

# **TRENDS OF HIGHER EDUCATION AMONG FEMALE STUDENTS: THE CASE OF UNIVERSITY OF THE PUNJAB**

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## **Abstract**

This research study is conducted to explore the changing trends of higher education among female students in Pakistan. Enrollment trends of male and female students were studied for four years (2011-14) specifically in context of University of the Punjab. This research study has used secondary data for supporting literature and findings. Fact books (2011-14) of Punjab University were used as secondary source of data collection. Graphs and charts were used to analyze the data. Enrollment trends of four years were analyzed with respect to Gender and discipline. Findings from this study depicts that female students are opting non-traditional subjects such as Business administration, Management, Engineering and Law. Furthermore trends show decreasing number of male students in every field of study. It may be the right time now to encourage male students to pursue higher education equally like females since this imbalance may create problems in economic and social terrain of society in near future.

**Key Words:** Higher Education, female students, enrollment trends,

**faculties, University of the Punjab, Bachelor's & Master's**

## **Introduction**

Success and progress of any country largely depends on the opportunities that are made available to its people in the field of education. In most part of the world females have been disadvantaged with regard to higher education and it is still evidenced in some parts of the world. Elimination of gender disparity in education has been a priority goal of many international development organizations (Ganguli, 2011). It is determined in literature that removing gender gap and educating girls will serve a range of improved outcomes including high economic growth especially for developing countries (Ghaida, 2004) but females had limited opportunities for acquiring higher education particularly in fields of professional and technical disciplines. This trend seems to be reversing now.

For the long period of time Pakistan has had large gender gaps in education (Asplund, 2008). Great efforts are done by Higher Education Commission of Pakistan to encourage the participation of females in higher education system. Participation of females have increased from 36.8% (2002) to 46.2% (2008). Recent statistics of gender shows that total male enrollment in the universities is 0.677 million (51%), while the enrollment of females is almost 0.642 million (49%). This statistic shows that difference between female and male enrollment is quite minimal. It means that at the level of higher education, males and females are getting equivalent opportunity (NEMIS, 2013). Historical facts elaborate that Human development efforts being done in Pakistan has favored men over women (Khan, 2005). Now things are changing in favor of women and participation of females is encouraged in every field of study.

To fill the above research void, in this study it is tried to explore the trends of higher education with respect to gender and discipline specifically in University of the Punjab. Trends of higher education in University of the Punjab with respect to gender and discipline in Bachelor's and Master's program from 2011-2014 is studied. University of the Punjab is one of the largest universities of Asia and study of this university will provide a holistic picture of the enrollment trends of students in Pakistan.

Trends of higher education with respect to gender and discipline are changing. Till early

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1990s females used to take up general or Arts subjects mostly but now enrollment of females in all disciplines is increasing (Chanana, 2008). To pursue higher education and their professional careers, they are entering in new fields also which were male dominated previously. The Millennium development Goals (MDG) set by World Bank and United Nations were aimed at removing the gender disparity in low level of education up to primary and secondary level till 2005 and at all levels of education by 2015 (Dandapat, 2013). With this positive change females are still lagging behind in STEM (Science, Technology, Engineering and Mathematics) fields.

### **Definition of Higher Education**

According to World Conference on Higher Education 1998, higher education is defined as “all types of studies, training or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent state authorities” (UNESCO, 1998). Generally Education beyond secondary level, particularly education at the level of college or university is denoted as Higher Education. In educational terrain of Pakistan, HE are the courses that lead towards the award of Bachelor’s degree, certificate of graduation or certificates of Post graduates, master’s degree, M.PHIL or MS and degree of Doctorate etc. In Pakistan, higher education is mostly offered by universities or other degree awarding institutions properly chartered by provincial or federal government and recognized by Higher Education Commission of Pakistan (Karim, 2007).

### **Importance of Higher Education**

According to UNESCO (2012) education is fundamental right of every human being and they are entitled to get education regardless of the circumstances in which they live. Education is beneficial for the whole human society. Education is also considered as one of the indicators of development and every person must have equal opportunity to be part of this development irrespective of any discrimination. For any country, higher education is considered a capital investment for its social and economic development (Batool, 2013). Higher education has utmost importance for social and economic development of any country. It is seen as a source of huge potential for the socio-economic development

of any country (Yasmeen, 2005). Higher education serves as a tool of empowerment for individuals as it fulfills the human capital needs of a country. So purposes of higher education is closely associated with development needs of society in general (Virk, 2003).

Higher education of females particularly serve larger benefits as it is related to the social, economic, personal and cultural aspects of human society (Shaukat, 2014). In one study, it is stated that “Education of women is important not only from the angle of equal education opportunity between the sexes, but also for the substantial social and economic returns to female education that can be achieved by raising women’s productivity and level of income” (Haworth, 2010, p.1). United Nations Educational, Scientific and Cultural Organization places great importance to the role of female graduates as they become skilled and trained human resources and make a significant contribution in the development process of their country (Inayatullah, 1996).

### **Trends of Higher Education with respect to Gender**

Trends of higher education all over the world are changing as females are getting edge over males in all fields. According to the report published by Higher Education Statistics Agency (HESA) 2014, 57.5% of students in universities of UK were female and 42.5% were male during the year of 2012-13. This increasing number of females is alarming as Leathwood and Read (2009) have also discussed this in their book about the headlines of Newspaper that are indicative of a public concern that women are taking over the Universities. It is a concern as it may create imbalance in society.

The government of UK has stated that:

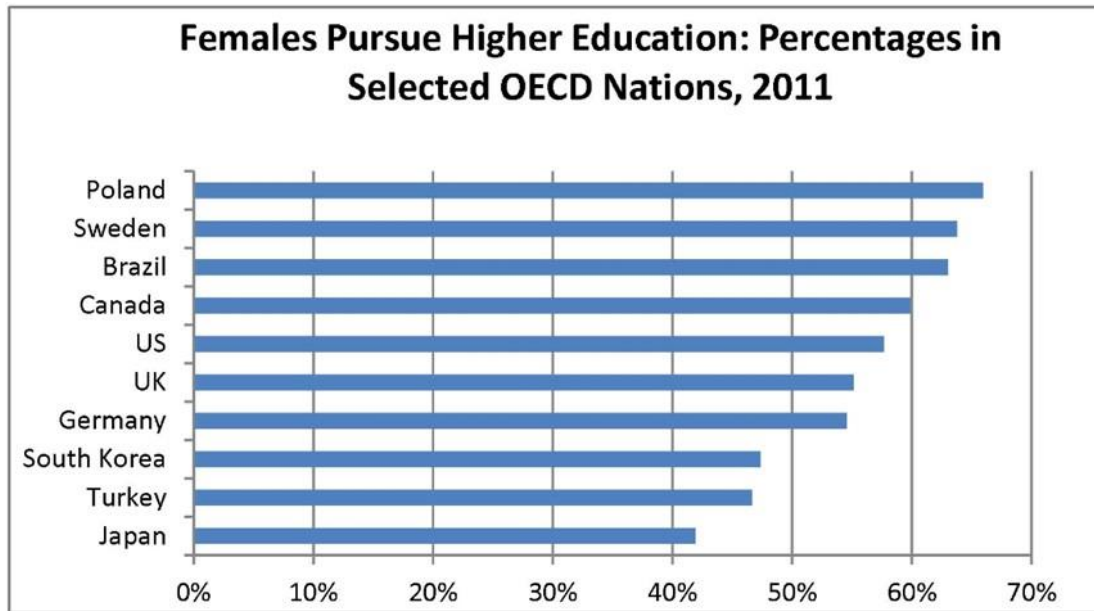
***“We are increasingly concerned about the male participation in higher education”***

In other parts of the world such as Iran and Portugal, the situation is almost the same as governments are startled at the growing number of women in institutions of higher education. Heads of medical institutions in Portugal were very much concerned about the encroachment of women as they are asking for measures to restrict the number of women students in medical schools (Leathwood & Read, 2009). According to the latest report from the National Center for Education Statistics has stated that women are

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getting more graduation degrees than men in the US. Women are now more serious regarding college degree and pursuance of their career (Mitchell, 2012).

