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## GENDER EQUALITY AND ITS IMPLEMENTATION IN UNIVERSITIES OF LITHUANIA

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**ABSTRACT.** All over the European Union the share of women and men amongst the top level academic staff and research boards is uneven and women are considered under-represented, while their intellectual potential is being under-used. The general situation in science and higher education in the European Union has encouraged us to pay attention to the issue of gender balance in this field and to perform the corresponding sociological research. The article presents the results of the survey performed in universities of the Republic of Lithuania in 2013 and 2015, which prove the existence of asymmetric gender distribution and vertical segregation within Lithuanian higher education system. Women dominate at the lowest administrative and research levels while men prevail at the highest levels. This situation requires strengthening the gender equality policy in the sector.

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### Introduction

Non-recognition of gender mainstreaming in science increases the negative impact on the quality of research, research policy, and the use of scientific results in practical economic and social life (LYMOS, 2012, p. 197). It is clear that scientific researches in this field are necessary. Despite the fact that gender equality issue is one of the most popular topics within sociological researches, situation in Lithuanian universities is rarely an object of such studies. This leads to the *novelty* of the topic aiming to reveal the current situation and to evaluate the actual status of women in academia. The *research purpose* is to investigate the structure of administrative staff and academic positions by gender in both public and private universities of the Republic of Lithuania. While the *research objectives are* to determine whether vertical segregation prevails in the structure of academic positions and administration staff of

Lithuanian higher education and science as well as to identify the main factors affecting it. In addition, it is planned to reveal the differences in gender representation comparing public and private universities personnel data. The *research methodology*: combination of theoretical and empirical methods was chosen. The method for empirical data collection is survey. *The article* consists of three sections starting with substantiation of necessity to ensure the gender balance in higher education and science, then proceeding with identifying the research methodology and analysis of the survey results. *Practical implications* – the results of the survey held in Lithuanian universities show the asymmetric gender distribution and vertical segregation within Lithuanian higher education system. Women dominate at the lowest administrative and research levels while men prevail at the highest levels. This conclusions lead to the need for further scientific researches in this field in order to provide validated recommendations on introduction of gender balance in Lithuanian universities.

### **1. Equal Opportunities of Women and Men in the field of Higher Education and Science**

Despite of prevailing understanding of gender equality as one very important value and principle in contemporary world, still men and women take different roles in the field of Higher education and science. Over 40 years ago, nearly 5,000 American and Canadian children were asked to draw a picture of a scientist, and only 28 children (0.6%) depicted a woman scientist (Miller *et al.*, 2014). Can we expect significant changes in gender roles stereotypes today?

During last decades gender equality idea was widely promoted in all areas. It became one of the European Union's public policy principles. Following the strategy of Gender Mainstreaming, gender equality shall be incorporated in all policies at all levels and at all stages (Council of Europe, 1998), including all fields of academia and research. The necessity to seek the equality between women and men includes arguments related with the need to implement in general fairness, democracy and credibility, as well as research relevance and quality. Only equal participation of both genders can ensure sufficient diversity and secure the heterogeneously of scientific groups, what is widely recognized as more vigorous and innovative (Committee for Mainstreaming – Women in Science in Norway, 2007).

Not ensured gender equality in research displays in horizontal segregation in different fields of science. For example, in the fields of physical and technological sciences where the concentration of researchers makes up to 50 per cent women make only 12 per cent (LYMOS, 2012). Also vertical segregation exists in the top academic and science management levels. For example, in Lithuania there is only one woman university rector (private university). The problem may be caused by the irrational use of human resources in science. In case it stays unsolved, it may have a negative impact on research and development and impede the growth of a country's economy. Having in mind that one of the headline targets of the EU economic growth strategy Europe 2020 is stimulation of research and development (European Commission, 2010), such obstacles should be overcome.

Despite positive changes achieved in recent years, the strikingly low presence of women can be noticed in the highest academic and decision-making positions in scientific institutions and universities. It indicates the existence of a glass ceiling, that is, invisible barriers based on prejudices, which stand in the way of women accessing positions of responsibility (European Parliament, 2015).

In the European Union "the proportion of women in grade A academic positions between 2010 and 2013 confirms that women continue to be vastly under-represented in top positions within the higher education sector. As was the case in 2010, the proportion of women varies widely across countries, most having proportions ranging from 45% to 11%. Women continue to be under-represented in top academic decision-making positions. In 2014,

within the group of 22 EU countries for which data were available, women represent less than 40% of the members of scientific and administrative boards at national level in 14 countries. They represent close to 50% of the board members in three countries (Sweden, Luxembourg, and the Netherlands)" (European Commission, 2015).

Glass ceiling phenomena and its expression in the field of education and science in scientific literature is widely discussed and main reasons for its appearing are already revealed. One possible explanation for the causes of the inequality between male and female academics is the pipeline argument. The image of a pipeline is a commonly advanced explanation for persistent discrimination that suggests that gender inequality will decline once there are sufficient numbers of qualified women in the hiring pool (Monroe&Chiu, 2010). This argument predicts that low representation of women is more connected with insufficient number of female candidates to high positions, rather with ongoing discrimination of women.

