Gender Equality and Women's Empowerment in Academia:
The Case of Armenia

Author: Mikayel Mirzoyan

Bachelor Thesis: UTVK03

Spring Term 2013, 15hp

Supervisor: Abdulhadi Khalaf

Lund 2013

Abstract

The aim of the study is to analyze gender equality and women's empowerment in Armenian academia over the past decade. For these purposes a Subjective Women's Empowerment index has been developed as a result of data analysis from two small-sized surveys. The theoretical framework primarily draws upon the Human Capital and Subjective Well-being theories. Analysis of the statistical data has provided thought-provoking insights on the relationship of subjective and objective measures, which in some cases strongly differ. Thus, the findings on these conformities and discrepancies laid the foundation for further qualitative research analyzing the causal roots.

Key words: *gender equality, empowerment, higher education, Armenia*

Acknowledgement

Table of Contents

1. Introduction

Gender equality, in addition to being a human right, is also catalytic to social, economic and environmental progress (UNDP, 2012). It is difficult to overestimate the importance of universities in our societies – academia is not only the birthplace of scientific discoveries and research, but is also a personality-shaping cradle for the vast majority of future decision makers. Among else, this makes the issue of gender equality and women's empowerment in academia an important research topic.

The aim of this research is to study gender equality and women's empowerment in the Armenian academia for the past decade. Particularly, this study aims to research the relationship of subjective and objective indicators of gender equality and women's empowerment in academia. Gender composition is considered to be a major objective indicator affecting women's empowerment. During the research process this assumption has been critically reviewed through the prism of existent theories and statistical data. At the same time, just like it is important to differentiate between women in politics and feminist influence (Borchorst and Siim, 2008), much the same way gender parity in academia by definition does not necessarily imply women's empowerment in higher education and research.

Academia is the world of learning, teaching and research, thus in this project, both students and scholars engaged in higher education and research have been studied. At the same time, it is important to differentiate those two groups, because the factors and effects can vary strongly from undergraduate and graduate students to doctoral and postdoctoral scholars. Throughout the study both are examined combined, nevertheless, through the sampling the main focus will be on the former, due to the extremely limited amount of research undertaken and thus published literature.

When it comes to studying gender empowerment and the field of education and academia, most of the research is focused on primary through secondary levels of education. Although Babayan (2001) does provide the idea on reconstruction of society's gender culture through higher education, in the case of Armenia no combined study of objective and subjective indicators has been performed. In that sense, development of a new index is bringing together two approaches of studying empowerment in Armenia, not only in the higher educational system, but as a whole. Furthermore, the relationship between empowerment in academia and on a nationwide scale is analyzed. The main boundaries and limitations of the research are the sizes of the surveys, which could have added more validity to the results. Additionally, the basic usual limitations that are

affecting studies, which are mostly of quantitative nature and do not extensively use qualitative methods, are present.

2. Background

The historical overview and the descriptive presentation of the socioeconomic institutions are aimed at providing background information and constituting the domain in which the study operates.

Being among the first countries to promote some forms of legal gender equality, Armenia has stagnated over a long period of time, when it comes to these democratic processes. Nowadays, in comparison to the west, the lifestyles of women and men in Armenia are more different, the household related duties being more dominant for women, while men are more engaged in activities outside the household (Demirchyan, Petrosyan and Thompson, 2012). Over many centuries the social identification of Armenian women was self-identification as a woman-mother and woman-protector of the family, thus women were mostly engaged in charity, providing assistance to orphans and the elderly, yet at the same time it so happens that, many centuries before the suffragist and feminist movement, Armenian law and policy-makers and statesmen considered women's rights in their deliberations, and the ancient Armenian codes and legal regulations provide indirect evidence of the fact that in the past, Armenian women were treated as equal members of society on issues related to inheritance, property rights, and so on (Aslanyan 2007). The First Armenian Republic of 1918-1920 was one of the first nations to give women the right to vote and to be elected (Aslanyan, 2008). Nevertheless, evidentially, these kind of early developments stagnated over the course of XX century.

Education-wise, Wilcox (1929) describes that since the year 1921 when the seventy-three per cent of the population of Armenia was illiterate, 35.000 children and adults (around 3.5% of population) have passed through the courses of instruction each year, furthermore suggesting that it was the very genuine and universal love of education that has made it possible to enroll large numbers of adults in educational courses; at the same time, most noteworthy of all is the existence of then The Department for the Welfare of Women supervising education among women. At the moment, the literacy rate among adults is 100%, while the tertiary school enrollment in 2011 was 49% which is considered relatively high (World Bank Group, n.d.), although the quality of that education is highly debated. When it comes to contemporary higher education, Karen Vardanyan, a department head at the Ministry of Education and Sciences of the

Republic of Armenia, describes the fallacious traditional mentality that everything will be all right if one has higher education and a diploma, adding that "especially with girls, that diploma often becomes a dowry item: they get married and in many cases never work" (Gevorgyan, 2012), this claim is also supported by the World Values Survey (1997), see Figure 1.