This chart depicts percentage of females getting higher education in selected OECD nations.



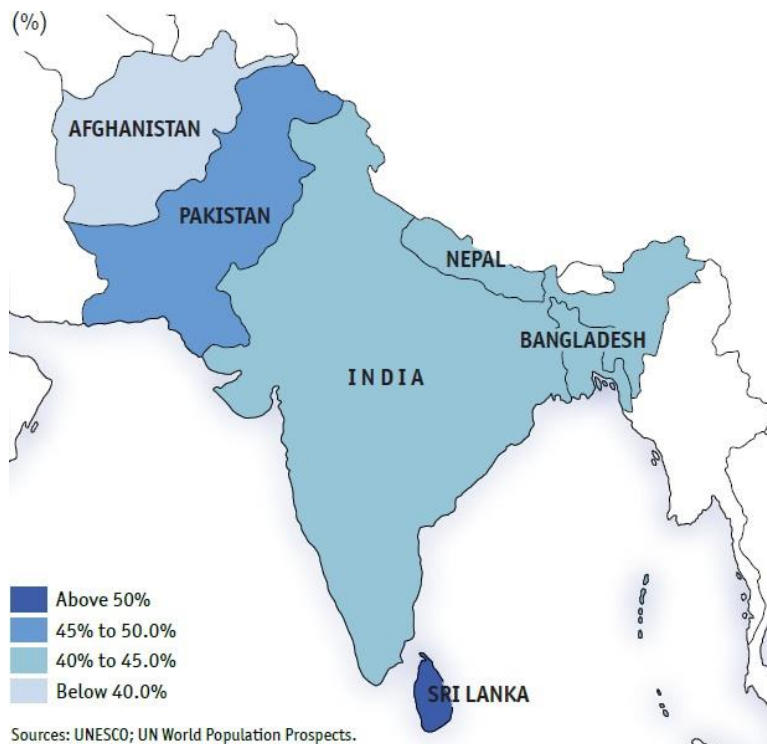
With respect to GCC countries, gender gaps are also getting wider as women participate in post- secondary education much higher than males. In universities, there are 47 women enrolled for each 100 women of college age as compare to 19 enrolled men in universities from each 100 men of college age in Bahrain. This situation is even extreme in Qatar where there are three females for each male in higher education (Karloly, 2010). In Saudi Arabia, gap between male and female in work force participation with lower level of education is larger than with higher level of education. The participation rate with university degree in Qatar between men and women are almost equal (90 % for men versus 92% for Qatari women) (Karloly, 2010). This improvement in the access of higher education towards female is seen in almost all parts of South Asia. In higher education system of India, a quiet revolution is in progress. At some elite institutions of India, females have outnumbered men and this change is accelerating day by day (Pushkar, 2012). In Sri Lanka, females who are attending specific universities have surpassed the

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<sup>3</sup> (icef, 2014)

number of males. In University of Peradeniya, there were 2,620 total numbers of students in 2009; out of them 1,453 were females. Statistics shows that women have strong presence in disciplines of humanities, Arts, social sciences, education and health in Sri Lanka. Currently female admissions into these disciplines have outnumbered male admissions with ratio of 2:1<sup>4</sup>. This situation has become so apprehensive that one of the India's leading liberal-arts colleges have given the suggestion that 40% seats should be reserved for males because of their declining representation (Economist, 2013). Statistics shows that percentage of females getting higher education in Bangladesh is also rising due to spread of public universities all over country (Monem, 2010).

The chart below depicts female students as a percentage of total tertiary enrollment.



**Figure 1: Female students as a percentage of total tertiary enrollment, 2011<sup>5</sup>**

<sup>4</sup> Figure 1 shows the female students as a percentage of total tertiary enrollment in South Asia in 2011

<sup>5</sup> UNESCO, 2012; UN World Population Prospects

## **Trends of Higher Education among Female Students**

### **Trends of Higher Education with respect to Discipline**

In the early 1990s, women used to get into colleges and universities specifically in subjects of General education or Arts. Now this trend is reversing as women are entering in latest and newer disciplines for pursuance of their studies. According to the report of AUUC (2011) enrollment of female students is increasing and this gender distribution is similar both at undergraduate and Master's level. There is still need to get progress in disciplines such as Science, engineering and technology. Women represent the majority of students in all disciplines except for some disciplines namely as mathematics, computer and information sciences (36%); architecture, engineering and related technologies (30%); and in the field of business, management and public administration (47%). At the level of PhD, majority of full time students were traditionally male but this number is recently differentiating in favor of women. At the level of doctorate, women's enrollment has surpassed men in United States for the first time in 2008 (AUUC, 2011). Women now exceed men in international university attendance with their graduation rates. Globally men to women ratio at university level are 93 men to 100 women. In depth study of this trend shows a significant difference among men and women in terms of choice of their field of study.

Men still dominate in fields like engineering, computer sciences, manufacturing and sometimes exceeds 80% of total student body in the bachelor's degree. Women are enrolled in disciplines such as education, Arts, humanities, health and welfare. This gap among different fields is widening in developed countries. In Sweden, there are only 30% women in engineering, construction and manufacturing while 60% of the college students are pursuing Arts and humanities (Chamie, 2014). In the past women used to get concentrated in disciplines like social sciences and humanities-fields that are not as much demanded in labor market but these trends are changing as women are moving towards the field of science and engineering also (UNDP, 2005).

The change in trends of higher education is also evident in the choice of discipline and subjects. In India women were largely enrolled in humanities and other social science programs back in 1980s. In the best engineering and business schools such as Indian Institutes of Technology and Indian Institutes of Management, women remained in smaller numbers. Recently more of them have started taking up male-dominated disciplines like Economics. At St. Stephen's university it is reported that almost 70% of Economics students are women. Although in the year 2012, there is large flow of the women applicants getting admission in such

prestigious institutions. It would be too early to claim the advances done by women but current scenario can be first stage of quiet revolution (Pushkar, 2012).

### **Trends of Higher Education in Pakistan**

Female enrollment in HE of Pakistan is also experiencing a change. There is a general impression of a developing country that females are treated unfairly in field of education. In case of Pakistan this impression is true but at primary level education. However, in institutions of higher education enrollment rate of females depicts entirely a different picture. During 1993-2010, there is remarkable increase in enrollment rate of females in 'professional colleges'. It has increased at a rate of 8% annually in seventeen years. In the year 1993, there were only 100,400 females studying in these institutions and in 2010 the number has increased to 261,000 (Burki, 2012).