Still "Pipeline" phenomena by itself do not answers the questions, what barriers female scientists are facing in their academic careers. What factors do not let women to be prepared for taking managerial responsibilities? Low number of women in high positions is also determined by the division of gendered roles, which in many households remains even when both partners have demanding careers, and women progressing successfully in their career often show negative developments in their family lives (i.e., divorce and fewer/no children) (Dobelea *et al.*, 2014). As in the other fields, these facts allows most of women in research and higher education institutes to climb the career ladder up only to a certain limit.

Jörg Müller *et al.* (2011) also claim that when entering higher education, women constitute the majority in many countries, and yet it seems that at each consecutive stage, from graduation to PhD to full professorships, more and more women drop out. One of the main reasons why women discontinue meeting their professional ambitions is that the years of exclusive dedication to a science career coincide with women's fertile age. Even more, women have proportionately more care responsibilities to fulfil which prevents them from showing the same dedication to their science career as men (Müller *et al.*, 2011). "Activities related to work-life balance needs and career breaks because of maternity also undoubtedly have a role in reducing the time devoted by women to informal networking activities. The relative absence of women in relations among fellow researchers decreases the level of mutual exchange into departments and deprives women of basic instruments for successful advancement" (LYMOS, 2012, p. 228). Lucinda Barrett and Peter Barrett (2010) support these arguments also. These scientists indicate that underlying reasons for inequality are connected with slower progressions of women career due personal choices arising from different gender roles.

It is necessary to take into consideration robust relationships between women's representation in science and national gender-science stereotypes, defined as associations connecting science with men more (Miller *et al.*, 2014). Another argument is that over the last decades the approach to women's position in research have changed from women's lack of confidence and knowledge, which is no longer an issue, to the new discourse. It speaks about institutional culture and organizational barriers to women's participation and advancement, and the need to change the cultures of science and research in order to support and encourage women's inclusion (Garforth&Kerr, 2009; Deem *et al.*, 2005).

Serious argument is concerning pay scale differences: "It should be noted that women's and men's pay scale differences are de facto determined by their position. The factual situation shows that men occupy higher (and better-paid) positions" (LYMOS, 2012).

Lithuania in the field of gender equality is facing similar trends as in the whole European Union. Statistics and research data shows that women are under-represented at the highest decision-making levels, but their number in the lowest executive chain is excessive, women still earn less than men for the same work of equal value, they still face difficulties in

order to reconcile family and career. The Law on Equal Opportunities for Women and Men of the Republic of Lithuania as a main source of gender equality legislation, entrenches equal rights, prohibits any discrimination for the gender, including charging educational and research institutes with a duty to implement equal rights of women and men in the field. Despite it, gender balance after the research of situation in Lithuanian universities was evaluated as requiring attention: "According to different studies there is non-formal discrimination of women in science when aiming for a managerial position: the requirements for women are higher than that for men; also it takes longer for females to get their scientific degree. <...> Strong gender stereotypes are still prevalent in our society that tend explain the different situation among women and men in the society as being natural. <...> They form in families, in the media, whereas the system of education does not put sufficient stress to eliminate them" (Žalėnienė *et al.*, 2013).

In recent years, it is obvious that for the implementation of gender equality it is not enough to pass certain legislation only – it requires a long-term transformation of the public policy and permanent collection and analyses of statistics. "In the absence of the gender related data statistics <...> it would not be possible to measure the changes in gender equality and empowerment of women. Statistics are necessary in order to be able to identify the weak and not always visible areas related to certain research policy objectives for evolution of gender equality" (LYMOS, 2012, pp. 207-208). In order to ensure constant monitoring of gender representation dynamics in Lithuanian universities, the survey was committed. The main objective of the quantitative research was to determine whether the vertical segregation still prevails in the structure of academic positions and administration staff and to evaluate situation changes comparing statistics of years 2012 and 2014.

## 2. Empirical research methodology

In spring 2013 and spring 2015 The Office of Equal Opportunities Ombudsperson in partnership with Mykolas Romeris University scientists provided questionnaires on gender balance in academic positions and administrative staff to all state and private universities of the Republic of Lithuania. At the moment of presenting the first questionnaire in 2013, 24 public and private universities were operating in Lithuania. Only two private universities did not provide data on their structure of staff by gender. Having in mind specifics of Catholic priests gender requirements and taking into consideration official data, provided in websites of these universities (Vilnius St. Joseph's Seminary, 2013; Seminary of Kaunas, 2013) mostly staff of these higher education institutions consists of male personnel. The lack of data in this case do not significantly influences general situation in favor of better balance of both gender representation, because it might only strengthen male predominance in the field. During the second survey in 2015, the same questionnaires were submitted to 22 registered state and private universities and all of them participated and brought back the answers.

It should be stated that during 2012-2014 some universities have changed their status: Vilnius Academy of Business Law (hereinafter – VABL), which voluntarily participated in the survey in 2012, had incorporated into the non-state Kazimieras Simonavičius University (hereinafter – KSU). On that basis, in the assessment of the universities it shall be noted that for 2012, data for VABL is included, and for 2014, KSU data shall be evaluated.