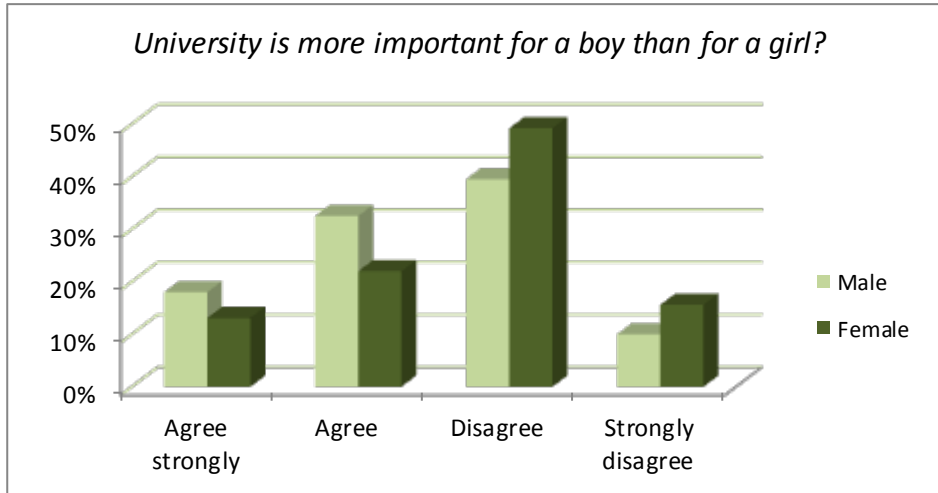**University is more important for a boy than for a girl?**

Figure 1 | Gender-based importance of university
Source: World Values Survey, 1997

Nowadays, from a legal perspective, men and women have equal rights, since the current legal framework of Armenia was designed using the Western 'role model', the Armenian constitution stipulates the equality of all citizens and none of the articles in the constitution are gender specific unless they address privileges given to females due to their biological ability to bring new life, as well as both men and women have equal rights in marriage, divorce and with regard to children; however, there are several weaknesses in Armenian laws affecting women, particularly the absence of definition of gender discrimination or sexual harassment (Manassarian 2009, p144). Thus also, although in Armenia women and men have equal rights in economy, in the employment field, on the labor market as well as to get equal pay for the same job, as a matter of fact the Armenian legislation does not guarantee women and men equal opportunities (Hasratia, 2004).

As it has been noted, when it comes to business activities, gender specific barriers are typical for countries in the South Caucasus, mainly due to the traditional views on women's role, distrust of the banks to provide loans to women, lack of information, market related skills and business relations, as well as the limited access to resources due to a gender biased privatization process (Ruminska-Zimny, 2002). Men's migration is another major factor affecting nowadays Armenia,

the remittances are central to the economy making up for more than 10 percent of the GDP, but at the same time the effects on women's empowerment are highly debated, while some studies point to the empowerment of women whose partners migrate for work as women left behind must take charge of new duties and decision making, other works emphasize that women's new tasks do not necessarily translate into their empowerment Menjívar and Agadjanian (2007).

3. Theoretical Framework

This section gives an account of the theoretical frameworks that have been used for this research, analyzing the advantages and limitations of methodological approaches.

3.1 Definition of Empowerment

Amidst the vast number of various definitions, more generally empowerment is often described as the multi-dimensional social process that helps people gain control over their own lives (Page and Czuba, 1999). Four terms most often included in technical definitions of empowerment are options, choice, control, and power (Petesch, Smulovitz and Walton 2005, p40). Due to the extensive use of quantitative methods in this paper, the need for technical definitions necessarily arises.

The definition of Empowerment used in this paper is the process through which those who are currently disadvantaged achieve equal rights, resources and power (Mayoux, 2008). Although the specific calculation of the index will be described in the Methods section of this paper, it is based on the abovementioned definition.

However, it should be noted that not everyone accepts that empowerment can be clearly defined, let alone measured, and for many feminists, the value of the concept lies precisely in its 'fuzziness' (Kabeer 2001, p18). Nevertheless, while acknowledging such limitations, for the purposes of this research the need for definition and measurement is self-evidential.

3.2 Human Capital Theory

Human capital theory was born some four decades ago, and is now a familiar concept, used daily in public debates and a favorite phrase of many politicians who want to stress the relevance of developing and disseminating new knowledge for maintaining high levels of welfare (Hartog and Maassen van den Brink 2007, p1). Human capital theory is important to this research in a sense that it provides an insight on how human capital affects empowerment.

A large body of literature describes various implications of human capital on empowerment and well-being. For instance, Usher and Cervenan (2005) describe the positive correlations between female educational attainments and capacity to make informed decisions about various aspects of life including health, marriage, and reproduction.