Current statistics shows remarkable increase in enrollment rate of female students than males at higher education level. According to the statistics of the year 2010-11, there are some universities in which number of females exceeds the number of males such as University of Karachi where enrolled female students are 14,785 against the male enrollment of 12,419<sup>6</sup>. In University of Gujrat established in 2004, females comprise 72% of the total population of students. In another study conducted at University of Gujrat, Pakistan, it is observed that significant proportion of girls is striving to get higher education in spite of cultural barriers. Even in some cases girls have outnumbered boys at higher education level. Significant proportion of women is coming out and taking part in academic activities (Shaukat, 2014). Maqsood (2012) has explained this phenomenon in this way: "it is rise of consciousness amongst females that is the driving factor in this context".

According to the Pakistan Education statistics (2013-14), total enrollment in the universities at the level of post- graduation is 1.595 million. From this enrollment around 86% (1.365 million) students are enrolled in public universities, while around 14% (0.230 million) students are studying in private universities of Pakistan. It is clearly evident that majority of students are studying in Public sector Universities (Ailaan, 2015). Public sector universities accommodate a major portion of the students, whereas contribution from private sector is almost one-third in overall enrollment. According to statistical information unit of Higher Education Commission of Pakistan, there are 91 universities as on 31<sup>st</sup> December, 2014 in Pakistan working as public



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sector institutes (Pakistan, 2015).

### **Rationale for selecting University of the Punjab, Lahore as a Case**

University of the Punjab is one of the public sector universities in Pakistan<sup>7</sup>. It was established in 1882 and it is one of the largest and oldest universities. Students from all around Pakistan and abroad come here to fill the thirst of education<sup>8</sup> (PU, 2015). The university consists of five campuses, thirteen faculties, and ten constituent colleges. Furthermore university has seventy three departments, centers, institutes and almost six hundred fourteen affiliated colleges. University of the Punjab has always played a leading role in higher education of Pakistan. University endeavors to provide a conducive environment to students who come for the quest of academic activities. Historical trends of university indicate that university of the Punjab is female dominated university. According to fact book (2014) of PU the ratio of male to female students in university is 49.23% to 50.77%. Current statistics shows that females are taking admissions in varied fields of study that used to be associated with males previously in university. (Khawaja, 2012).

According to higher education commission of Pakistan (HEC), higher education consists of two main segments: the University/Degree awarding institutes and other affiliated colleges sector. For this study, higher education is considered Bachelors (16 years) and Masters (16 years) degree offered in University of the Punjab, Lahore Campus. Enrollment trends of male and female students of four years (2011-14) is evaluated with respect to gender and discipline in different faculties. According to PU Fact book (2014) number of female students in eleven faculties of Punjab University is 14843. Out of this number, there are 6541 and 8302 in Masters (16 years) and Bachelors (16 years) programs respectively.

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<sup>6</sup> (ICEF, 2014)

<sup>7</sup> <http://www.pu.edu.pk/>

<sup>8</sup> <http://pu.edu.pk/page/show/AboutUs.html>

### Why this trend is reversing?

Literature states varied reasons for reversal of this trend among males and females in higher education. Persistence of gender gap between males and females is due to developmental and behavioral differences (Goldin, 2006). Changing pattern of educational attainment in males and females is due to changing family formation such as timing of marriage, divorce rate and fertility (Van Bavel 2012; Schwartz and Han 2014). The rising number of single parent households is also causing this reverse trend in higher education (Kelesmant, 2012). In OECD countries, women’s capability to merge work and studies with family life, lesser discrimination against females in families, their higher preparation for higher education and targets to obtain tertiary degrees are factors for this reverse trend (ICEF, 2014). Parent’s education is one of the prominent factors as those parents who are educated, tend to highly educate their daughters (Zahedifar, 2012).

### Findings

Table 1: Gender Distribution of students in different faculties and difference of male and female proportion in percentage (2011-14)<sup>9</sup>

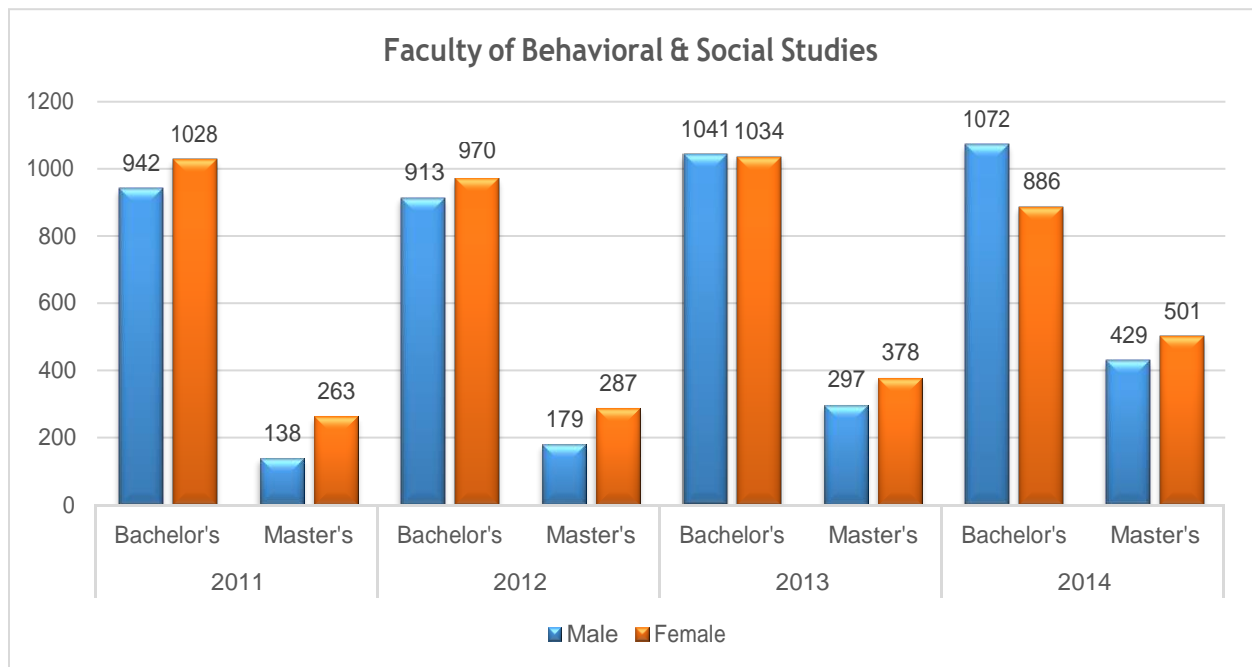
Sr#	Faculty	2011		2012		2013		2014		Total	
		M	F	M	F	M	F	M	F	M	F
1	Faculty of Behavioral & Social Sciences	1080	1291	1092	1257	1338	1412	1501	1387	5011	5347
		9%		7%		3%		-4%		3%	
2	Faculty of Economics & Management Sciences	1427	1739	1289	1683	1604	1995	1616	1979	5936	7396
		10%		13%		11%		10%		11%	
3	Faculty of Arts & Humanities	340	881	384	919	419	1019	476	943	1619	3762
		44%		41%		42%		33%		40%	
4	Faculty of Science	2692	2703	2840	2814	3353	3034	3648	3015	12533	11566
		0%		0%		-5%		-10%		-4%	
5	Faculty of Life Sciences	219	1206	235	1218	541	1638	585	1961	1580	6023
		68%		56%		49%		39%		74%	
6	Faculty of Engineering & Technology	1421	175	1728	201	1480	184	1319	193	5948	753