In order to examine the gender equality situation in Lithuanian higher education and reveal the changes in this aspect, the article analyzed sociological studies carried out in 2012 and 2014, and performed comparative analysis of those two periods of data. Gender equality in this study was measured by gender distribution within the *sector of internal management* (made up of the head (rector), top-level managers (vice-rectors, faculty management, i.e. deans, deputy deans, heads of departments and faculty councils), management of institutes,

administrative staff); and the *sector of education* (made up of teachers, namely teaching assistants, lecturers, associate professors, professors, researchers, i.e., junior researchers, researchers, senior researchers and chief researchers, and postgraduate students (PhD students)).

It was deliberately chosen to investigate the institutions of state and non-state types separately due to the size of the development of institutions and the application of different activity strategies. *Table 1* presents abbreviations of the names of the universities that operated in Lithuania in 2012 and 2014 and participated in the study.

Table 1. Abbreviations of names of educational institutions

	Name of institution	Abbreviation
State Universities	1. Aleksandras Stulginskis University	ASU
	2. The General Jonas Žemaitis Military Academy of Lithuania	MAL
	3. Kaunas University of Technology	KTU
	4. Klaipėda University	KU
	5. Vilnius University	VU
	6. Lithuanian Academy of Music and Theatre	LAMT
	7. Lithuanian University of Health Sciences	LSMU
	8. Lithuanian Sports University	LSU
	9. Mykolas Romeris University	MRU
	10. Šiauliai University	ŠU
	11. Vilnius Academy of Arts	VAA
	12. Vytautas Magnus University	VMU
	13. Vilnius Gediminas Technical University	VGTU
	14. Lithuanian University of Educational Sciences	LEU
Non-state Universities	1. Branch of the University of Bialystok in Vilnius Faculty of Economics-Informatics	UB FEI
	2. European Humanities University	EHU
	3. ISM University of Management and Economics	ISM
	4. Kazimieras Simonavičius University	KSU
	5. LCC International University	LCC
	6. Telšiai Bishop Vincentas Borisevičius Priest Seminary	TKS
	7. Vilnius St. Joseph Seminary	VS
	8. International Business School at Vilnius University	VU IBS
	9. Vilnius Academy of Business Law	VABL
	10. Seminary of Kaunas	SK

*Source:* compiled by authors.

### 3. Analysis of the survey results

In 2014, 22 universities operated in Lithuania: 14 state and 8 non-state universities, academies, and seminaries providing higher education. State higher education institutions that operated in Lithuania and participated in the research amounted for 63.3 per cent, and non-state institutions made up 36.4 per cent.

During the period of 2012-2014, the overall number of employees in universities decreased by approximately 1 per cent (from 41,156 employees in 2012 to 39,901 employees in 2014). The overall number of female employees increased compared to males. In 2012, the percentage of women was 3.9 percentage points higher than that of men; and in 2014, female

employees of universities prevailed over male employees by 10.24 percentage points (Table 2).

Table 2. University staff by gender in 2012 and 2014

Employees by gender	2012	2014
MEN	48.05	44.88
WOMEN	51.95	55.12

Source: compiled by authors.

The study revealed a prevailing vertical segregation in Lithuanian institutions of higher education, i.e. a significant under-representation of women in top management level. As little as one of the 22 universities involved in the study had a woman in supreme leading position – the rector. That was the rector of non-state LCC International University Dr. Marlene Wall. Other higher education institutions were headed exclusively by men. These data have not altered through the two years.

Breakdown of sociological studies of 2012 and 2014 and their comparative analysis revealed the following trends (Fig. 1 and 2):

- *Men dominate in top management positions (vice-rectors and collegial management bodies) of state universities.* In 2012 vice-rector's position was taken by 31 men and only 14 women, i.e. women were under-represented more than 2 times less than men. In collegial management bodies there were 510 men (approx. 70 percent) and only 203 women (approx. 30 percent). In middle-level administrative positions, gender situation is more moderate: in the faculty management positions, men make up about 57 per cent; while women represent about 43 per cent; in senior executive positions of institutes both genders keep almost equal balance at somewhat greater preponderance in favor of men. An approximate gender balance at somewhat greater preponderance in favor of women characterizes number of teachers and researchers. Meanwhile, in the lowest level – an administrative staff – women make up the majority (approx. 70 percent). The same trend characterizes postgraduate level (doctoral) studies, i.e., women in this position make approximately 60 per cent.
- *In non-state universities, representation of women in top management (vice-rectors and collegial management bodies) and middle management (management of faculties and institutes) is higher than that in the state universities.* That is, in 2012, an absolute gender balance existed among vice-rectors of non-state universities, i.e. 6 women and 6 men (50 / 50 percent). In collegial management bodies there were 84 men (approx. 66 percent) and 45 women (approx. 34 percent). In contrast to state universities, women in non-state universities dominate the management of institutes: in 2012 as many as 58.2 percent of the heads of institutes were women (in 2014 – 52.4 percent). In the rest of categories, such as teachers and researchers, administrative staff and postgraduate students, the situation is analogous to that of state universities.
- *In state universities, the comparison of the data of 2012 and 2014 shows that major changes in gender balance occurred in the categories of top management, collegial management bodies, and faculty management – women's share grew relative to men's share.* The largest growth was seen in top-management level – it made 4 percentage points. Unfortunately, in the lowest administrative category, i.e., in the administration staff, the men's share over the two years decreased further (from 30.7 per cent to 27.6 per cent), while the proportion of women increased (from 69.3 to 72.4 per cent). It is the category in

Lithuanian higher education system, for which vertical segregation is by far the most typical; i.e., women are expressively over-represented.