Although the relationship is not simply linear, there is a positive correlation between educational attainment and economic productivity, exercise of social and political responsibility and the authority to demand the respect of individual and groups' rights (Assié-Lumumba, 2006). These findings may vary slightly for different nations, but conceptually one could claim that, particularly in liberal democracies, these differences are insignificant.

3.3 Subjective Indicators

Although sometimes the distinction may be blurry, indicators mainly tend to be either objective or subjective. In the objective approach the focus is on measuring 'hard' facts, such as income in dollars or living accommodation in square meters, while the subjective approach in contrast considers 'soft' matters such as satisfaction with income and perceived adequacy of dwelling; a major difference is that objective measurement is based on explicit criteria and performed by external observers, yet subjective measurement involves self-reports based on implicit criteria (Veenhoven, 2002). Social indicators, subjective well-being measures, and economic indices are needed in unison to understand human quality of life and to make informed policy decisions (Diener and Suh, 1997). Thus the methodological approach in this research is that subjective and objective indicators may very well complement each other, resulting in a broader picture.

3.3.1 Subjective well-being theory

Within the theoretical frameworks of this research, subject well-being theory does play a significant role. The subjective gender empowerment index devised for the purposes of this study is largely based on the abovementioned theoretical concepts. Subjective well-being consists of three interrelated components: life satisfaction, pleasant affect, and unpleasant affect, the latter referring to pleasant and unpleasant moods and emotions, whereas life satisfaction refers to a cognitive sense of satisfaction with life (Diener and Suh, 1997). A comprehensive empirical evaluation of the links between well-being and gender using a comprehensive global dataset (Graham and Chattopadhyay, 2012) finds a major role for norms and expectations in moderating the manner in which respondents answer well-being surveys, which in turn affect the dimensions of well-being that respondents emphasize; at the same time, women have appeared to be more optimistic about their future lives than men in the middle and high income countries, but

less optimistic than men in the low income ones. This in its turn brings up the question of limitations and potential disadvantages of subjective indicators.

3.3.2 Limitations of subjective indicators

Veenhoven (2002) presents the following comprehensive list of various potential disadvantages and limitations of subjective indicators, at the same time acknowledging their high significance and irreplaceability: many believe subjective appraisals to tend to be unstable and incomparable and are therefore to be of little use, thus claiming that social policy would be better for not using subjective indicators; the pragmatic objections include the claims that matters of the mind are unstable, incomparable and unintelligible, and that attitudinal phenomena vary over time and that this variation has little link with reality conditions. As there is no type of data, including demographic or economic measures, that is free from error, skepticism of self-report measures should not be taken to extremes, particularly as the self-report measures have shown considerable convergence with other types of subjective well-being measures, and the measures that predict hard social objective outcomes such as suicide and job turnover (Diener and Biswas-Diener 2001, p128). At the same time, methodologically the claim that subjective appraisals could not be compared across cultures is accepted in this study, due to the reasonable validity and reliability doubts.

3.4 Measuring Empowerment

Translation of feminist insights into the technicist discourse of policy is considered to be a process in which some of the original political edge of feminism has been sacrificed, with quantification being one aspect of this process of translation (Kabeer 2001, p18). While moving from a discussion of conceptualizing empowerment to measuring it, it is important to note that measures of empowerment must involve standards that lie outside localized gender systems, and that the key measurement issues addressed should encompass the multidimensional character of empowerment (Malhotra and Schuler 2001, p73-74). Diener and Biswas-Diener (2001, p133) distinguish two types of empowerment, first being the external or situational empowerment and the second – psychological empowerment, which is person's belief that action can be effective along with the energy and desire to carry out such action.

3.4.1 Objective Gender Empowerment Indices

An extensive measurement and quantification of women's empowerment on a nationwide scale has been undertaken by the United Nations and has been represented by a number of indices such as Gender-related Development Index, Gender Empowerment Measure and Gender Inequality Index; the latter is of primary interest for this research as it is unique in including

educational attainment, economic and political participation and female-specific health issues, thus being an important advance on existing global measures of gender equity, while at the same time still having important gender issues, such as domestic violence, female electoral turnout and many others not included due to data constraints (UNDP 2010).

3.5 Synergy

The Design and Methodology section of this paper draws on the synergy of the theoretical frameworks presented above. The adopted definition of Empowerment has provided the theoretical background for the composition of the Subjective Empowerment index. Human capital theory does provide a more general overview of the importance of the research in question. And, most importantly, Subjective Indicators and Measuring Empowerment are behind the whole methodology part. All theories presented above do not contradict each other, but rather compliment in a way that combined they form a theoretical framework for a single research.

4. Design and Methodology

In the following section there will be a description of different processes of the research design and methodology. Starting from defining the type of the research and the general methods that are going to be used, it will follow to how the data was collected and analyzed.