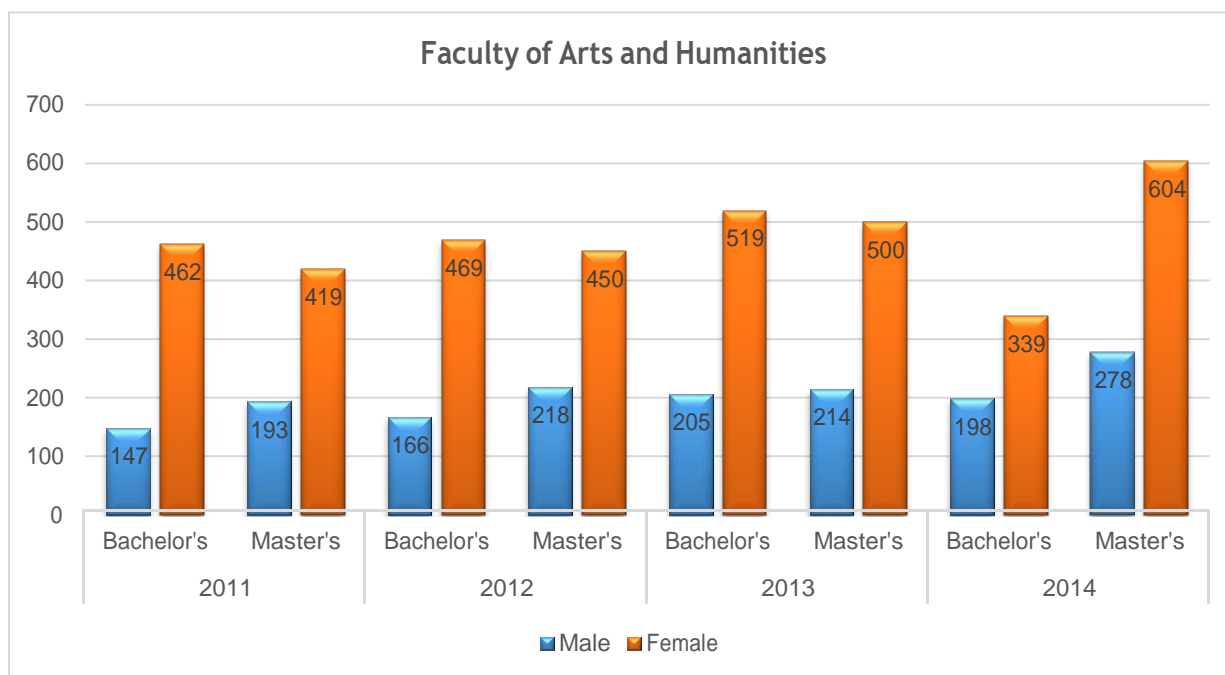
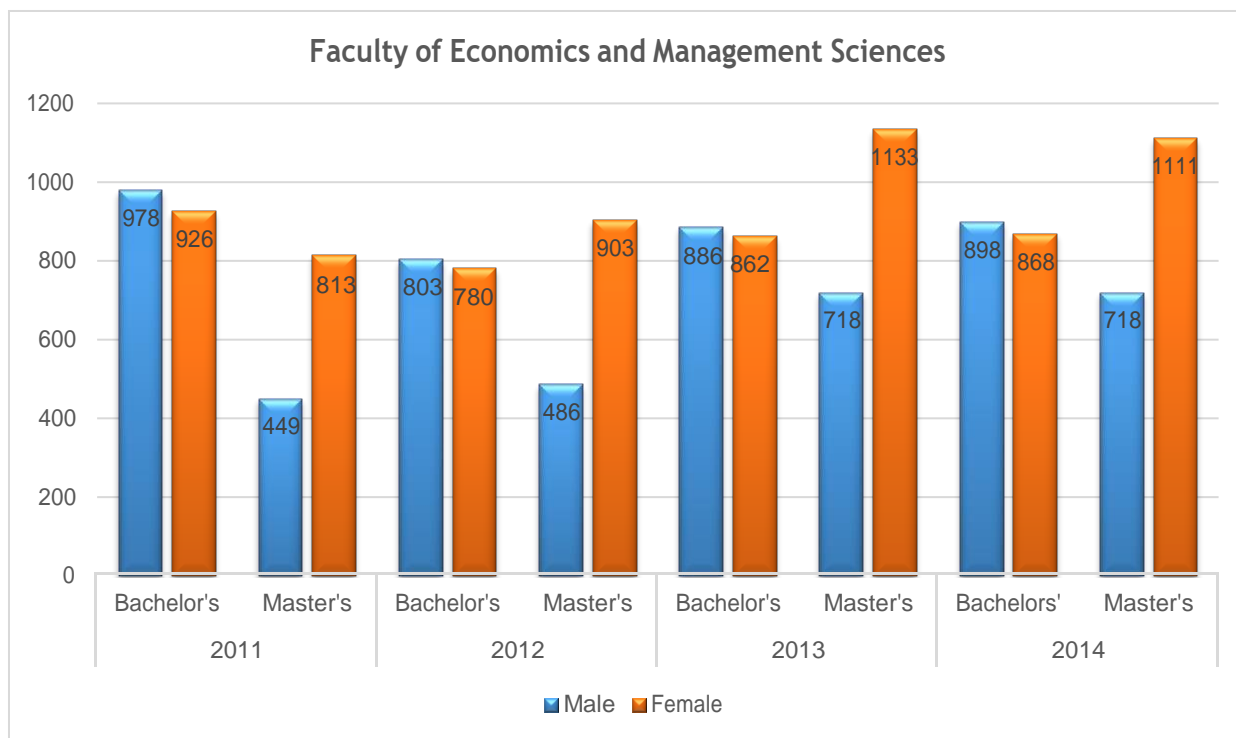
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		-65%		-91%		-86%		-18%		-690%	
<b>7</b>	Faculty of Law	1167	331	0	0	1438	353	1869	351	4474	1035
		-253%		0%		-49%		-31%		-332%	
<b>8</b>	Faculty of Commerce	2643	1628	2367	1616	3035	2045	2734	1897	10779	7186
		-25%		-16%		-21%		-7%		-50%	
<b>9</b>	Faculty of Islamic Studies	42	172	179	376	47	167	42	172	310	887
		37%		47%		57%		27%		65%	
<b>10</b>	Faculty of Education	206	1307	226	1384	341	1991	385	2027	1158	6709
		72%		67%		69%		52%		83%	

