university at which I work, and contributes to its development.

Cases weighted by Weight



Graph 21: Support for comprehensive reform by views towards HEI strategic management

Source: Survey of Academic Staff of Czech Higher Education Institutions