4.1 Research Methods

In this research primarily quantitative methods have been used. Qualitative methods have been limited to informal unstructured interviews with various individuals from all strata of the society throughout the research process. Quantitative methods included secondary data analysis, as well as performance and analysis of two small-sized surveys.

Quantitative research has been undertaken among else to maximize the reliability and validity of measurement (Bryman 2008, p436). At the same time, the main reasons for using quantitative methods are to minimize researcher's personal influence on the data collection, as well as the absence of existing research on Subjective Women's Empowerment in Armenia.

4.2 Variables

For the purposes of having quantitative methods in this research it was necessary to develop the quantified representation of the following variables:

- women's empowerment in academia (subjective)

- women's empowerment on a nationwide scale (objective)

A preliminary literature review has not shed any light on any possible widely used measure for assessing women's empowerment in academia, thus there had been an apparent need to develop a new operational subjective index. As presented in the theoretical framework, Gender Inequality Index is considered as a widely used objective indicator, although an obvious limitation is that it is calculated much rarely than on yearly basis.

4.3 Secondary Data

First of all, as a source of secondary data, official statistics have been used. It is important to understand the advantages and limitation of the secondary statistical analysis, as well as the reliability and validity. Bryman (2008, p297) points out three important advantages that this approach offers, which are: efficient cost and time, the high level of quality of the data and the opportunity for longitudinal analysis; all of them being of paramount importance. At the same time the three limitations that Bryman (2008, p300) brings ups, which are the lack of familiarity with data, complexity of data and absence of key variables, are not that relevant to the current research and databases used. The official statistics used for secondary research is the limited data of the Ministry of Education and Science of Armenia, particularly the sections on Female admissions and tuition waivers.

4.4 Preliminary Survey I

Before the main structured interview survey, the questionnaire should be obviously tested. Thus for these purposes a preliminary draft had been designed. Contrary to the preliminary idea of simple amelioration, the analysis of the Survey I results led to the development of a completely new survey with fundamentally different design. The reason is not finding any significant and conclusive data from the analysis.

The analysis of the first Survey has not yielded many statistically significant results, but has nevertheless provided a number of valuable insights. The questionnaire is presented in Appendix I. Most important of all had been the direct question on the existence of gender discrimination at Armenian universities, see Table 1. Out of the total 29 respondents 86.2% have declared that there is not, notably no male respondent has claimed that there is gender discrimination in Armenian academia. The major validity concern for this survey is as follows: The survey was primarily focused on the teaching and research staff, with 96.6% of the respondents holding

teaching position at the moment of the survey. Thus, despite the fact that the questionnaire has been anonymous, it would not be completely unreasonable to hypothetically suggest that university employees may be, to some extent, reluctant to the idea of criticizing their workplace environment on paper and handing in, even under reassurances of anonymity. At the same time, while this type of speculation is necessary for having a critical approach, there is no practical evidence that this might be the case.

		Gender			
		Female		Male	
		Count	Column N %	Count	Column N %
Existence of gender discrimination at Armenian universities	Yes	4	19.0%	0	0.0%
	No	17	81.0%	8	100.0%

Table 1 | Question on the existence of gender discrimination at Armenian universities
Source: Survey I

Another noteworthy finding, which has no direct relevance to the research question, yet is important in context of future research, is that although 79.3% respondents answered that the gender of their boss does not matter to them, it was only women who preferred to have a boss of opposite gender, see Table 2.

		Gender	
		Female	Male
		Count	Count
Gender preference of the boss	Male boss	2	2
	Female boss	2	0
	Does not matter	17	6

Table 2 | Gender preference of the boss
Source: Survey I

It is also worthwhile noting, that gender composition, which is often used as a part of the objective empowerment indicators, is not regarded as important or very important by the 72.5% of the respondents, see Table 3.

		Gender			
		Female		Male	
		Count	Column N %	Count	Column N %
Importance of equal gender composition in Academia	Very important	0	0.0%	0	0.0%
	Important	8	38.1%	0	0.0%
	Advisable	8	38.1%	7	87.5%
	Does not matter	5	23.8%	1	12.5%

Table 3   Importance of equal gender composition in Academia

Source: Survey I

4.5 Subjective Empowerment Index Design

As mentioned above, the fact that the analysis of Survey I results has been performed prior to Survey II data collection, has allowed designing and specifying the details of the latter to a much larger extent.

First of all, creating an index, by definition supposes comparison. Thus, primarily, it was needed to define what should be compared. As it has been discussed in the theoretical framework, the validity of subjective assessment measures across different cultures is highly questionable, nor is it needed for the purposes of the study. Thus, the questionnaire was given a chronological dimension, so that the index will represent empowerment through time series. Referring once again to the theoretical framework section, the particular composition of empowerment concept that has been used is: power, rights and resources, see Figure 2.