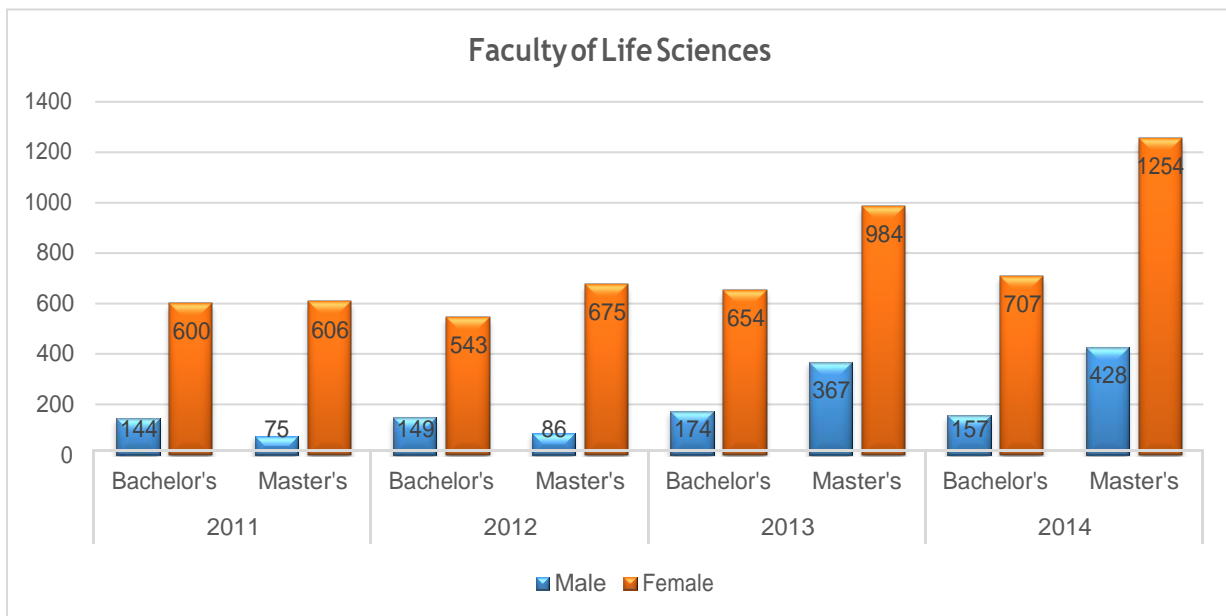
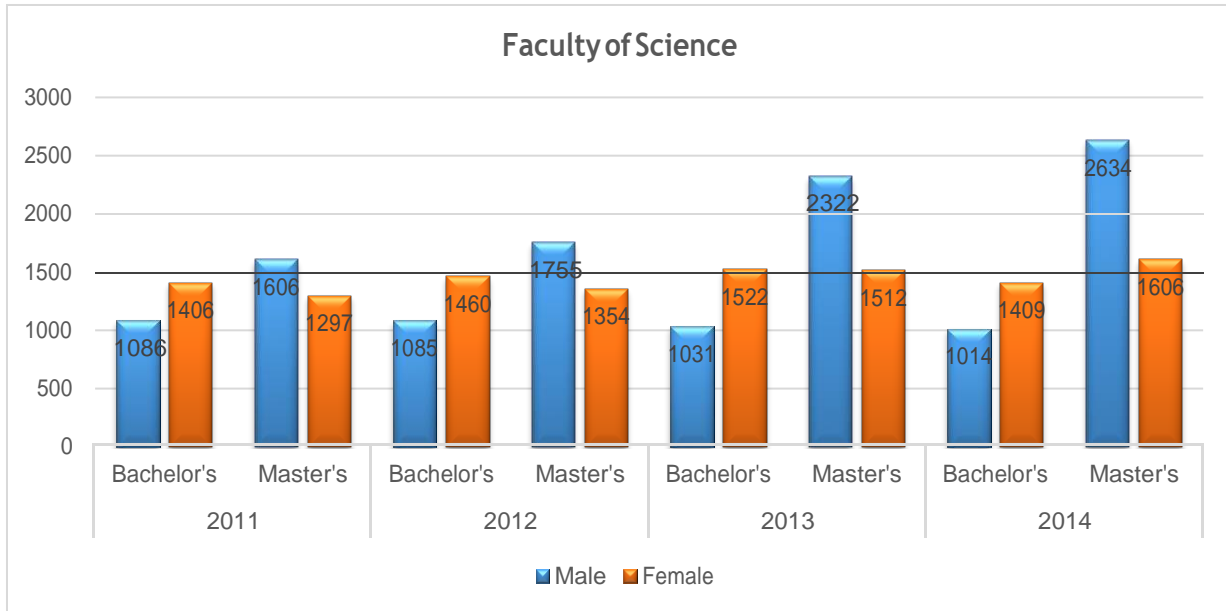
<sup>9</sup> Source: PU, Fact books (2011-14): <http://www.pu.edu.pk/>