- In non-state universities, the comparison of the data for 2012 and 2014 discovered the largest alteration in top-managers: the survey of 2014 showed the pronounced under-representation of women in this position – their share decreased from 50 per cent to 35.3 per cent. Such a significant change is related to the growth of the number of vice-rector positions in non-state universities. In 2012, as little as 12 vice-rectors were employed; and in 2014, their number increased to 17. Unfortunately, after establishing the new vice-rector positions the gender balance has not been ensured. Number of female vice-rector stayed the same as in 2012, and the number of male vice-rectors grew almost twice. However, in collegial management bodies and faculty councils, through the two years, the proportion of women (the same as in state universities) increased. In 2014, the women's share in non-state universities postgraduate students significantly increased (from 53.6 per cent to 68 per cent), thus distancing from the gender-balanced representation. In terms of gender balance, decrease of women's share in institutes' heads (5.8 percentage points) and increase in female administrative staff proportion (1.7 percentage points) should be assessed adversely.
- However, the data provided by the survey enables to conclude that differences in gender balance in Lithuanian state and private universities speak in favor of the private ones. It might be determined by stronger gender roles stereotypes traditionally more prevailing in state universities while private universities tend to be more modern and younger organizations, which accept the equal participation of women and men in top level administrative and research structures as natural and matter-of-course process of nowadays European academic society.

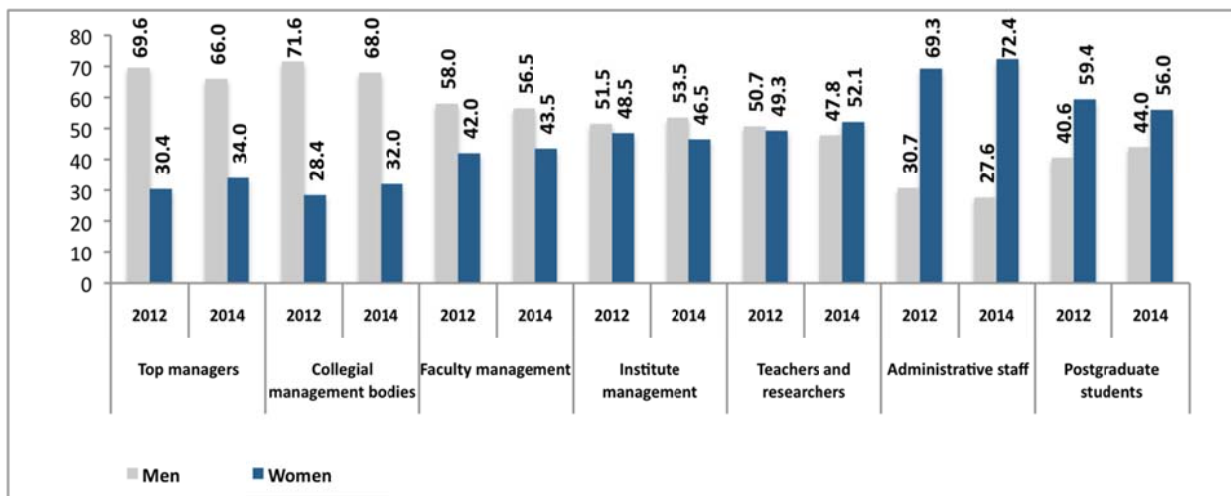


Figure 1. The allocation of positions by gender in Lithuanian state universities in 2012 and 2014, in per cent

Source: own calculation.

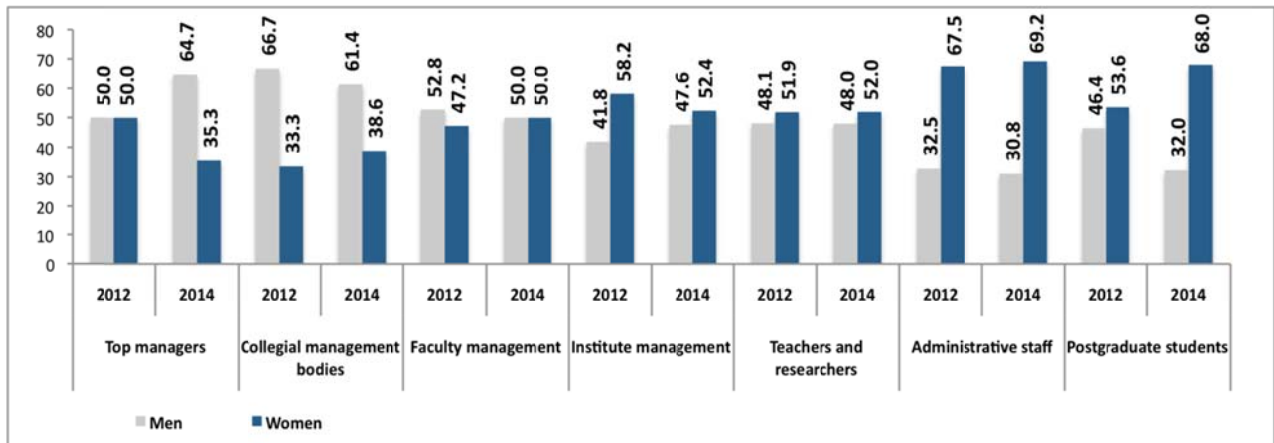


Figure 2. The allocation of positions by gender in Lithuanian non-state (private) universities in 2012 and 2014, in per cent  
*Source:* own calculation.