Having no specific reason to assign different weights to these components, the mean of the three is used to calculate the Subjective Empowerment index. In deciding whether to have a geometric or arithmetic mean, there was no risk of gross overestimation due to the absence of complex cumulative or compound effects (Martin 2007) or vast difference in composition, which could have potentially otherwise skewed the results; furthermore the difference would only make around 1.02 percent. Thus, for technical purposes, arithmetic mean has been used.
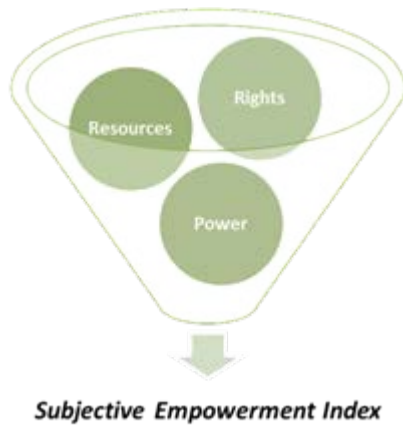
Figure 2 | Subjective Empowerment Index composition

For further elimination of anonymity concerns, web survey has been used inviting perspective respondents via Facebook and Email to visit a website at which the questionnaire can be found and completed online (Bryman 2008, p645), the survey questionnaire presented in Appendix II. Self-completion questionnaires with limitations in terms of answers have the advantage of eliminating the chance of misinterpretation of the reply (Bryman 2008, p195). An obvious limitation would be if the target group did not have access to internet, which fortunately is not the case, nevertheless it may be the reason of having a comparatively young age group of the respondents. This may hypothetically cause some minor validity concerns.

Having selected the years of experience in Armenian academia, the respondents also evaluate the trend of how Gender discrimination has changed, see Figure 3. In case if the respondents indicate no change, as more than half of the respondents did, the responses are spread over the whole period, otherwise yearly 2% modifications are applied.
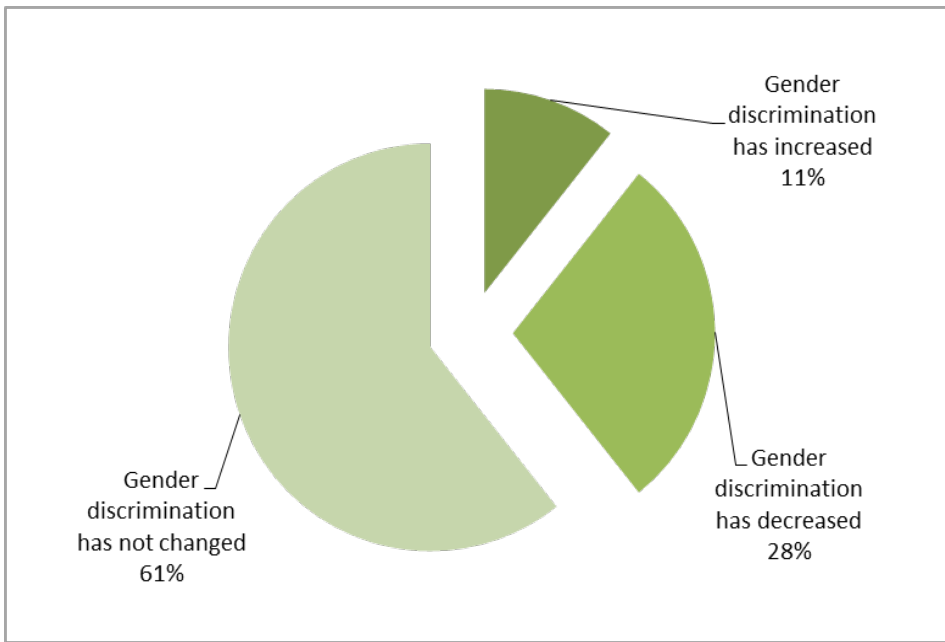
Figure 3 | Change in gender discrimination during respondent's experience

Source: Survey II

5. Analysis

Thus after the survey had been conducted, the process of data analysis is launched. Primarily the pool of data gathered from 41 individual responses has been reviewed. Having eliminated the missing responses and individuals not studied at higher/worked at higher educational institutions in Armenia, a total of 25 complete individual responses have been left.

Year	Index	Power	Rights	Resources
2003	4.01	3.58	4.36	4.08
2004	3.93	3.40	4.39	3.99
2005	4.00	3.33	4.44	4.22
2006	4.08	3.52	4.44	4.27
2007	4.15	3.58	4.51	4.36
2008	4.26	3.63	4.62	4.53
2009	4.32	3.69	4.63	4.63
2010	4.24	3.58	4.51	4.62
2011	4.33	3.69	4.63	4.68
2012	4.34	3.59	4.65	4.78
2013	4.26	3.44	4.56	4.78

Table 4 | Subjective Women's Empowerment index composition

Source: Survey II

Before even having analyzed the statistical parameters, a basic arithmetic mean has been calculated for the Subjective Women's Empowerment index composition, see Table 4. The ever so slight change in the definitions arises, due to the fact that prior to that, it was not limited to just Women's empowerment.