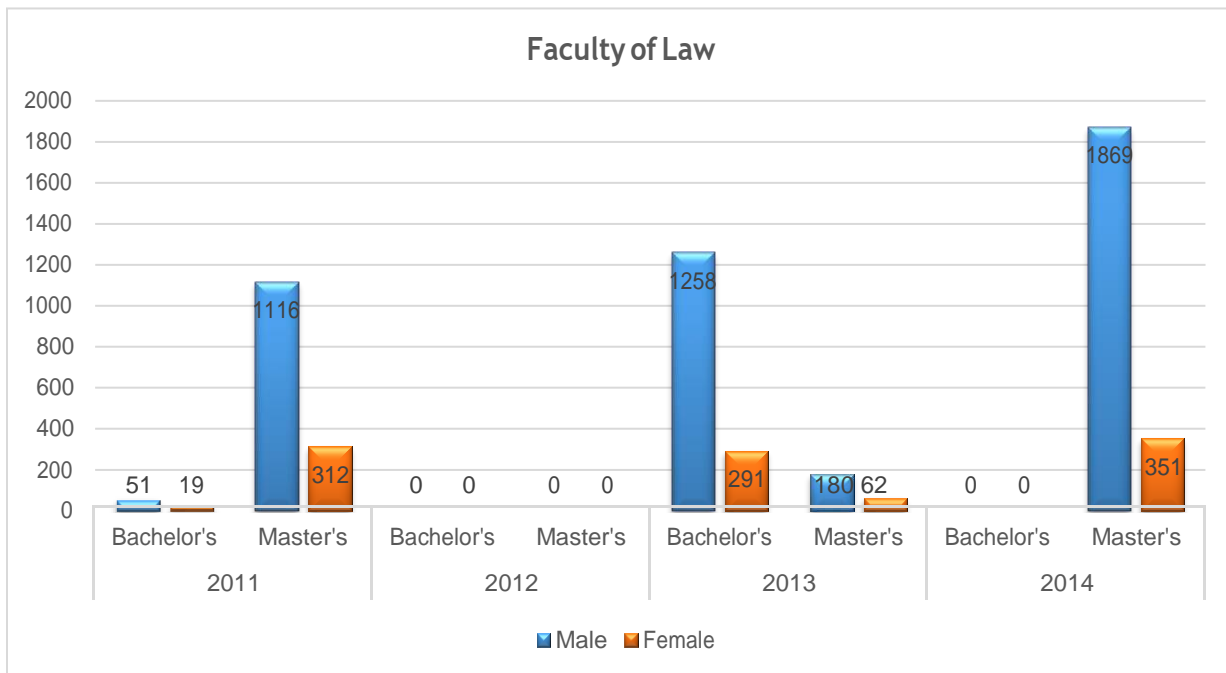
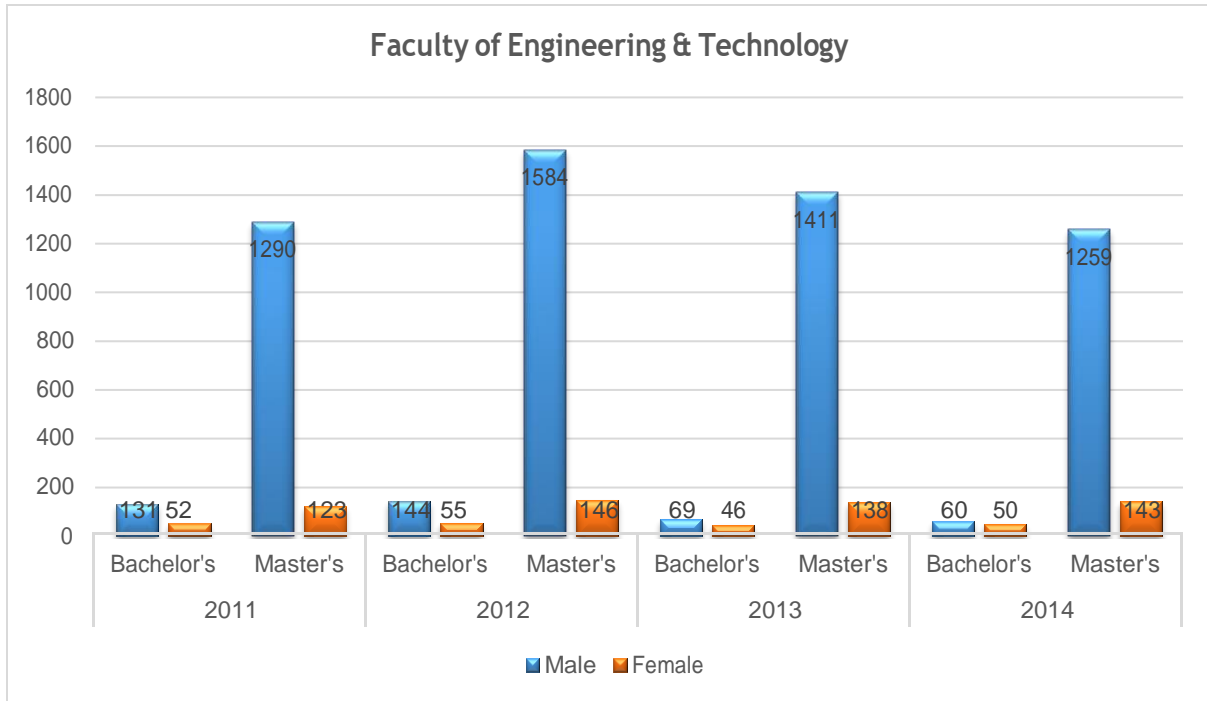
### Gender Distribution of each faculty with respect to degree program [16 years (BS, Master's)]



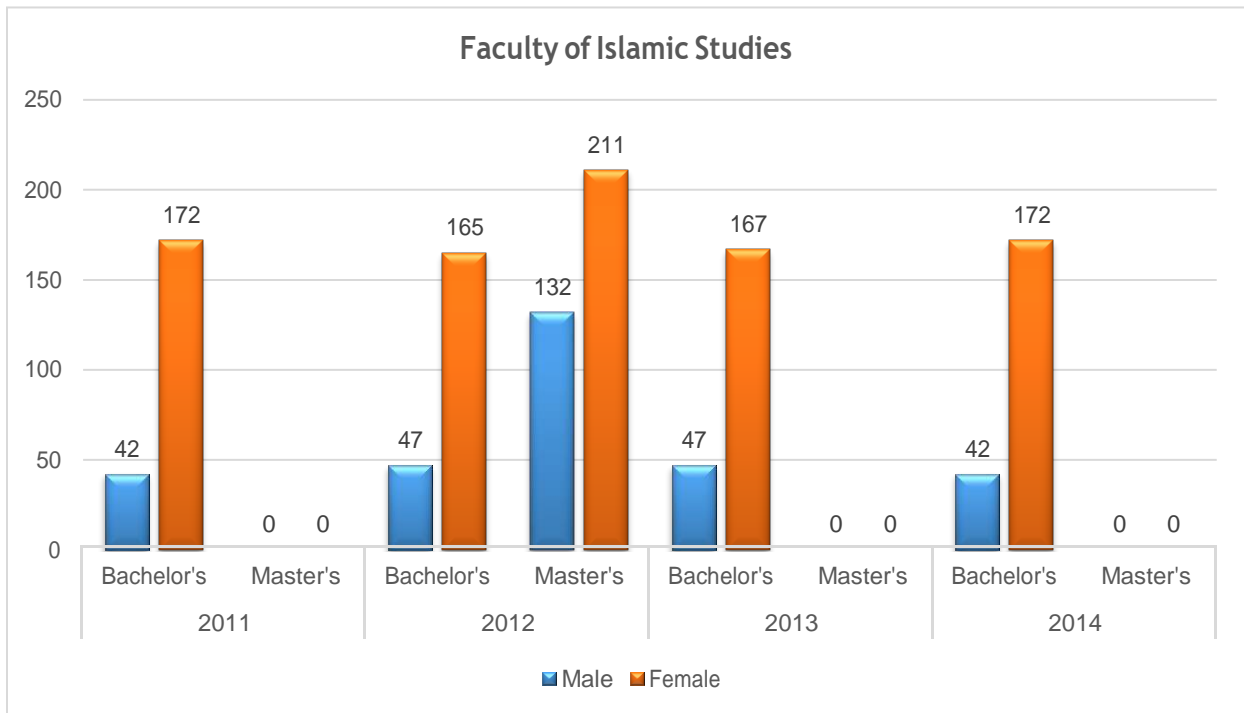
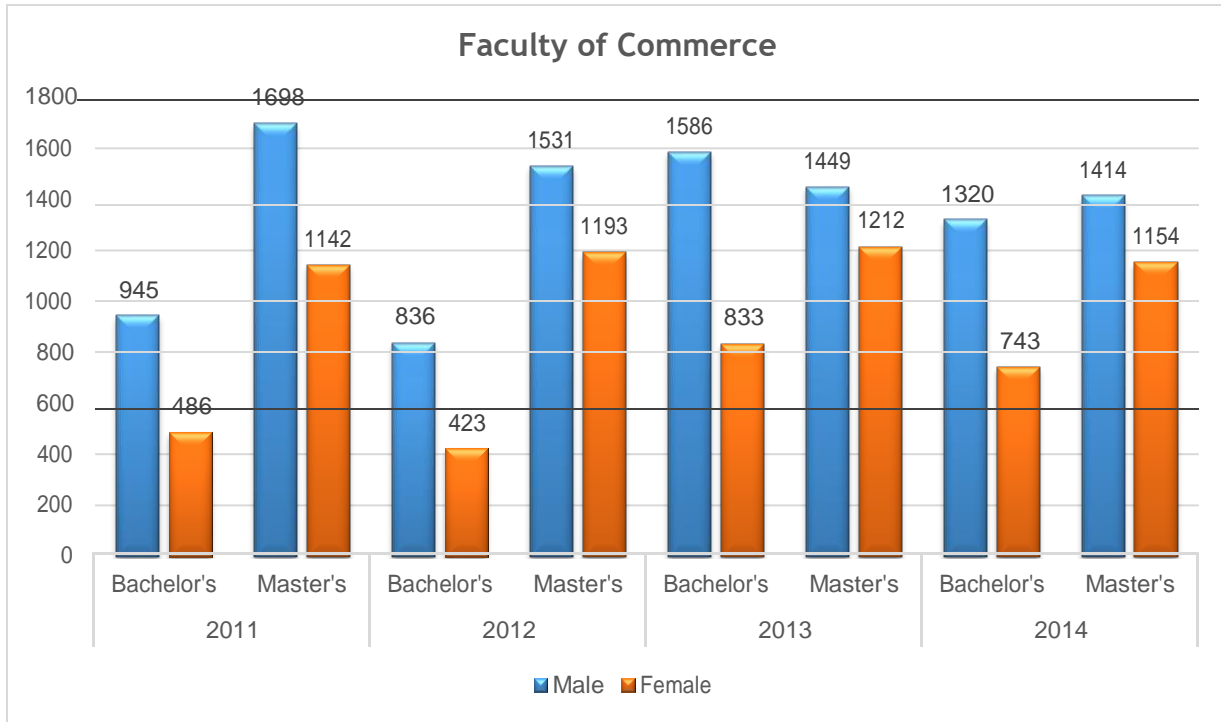