### 3.1. University staff data by an academic title (assistant, lecturer, associate professor, professor) from a gender perspective

According to the sociological survey, all universities, academies, and seminaries offer scientific positions of lecturers, associate professors and professors. *The distribution of academic titles by gender reflects a vertical segregation in Lithuanian universities. Sociological surveys carried out in 2012 and 2014 confirmed that the higher academic title, the smaller share of women possessing it.*

*Women clearly dominate in the lowest level positions such as assistant and lecturer, making more than 50 per cent.* Mostly women are concentrated in the assistant positions: in 2012, women accounted for as much 63.4 per cent of assistants (men made 36.6 per cent). In 2014, the survey revealed unessential progress in achieving gender balance: compared with 2012, the share of male assistants increased by 1.2 percentage points. In lecturer positions women accounted for 57.1 per cent (men made 42.9 per cent). In this position, no change has happened over two years (Figure 3).

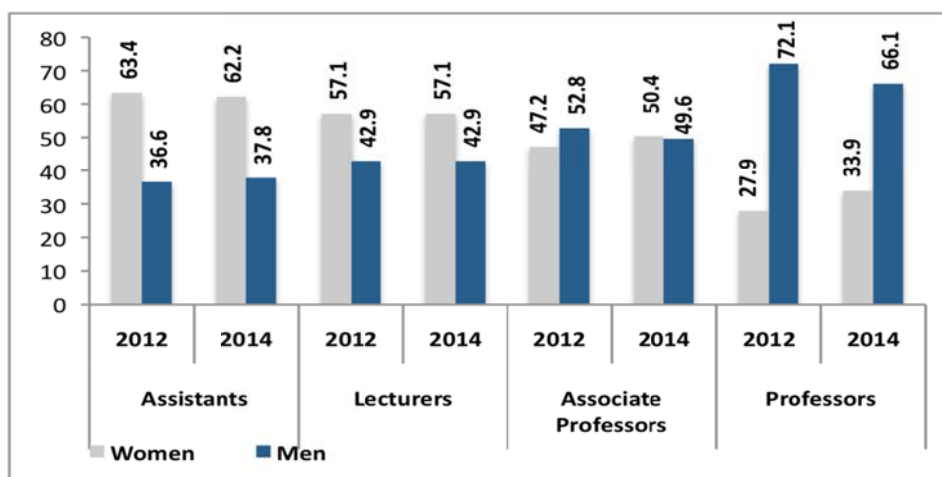


Figure 3. Teachers as per academic title by gender in Lithuanian universities in 2012 and 2014, in per cent  
*Source:* own calculation.



*Associate professor is probably the only position, which is nearly balanced in terms of gender.* In 2012, women accounted for 47.2 percent of associate professors, and men made 52.8 percent. In 2014, the share of female associate professors increased by 3.2 percentage points and made 50.4 per cent (men made up 49.6 per cent) (Figure 3).

*In 2012, women accounted for only 27.9 per cent of all professors (men made 72.1 per cent).* A comparison of 2012 and 2014 sociological research, shows that in position of professor academic title the progress towards gender balance is visible: in 2014, women made 33.9 per cent of all professors (i.e., 6 percentage points more than in 2012), and men accounted for 66.1 per cent.

*The examination of specific universities shows that in 2012, in 20 universities out of 22, female lecturers made from 50 up to 100 per cent.* The least numbers of women lecturers were in TKS with 15.4 per cent (Seminary) and VAA with 48.7 per cent. A comparison of 2012 and 2014 studies discovers no significant visible progress in balancing representation of women and men in the lecturer position.

In as many as 17 universities (out of 22 analyzed in the study), over two years (from 2012 to 2014), the number of women in *associate professor* position increased, while in 11 universities it reached or exceeded 50 per cent compared to male assistant professors percentage. Associate professors distribution by gender shows a positive trend.

In 2012, only 2 out of 22 universities in study had a gender balance in *professor* academic title position category: in Vilnius Academy of Business Law (VABL), female and male professors had each established 50 per cent, and in ISM University of Management and Economics, female professors accounted for 62.5 per cent (men professors made 37.5 per cent). In the rest of universities, the share of female professors ranged from 0 to 44.4 per cent. No female professor was present in UB FEI, LCC (in 2012, no single professor of any gender was present), and TKS.

In increasing balanced gender representation in position of professor, ISM remains the absolute leader, where the number of female professors significantly had grown to 70 per cent over the two years; LEU has also reached a gender balance (the share of female professors is 50 per cent). In as many as 12 universities out of 22, the share of female professors has increased. Meanwhile, the share of male professors over the two years has fallen even in 11 universities involved in the study. Men's drop in academic title of professor category could be determined by a demographic crisis that resulted in fewer students in the majority of Lithuanian high schools. This essentially influenced the decline in teachers' salaries, and, according to stereotypes, men generally prefer better paid jobs compared to women. It is likely that part of male professors moved to new well-paid jobs.