The next step has been to analyze the characteristics of the mean. Here one might notice the high values of the standard error of the mean, particularly for the years 2003, 2004 and 2005. This indeed may raise some concerns about the validity of the mean, which is used as the Subjective Empowerment Index in this study, see Table 5.

			Mean	Range	Standard Error of Mean	Standard Deviation	Total N
Year	2003	Index	4.01	1.67	.41	.82	4
	2004	Index	3.93	1.67	.33	.73	5
	2005	Index	4.00	1.67	.23	.69	9
	2006	Index	4.08	2.00	.15	.63	17
	2007	Index	4.15	2.00	.14	.63	19
	2008	Index	4.26	2.00	.12	.56	21
	2009	Index	4.32	2.00	.13	.54	18
	2010	Index	4.24	2.00	.13	.56	19
	2011	Index	4.33	1.48	.11	.48	18
	2012	Index	4.34	1.41	.12	.47	15
	2013	Index	4.26	1.33	.15	.46	9

Table 5 | Statistical data on the Subjective Women's Empowerment index
Source: Survey II

At the same time, it is usual for the surveys with a moderately small number of respondents to have higher standard error of the mean, and indeed starting from the year 2006 with 17 values, the standard error is starting to decrease. With this reasoning another concern arises questioning the reasons behind the fact that although at the years 2005 and 2013 the number of values is equally low (9 inputs), the standard error of mean for the year 2013 is comparatively much lower. This has a more sociopsychological rather than sociostatistical explanation. It is presumed that people are more likely to have a better recollection of their subjective perceptions of more recent years, thus resulting into lower standard error of mean under other similar condition.

Figure 5 | Subjective Women's Empowerment index time series

Source: Survey II

Correlations

		Date	Index
Date	Pearson Correlation	1	.894**
	Sig. (2-tailed)		.000
	N	11	11
Index	Pearson Correlation	.894**	1
	Sig. (2-tailed)	.000	
	N	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 | Bivariate serial correlation of Subjective Women's Empowerment index

Source: Survey II

After having examined for the standard error, Figure 6 and Table 7 show the serial correlation between the arithmetic means for each year. The Pearson Correlation between the Date and the Index is .894, which is quite high for social sciences, as well as is significant at 0.01 level (2-tailed). This means that there is a positive correlation between these two variables, and although no forecasting measures have been used in this study, one can hypothetically suggest that as time goes, the value of the index should rise.

Figure 6 | Subjective Women's Empowerment index composition time series
Source: Survey II

Correlations

		Date	Index	Power	Rights	Resources
Date	Pearson Correlation	1	.894**	.360	.833**	.973**
	Sig. (2-tailed)		.000	.276	.001	.000
	N	11	11	11	11	11
Index	Pearson Correlation	.894**	1	.705*	.950**	.959**
	Sig. (2-tailed)	.000		.015	.000	.000
	N	11	11	11	11	11
Power	Pearson Correlation	.360	.705*	1	.615*	.490
	Sig. (2-tailed)	.276	.015		.044	.126
	N	11	11	11	11	11
Rights	Pearson Correlation	.833**	.950**	.615*	1	.896**
	Sig. (2-tailed)	.001	.000	.044		.000
	N	11	11	11	11	11
Resources	Pearson Correlation	.973**	.959**	.490	.896**	1
	Sig. (2-tailed)	.000	.000	.126	.000	
	N	11	11	11	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 7 | Bivariate correlations of Subjective Women's Empowerment index composition
Source: Survey II

Figure 6 and Table 7 show the composition of the index with time series representation and bivariate correlation. Not only does the data shows that subjective perception of women having specifically 'power' at Armenian academia is low, it is also does not have any significant serial correlation. Furthermore, although there is a .615 correlation between Rights and Power at the

0.05 level, the Sig. is too high for claiming to have valid correlation. When it comes to Rights and Resources the correlation is high and significant at the 0.01 level.