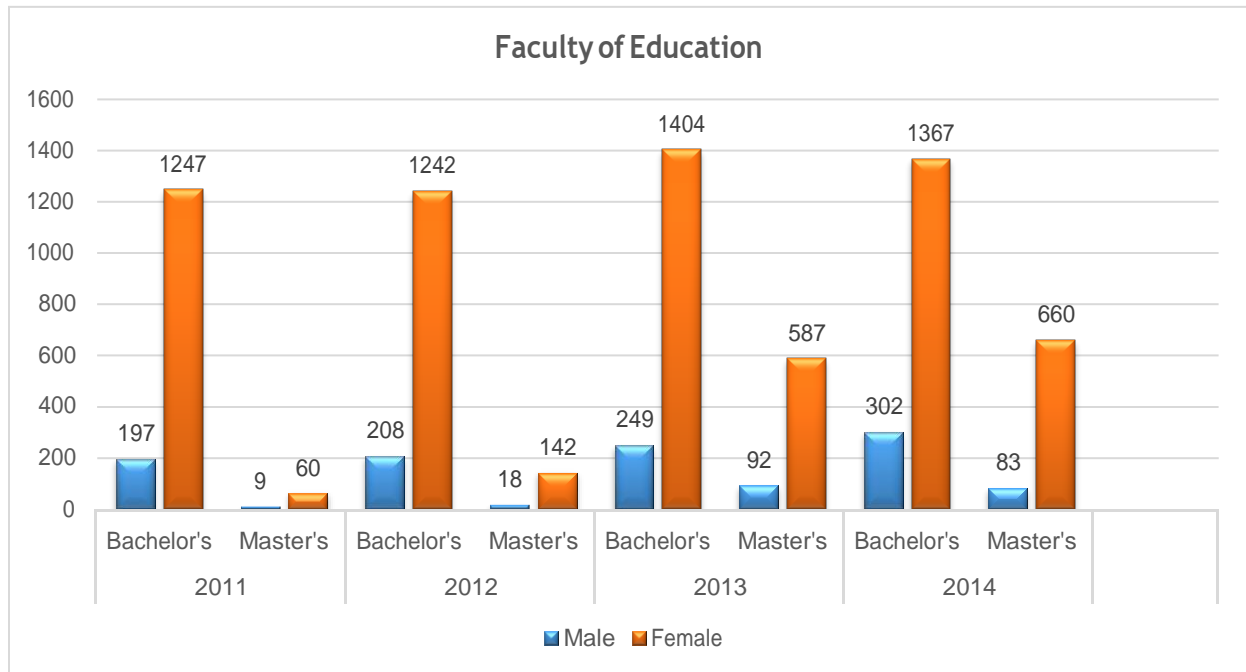
## Trends of Higher Education among Female





## Trends of Higher Education among Female





According to Fact books (2011-14) of university of the Punjab, data shows that in faculty of Behavioral & Social Studies female students are more than 52%. If we compare this proportion with respect to the degree program then we can identify that in Bachelor's program number of females is higher than the Master's Program. In Master's program number of male and female is almost equivalent. In faculty of Economics and Management Science, female students are 55%. If we compare this proportion with respect to the degree program then we can identify that in Bachelor's program number of female students is higher than the Master's Program. In faculty of Arts and Humanities, females are almost 70%. If we compare this proportion with respect to the degree program then we can identify that in Bachelor's and Master's programs number of female students is higher than male students.

In faculty of Life Science females are almost 80%. If we compare this proportion with respect to the degree program then we can identify that in Bachelor's program number of female students is much higher than male students while in Master's program this situation is very much similar as females are large in number. In faculty of Islamic studies females are 80%. In faculty of Islamic studies, four years bachelor's Program does not exist so it is not possible to make comparison among degree programs. In Master's program number of female students is much higher than male students. In faculty of Education females are almost 85%. If we compare this proportion with respect to the degree program then we can identify that in Bachelor's program



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number of female students is much higher than male students while in Master's program this situation is very much similar.

### **Discussion**

Analysis of secondary data of four years (2011-14) of university of the Punjab reveals that in almost each faculty, number of females in both Bachelor's and Master's programs is increasing with every passing year.

In faculty of Behavioral and Social Studies, number of females in Master's program have increased slightly from 2011-13 but in 2014 number of females have reduced. In case of BS program number of females is increasing with every year. The rationale behind this trend can be that admission in BS program (4 years) is obtained right after intermediate and majority of females and their parents want their daughters to at least get education up to graduation (Ambreen, 2013). The four years program of BS is not considered equivalent to master's generally. According to UNESCO, 2012 number of women have reached equivalent to men in getting Master's degrees while in attaining Bachelor's degree, they have an edge over men.

In faculty of Economics and Management Sciences, number of females in master's program is less than males but this gap is getting narrower with every year. The rationale behind this trend may be increasing demand of females in the discipline of economics and management sciences.

Furthermore management and business education offer multiple career possibilities like consultancy, sales and other marketing positions (Goudreau, 2010). In BS program number of females is much higher than males and this gap is getting wider from 2011 to 2014.

In faculty of Arts and Humanities, females are much higher than males in both BS and Master's Program. Arts and humanities is a field that is typically associated with females as science subjects were not considered appropriate for them. That is why females are almost twice than males in faculty of Arts and Humanities. According to the Millennium Development Goals report of 2010, observation of various fields of study indicates that women are overrepresented in the field of Arts, Humanities and social sciences whereas underrepresented in the field of Science, technology and specifically in engineering (Calvo, 2015).

In Faculty of Science trend of males and females is different in case of both Bachelor's and

Master's programs. In Master's program number of females is higher than males but in Bachelors program (four years) number of males is higher than females.