### **3.2. Academic staff of universities by gender**

*Distribution of Lithuanian universities academic staff by gender confirms the prevailing vertical segregation: the lowest levels of researchers (junior researchers and researchers) are mainly dominated by women, while higher levels (senior researchers and chief researchers) are clearly dominated by men.* The data for 2012 concerning *junior researchers* can be presented as an exception, which denied the principle of vertical segregation and reflected the gender balance: women accounted for 47.7 per cent of all junior researchers, and men made 52.3 per cent. Nevertheless, the data for 2014 shows a lack of men in the ranks of junior researchers – they accounted for only 39.2 per cent (women made 60.8 per cent) (Figure 4).

Among *senior researchers*, under-representation of women is not significant, the more so, when comparing the data of 2012 and 2014, the progress towards gender balance is visible: women's share increased by 1.1 percentage points (from 45.8 per cent to 46.9 per

cent). In the level of chief researchers, the most prominent vertical segregation is seen: in 2012, women accounted for as little as 25 per cent of all chief academic staff (men made 75 per cent). However, in 2014 the survey showed that in comparison with 2012, the women's share in chief researchers had increased as much as by 6.5 percentage points (Figure 4). This is one of the biggest indicators of progress among all survey categories.

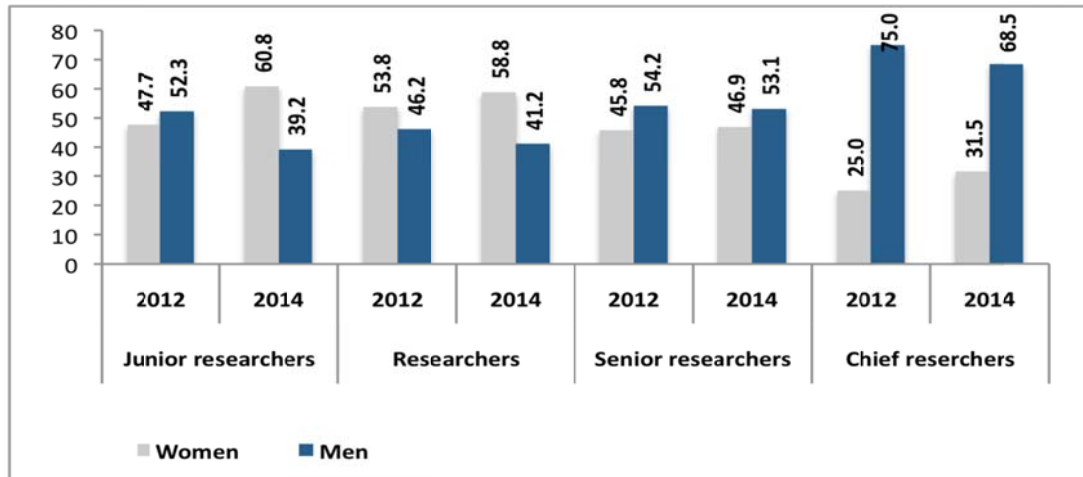


Figure 4. Academic staff by gender in Lithuanian universities in 2012 and 2014, in per cent  
Source: own calculation.

### 3.3. Collegial management bodies of universities (Senate, Council) by gender

Studies have shown that men dominate collegial management bodies of Lithuanian universities, while women make under-represented gender. The representation of women in universities' Senates is below 40 per cent and in Councils, their part represent as little as about 22 per cent. Comparing sociological researches of 2012 and 2014, in universities' Senates, progress towards ensuring gender balance can be seen. Women's representation in Senates has grown by 5.3 percentage points (from 31.7 per cent to 37 per cent), while in universities' Councils representation of women over the two years has fallen by 0.3 percentage points, and that of men increased respectively (Figure 5).

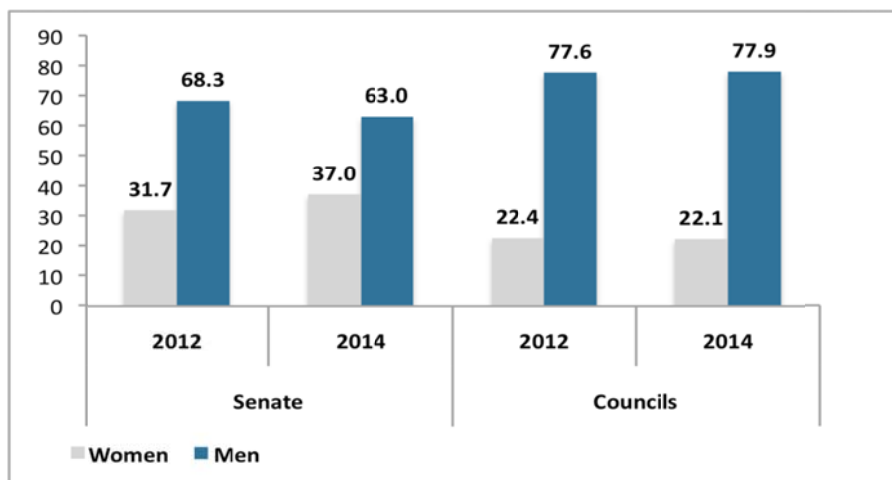


Figure 5. Collegial management bodies by gender in Lithuanian universities in 2012 and 2014, in per cent  
Source: own calculation.