Figure 7 shows that for the period from 2001 till 2007 for which there is data available, the percentage of females students admitted to state universities is around 50%. At the same time, female students make a much smaller percentage of the total when it comes to being awarded tuition waiver.
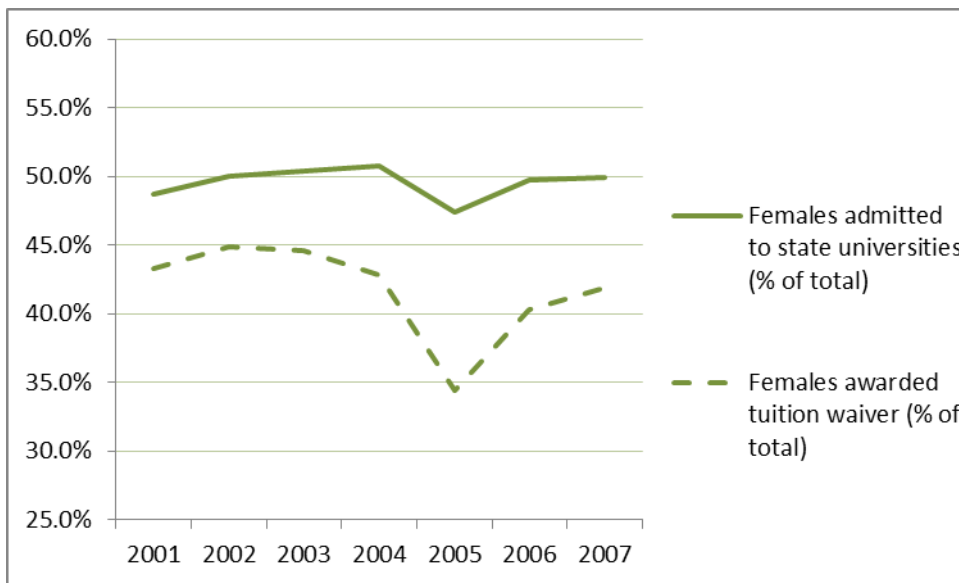

Figure 7 | Female student's admissions and tuition waivers

Source: RA Ministry of Education and Science, 2006 & 2008

When it comes to resources within academia, there is a vivid incompatibility of subjective and objective data. Analysis of subjective data would suggest much more equality that can be seen in Figure 7. Furthermore, there is no significant correlation between the these two pieces of data, see Table 8.

Correlations

		Tuition_Waiver	Index_Resources
Tuition_Waiver	Pearson Correlation	1	-.375
	Sig. (2-tailed)		.534
	N	5	5
Index_Resources	Pearson Correlation	-.375	1
	Sig. (2-tailed)	.534	
	N	5	5

Table 8 | Bivariate correlation of Subjective Resources evaluation and tuition waivers

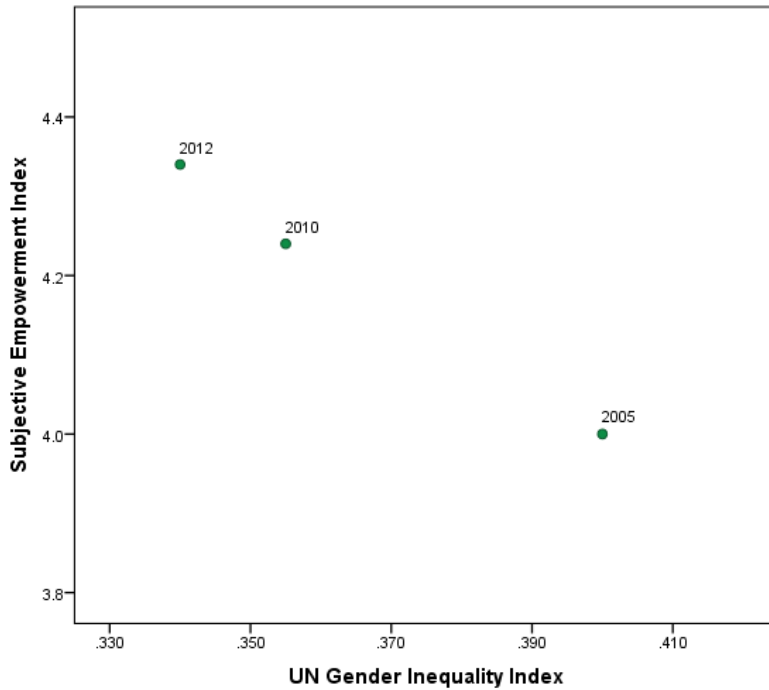Source: Survey II; RA Ministry of Education and Science, 2006 & 2008

Figure 8 | Subjective Women's Empowerment index and UN GII scatter plot

Source: Survey II; UNDP 2013 Human Development Report

Figure 8 is a scatter plot of the Subjective Empowerment Index and Gender Inequality Index. The latter has been calculated three times for the Republic of Armenia: in 2005, 2010 and 2012. Due to the fact that three inputs is quite a small number for calculating bivariate correlations, scatter plot has been chosen as the most appropriate way to present the data. As one may notice,

both indices follow the same basic trend, which is that with time Inequality decreases, while Empowerment increases. Gender Inequality Index itself, among the rest, is also composed of Female empowerment index which is the proxy of Female shares of parliamentary seats and Female population with at least secondary education (HDRO 2013). This once again demonstrates the obvious vast limitations of objective indices, due to the lack of conclusive evidence that gender composition leads to empowerment. At the same time, as the theoretical framework of this study suggests, a combined picture of subjective and objective indicators gives a much more thorough understanding, especially when these indicators correlate, which is not always the case, as it has been presented in this study too with the case of resources.