In case of faculty of Engineering and Technology, number of females is much lower than males in both BS and master's programs but this number is increasing with slow pace. Females are making this progress by entering into those fields of study which were previously male-dominated areas and women were not present there at all. All around the world the percentage of women in faculty of science and engineering is increasing (ICEF, 2014). According to Papadopoulou and Radakovich (2005), this slow progress means that it is initiation of a process for overcoming some of the stereotypical problems. As such this phenomenon may mark a transition in culture which is important for equalizing gender opportunities.

In faculty of 'Life sciences' number of females is higher than males in both Bachelors & Masters Programs and this gap is getting wider with passage of time. It shows that females are very much interested in discipline of Life Sciences. In terms of participation rate, number of females has increased in field of Sciences as compare to males Invalid source specified.. In universities of UK, females outnumber men in majority of courses. Some of them are veterinary science and subjects related to medicine and education. Men are still in majority in subjects such as engineering, technology and computer science. But the difference between males and females is getting narrower in discipline of computer sciences (Ratcliffe, 2013).

In faculty of Law, proportion of females is much lower than males but number of females is getting increased now. In the past, majority of females in universities used to go for traditional subjects such as arts, literature and languages (AUCC, 2011). Law was the discipline typically associated with males but now females are getting interest in this field also. They had lesser presence in fields like mathematics and natural sciences and more lesser in engineering, technology and Law (Moore, 1987). In current decade, women had made changes by moving into the disciplines like Medicine and Law in many countries (OECD, 1986). Females are opting 'Law' for varied possibilities of employment in job market as they are optimistic regarding employment opportunities in this particular discipline (G.P. Kelly, 2012).

In faculty of Commerce, number of males is more than females in both Masters and Bachelors program but the number of female students are also rising. This shows that women are taking interest in fields of commerce and business. It is evident from history that from 1990s,

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jobs in management and chartered accountancy have increased and this may have created a pull for women (Chanana, *Gender and Disciplinary Choices: Women in Higher Education in India*, 2004).

In faculty of Islamic Studies and Education, number of females is much higher than males. Islamic Studies and Education are traditionally female-dominated disciplines. Cultural preferences of religious orientation for women may have caused this trend. Teaching profession is traditionally considered suitable for women. While business, Engineering, sciences were particularly preferred for male members of society. Education is considered subject of females and in Pakistan, women are appreciated if they want to become teacher in future after getting university education. For many years women have been clustered in subjects traditionally termed as 'feminine' such as education, welfare, languages, arts and health (Chanana, 2001). According to UGC (2012), female consists of 58.8% of all students study in discipline of education in India.

### **Conclusion**

Analysis of data in this study depicts that number of female students in higher education is increasing in Pakistan. University of the Punjab, Lahore was taken as a case to study in this research. In all faculties of University, enrollment of females has improved at both Bachelors and Masters Level. Females are getting admission in Engineering, Law, Economics, Management Sciences and Commerce that used to be male dominant disciplines. University of the Punjab is one of the largest universities of Pakistan. Findings from this university can be generalized to all other higher education institutions of Pakistan. Enrollment trends and increasing number of females in different disciplines provide a reflection of the future that females will take over universities in Pakistan. Enrollment trends show decreasing number of male students in every field of study. It may be the right time now to encourage male students to pursue higher education equally like females since this imbalance may create problems in economic and social terrain of society in near future.

## **Recommendations**

- In today's scenario it would be desirable that whenever the issue of equalizing gender opportunities is discussed, it should not only refer to women rather men should also be included in agenda. As stated by De Leon (2004), it is important to encourage men to participate actively in higher level of education otherwise a new gap can arise between both sexes in the long run. In Iran student body had grown to more than 60% for females during 1997-2005. In order to deal with this situation some universities in Iran have devised a quota system in favor of men for balancing the growing gender disparity. As an even stern and rather questionable measure, Tehran University is accepting only males in multiple fields of engineering, forestry, mathematics and mining (Esfandiari, 2012). However, nothing has been done at the national policy level.
- University of the Punjab is one of the largest universities of Pakistan and enrollment trends at the Bachelors and Masters level provides insight for future scenario of higher education institutions. Administration of Punjab University should develop kind of policies that can be helpful for female students to adjust in university's environment.
- Female students are less interested in getting admissions in some fields such as Law, Engineering and Technology. There is need to encourage females to take admissions in these male dominated disciplines. Likewise in some faculties such as Economics & management sciences and faculty of Life Sciences, males should be encouraged to take admission there. Punjab University in its individual capacity can announce new policies such as quota system for limiting the number of women in certain disciplines and the number of men in other ones. However, the preferable solution could be development of policy and allied legislation for equalizing gender participation at least in higher education. Studies such as the current one can constitute the base documents for gender-balancing policy at national or provincial level.
- Increasing number of females in higher education depicts future of Pakistani economy in which they will be the major contributor in economic development of country. Females will leave their homes and will enter in the workforce. This change will have a profound impact on the economic, social and political order of Pakistan. There is need to incorporate necessary changes in society of Pakistan so that people get aware about the importance of higher education for females and start accepting this change.

## **Trends of Higher Education among Female**

- Increasing number of females in higher education also depicts a concern about decreasing number of males in higher education. It has or will become a dilemma of our society because traditionally males are considered bread earners of family and when they will not get higher education then they will not be able to get the better paying jobs. On the other hand females based on their higher level of education will take the higher positions in society that can create imbalance in society. Therefore steps should be taken to improve the enrollment rate of males in higher education institutions so that balance among both sexes must be maintained.
- There is a quiet revolution in Pakistan by women with reference to their enrollment trends in higher education institutions. A quota system may be needed in future universities of Pakistan in which certain seats could be reserved as male quota to improve the number of male students. Introduction of quota system in favor of males is one of the options but this may create problems as merit system will get compromised.

## **Future Directions**

- Statistics shows a clear edge of females over males in university enrollment but females lag behind males in employment. In organizations number of males is quite more than females especially in upper management level (Chamie, Women More Educated Than Men But Still Paid Less, 2014). Cultural norms and societal expectations regarding roles of men and women and their inbuilt biological differences are restricting females to get advantage of their educational achievements. Findings of this study also highlight this fact that people are appreciating higher education of females but some of them still restrain them to go for work outside home. It is suggested that future research should be conducted to gain understanding of this fact and its possible reasons.
- ‘University of the Punjab’ and its faculties provide a limited view about the male/female student ratio in Pakistan. It is recommended that future research should be conducted in other higher educational institutions of Pakistan to gauge the broader view.
- This study is conducted only for Punjab University which is a public sector university.

Future research can be conducted in private sector universities of Pakistan. It will be an insightful study to differentiate the enrollment trends of females and major drivers for

them to get higher education in private universities.

- In this study, enrollment trends of female students at bachelors and masters level were studied. In future, research should be expanded to MPHIL and PHD programs of university of the Punjab and of other universities also.

## **Limitations of the Study**

This research study has some limitations that may affect implementation of its findings to the whole population:

- Time and monetary resources were limited; it was not possible to cover all 91 public sector universities in Pakistan.
- Enrollment data of students was available from Fact books of University for limited number of years and data from registrar office was also incomplete.

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