### 3.4. Administrative staff of universities by gender

The sociological studies of 2012 and 2014 confirmed the trend for unambiguous women domination in the lowest administrative positions. This is related to the prevailing gender-role stereotypes that assign women to the lowest-level operator functions, and men are assigned with leading (and thus better-paid) positions. Women and men have different access to economic resources, unequal access to employment, material and social status options. There exists a vertical segregation – a 'glass ceiling' – when a woman sees her career opportunities for vertical mobility but cannot implement them, and if she wants to achieve such a position, she has to break through this glass ceiling. This formula expresses gender inequality, most frequently occurring at high levels of the hierarchical structure (Rakauskienė *et al.*, 2014, p. 115).

The number of administration staff is one of the largest within the structures of universities, academies, and seminaries. From 2012 to 2014, this number had increased from 3290 to 4490, i.e., by more than a thousand. In 2012, women accounted for 69.1 per cent of administrative staff, while the men made only 30.9 per cent. In 2014 the situation is even less favorable for the gender balance: female administrative staff accounted for as many as 72.2 per cent (i.e. 3.1 percentage points more than in 2012), and men made 27.8 per cent (Figure 6).

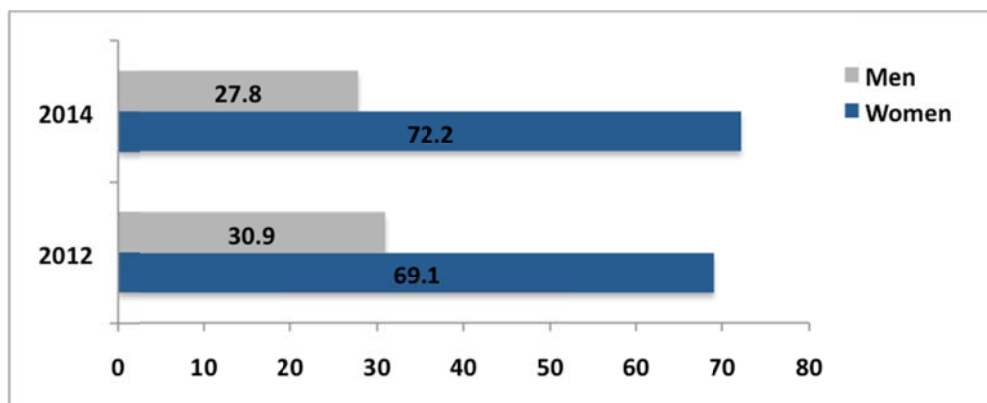


Figure 6. Administration staff by gender in Lithuanian universities in 2012 and 2014, in per cent

Source: own calculation.

*Rising upstairs of hierarchical ladder, institute management is already dominant position of men: an average of about 60 per cent of directors are men, and 40 per cent are women.* It should be noted that an institute as a form of administration is one of the most unpopular sector, in which higher education institutions operate: In 2012, as little as 17 out of 22 high schools in research proposed to take an institute director's position; and in 2014 this number accounted for 13. Despite this, in this position vertical segregation can be seen as well. Still, comparing sociological studies of 2012 and 2014, we find that the proportion of women in the rank of director of institute is increasing: in 2014 compared to 2012, the proportion of female directors of institute increased by 3.4 percentage points and amounted to 42.7 per cent (men made 57.3 per cent) (Figure 7).

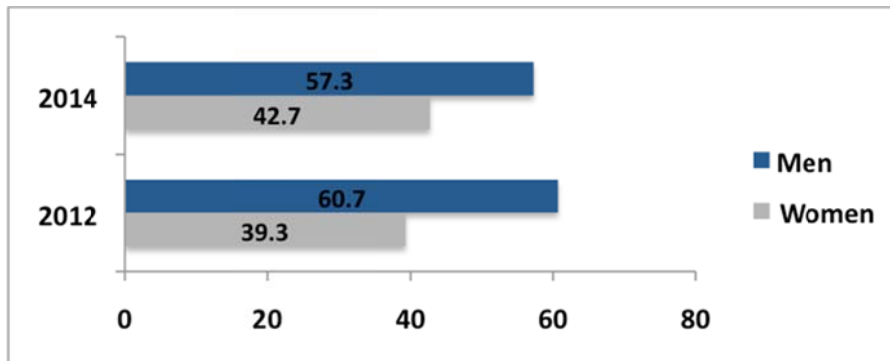


Figure 7. Institutes' directors by gender in Lithuanian universities in 2012 and 2014, in per cent

Source: own calculation.

The analysis of positions of faculty deans in terms of gender shows a significant under-representation of women in this position. In 2012, 72.5 per cent of faculty deans were men and women accounted for 27.5 per cent respectively. Nevertheless, in 2014, in this position little progress on gender balance aspect exists: female deans accounted for 29.1 per cent of all Lithuanian universities' deans, i.e. by 1.6 percentage points more than in 2012. According to the prevailing stereotypes in society, when job position descends hierarchically, women's representation expectedly increases. Here, in faculty deputy dean position in 2012, women amounted to 53.2 per cent, and in 2014 their number increased by 2.9 percentage points (56.1 per cent).

The position of head of a department is characterized by the lack of female representation – in 2012, women accounted for 39.3 per cent of all department heads, and two years later, this share increased slightly by 2.3 percentage points (to 41.6 per cent). The composition of faculty councils is also characterized by a gender imbalance: within both test periods, women averaged about 43 per cent of all members of faculty councils, and the men made about 56 per cent. Comparing data of 2012 and 2014 studies, representation of women in this position was very insignificant (0.7 percentage points only) (Figure 8).

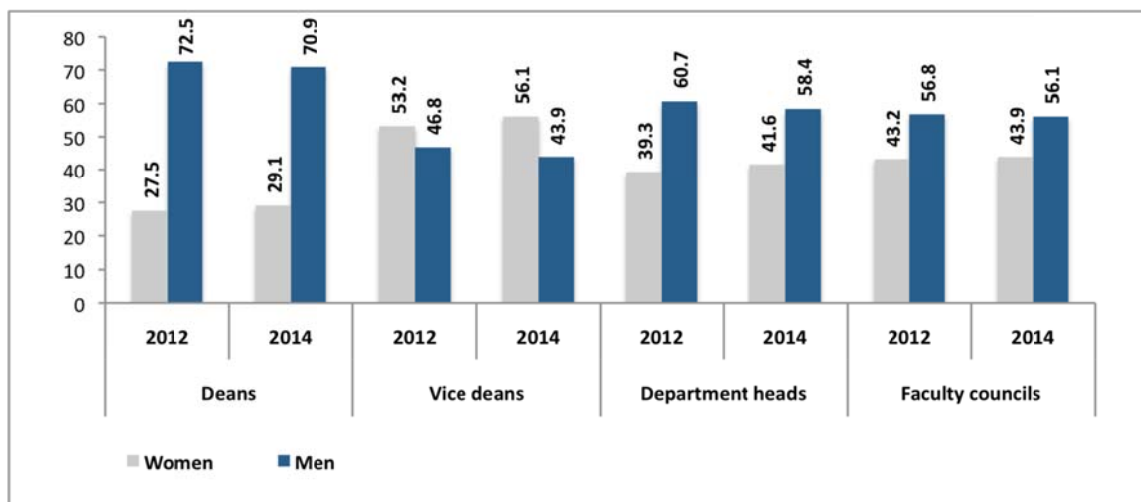


Figure 8. Faculty's management by gender in Lithuanian universities in 2012 and 2014, in per cent

Source: own calculation.

## Conclusions

1. Sustainable development of science is one of the important factors for successful implementation of European Union economic growth strategy Europe 2020.

2. Equal women's empowerment in research gives value added due to implementation of the principles of fairness, democracy and credibility. The main arguments encouraging to seek gender balance in research are connected with the full-fledged use of the whole human resources of a country, research quality and its relevance.

3. The main obstacles for women to pursue careers in science and occupy managing positions in the administration of universities equally to men are:

- the society stereotypes, which lead to a 'glass ceiling' phenomenon, meaning prejudices and organisational barriers to the career-oriented women;
- difficulties of reconciliation of family and career that men almost do not face, and scientific work breaks for maternity leave;
- the gender pay gap, pushing women at a disadvantage;
- the lack of women in managerial level might be determined not by discrimination, but of non-sufficient selection of competent female candidates to compare with male.

4. Sociological studies carried out in 2012 and 2014 in Lithuanian universities show that exists an asymmetric gender distribution and vertical segregation within Lithuanian higher education system, as it is in some EU countries. Women dominate in the lowest administrative and research levels, and men prevail in the highest levels:

- there is only one female rector of a university (non-state), all other rectors are men;
- in the administration of universities women concentrate in the lowest administrative positions (about 70 per cent). Women exceed men in faculty vice dean positions as well (proportion of women is about 54 per cent). Top management positions of faculty heads and directors of institutes are dominated by men: they make up about 71 per cent of deans, about 59 per cent of department heads, 56 per cent of faculty councils' members, and about 59 per cent of institute directors;
- in collegial management bodies, men also dominate: they account for about 65 per cent of members of the senate's and about 77 per cent of members of the councils;
- the data for academic staff from a gender perspective confirms the vertical segregation principle: women make up the majority of junior researchers (about 54 per cent) and researchers (about 56 per cent), while men dominate as senior researchers (about 53 per cent), and especially as chief researchers (about 71 per cent);
- distribution of teachers' positions according to an academic title has revealed that men dominate in professor positions (about 69 per cent), and women prevail in assistants (about 63 per cent) and lecturers (about 57 per cent) positions.

5. Non-state (private) universities, compared to the state, have a higher representation of women in top and middle administrative layers, i.e., among top managers, collective management bodies, and management of faculties. This enables to conclude that differences in gender balance in Lithuanian state and private universities speak in favor of the private ones. It might be determined by stronger gender roles stereotypes traditionally prevailing in state universities while private universities tend to be more modern and younger organizations, which accept the equal participation of women and men in top level administrative and research structures as natural and matter-of-course process of nowadays European academic society.

6. Comparative analysis of sociological studies of 2012 and 2014 revealed that Lithuanian universities are characterized by favorable changes in order to achieve gender balance in top levels of administrative and academic staff of the universities. Over the two years, the proportion of women has increased in the most supreme administrative positions:

among faculty deans and vice deans, department chairs, members of faculty councils, directors of institutes, and members of the Senate. Also, the proportion of women has notably increased in the highest scientific positions. Based on this favorable trend taken place over the two years, it can be assumed that in the long term even greater results in gender balance in science will be achieved.

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