6. Conclusion

The study has met its purposes of analyzing gender equality and women's empowerment in Armenian academia over the past decade. The Subjective Women's Empowerment index developed according to the theoretical framework of the study and based on the data analysis from two surveys has provided valuable insights regarding the chronological changes. The study has also shown how much has been overlooked from pure usage of objective indicators for evaluating such complex concepts as empowerment.

At the same time, the practical limitations of the subjective indicators have also been exposed. Thus these findings on these conformities and discrepancies have created ground for further qualitative research for analyzing the causal roots of these phenomena. Although the development of the Subjective Empowerment index was influenced by the concept of analytic hierarchy process (AHP) developed by Thomas L. Saaty, the further research may incorporate AHP tools, such as pairwaise expert comparisons, to a higher extent, and adapt the expert evaluations' mechanisms for project prioritization (Karslian, Mirzoyan & Simonyants, 2012), for a much more vibrant calculation of index composition weights.

Furthermore, the practical and theoretical experience presented for the development of a subjective empowerment index can be developed, adapted and transposed to non-gender related topics.

7. References

Aslanyan, S., 2007. Women's Social Identity from an Armenian Perspective: Armenian Woman, Soviet Woman, Post-Soviet Woman. In: *Gendering Transformations* (Conference Proceedings).

Aslanyan, S., 2008. *A Gender Analysis of the European Union Developmental Aid for Armenia.* The Network of East-West Women, EU-CIS Gender Watch, Gdansk.

Assié-Lumumba, N., 2006. *Empowerment of Women in Higher Education in Africa: The Role and Mission of Research,* UNESCO Forum Occasional Paper Series Paper no. 11

Babayan, S., 2001. The reconstruction of society's gender culture through higher education in Armenia. *International Journal of Sociology and Social Policy*, Vol. 21 Iss: 1 pp. 57-67.

Borchorst, A. & B. Siim, 2008. Woman-friendly policies and state feminism: Theorizing Scandinavian gender equality. *Feminist theory*, Vol. 9, no. 2, p. 207-224.

Bryman, A., 2008. *Social research methods*. Oxford: Oxford University Press.

Demirchyan, A., V. Petrosyan & M. Thompson, 2012. Gender differences in predictors of self-rated health in Armenia: a population-based study of an economy in transition. *International Journal for Equity in Health*, 11.

Diener, E. & R. Biswas-Diener, 2001. Psychological Empowerment and Subjective Well-Being. In: D. Narayan, ed. *Measuring Empowerment: Cross-Disciplinary Perspectives,* The World Bank, Washnigton, DC.

Diener, E., & E. Suh, 1997. Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research*, 40, 189-216

Gevorgyan, S., 2012. Vocation or Profession?: Young people encouraged to choose according to market needs. ArmeniaNow.com [online] Available at: <http://armenianow.com/society/education/39392/vocational_education_vahagn_khachatryan_chamber_commerce>

Graham C. & S. Chattopadhya 2012. *Gender and Well-Being around the World*. Global Economy and Development at Brookings

Hartog, J. & H. Maassen van den Brinkce, 2007. *Human Capital: Advances in Theory and Evidence,* Cambridge University Press.

Hasratia, J., 2004. *Gender-based Analysis of Legislation.* United States Agency for International Development.

Kabeer, N., 2001. Reflections on the measurement of women's empowerment. In: *Discussing Women's Empowerment-Theory and Practice*. Sida Studies No. 3. Novum Grafiska AB, Stockholm

Karslian, E.V.; Mirzoyan, M. V.; Simonyantz, N. Y., 2012 – Prioritizing Hi-Tech Projects Using the Analytic Hierarchy Process, Information Technologies and Management, Iss.4, 267-277

Malhotra, A. & S. R. Schuler, 2001. Women's Empowerment as a Variable in International Development. In: D. Narayan, ed. *Measuring Empowerment: Cross-Disciplinary Perspectives,* The World Bank, Washnigton, DC.

Manassarian, I., 2009. Gender in/ equality in Egypt and Armenia. In: D. Budryte, L. M. Vaughn and N. T. Riegg, eds. *Feminist conversations: women, trauma and empowerment in posttransitional societies,* University Press of America, Lanham.

Martin, G. D., 2007. Determining Economic Damages, James Publishing Inc. §1205 pp12-4.1—12-4.4.

Mayoux, L., 2008. *Empowering Enquiry: A New Approach to Investigation* [online] Available at: <http://www.kepa.fi/tiedostot/empowering-enquiry.pdf>

Menjívar, C. & V. Agadjanian. 2007. "Men's Migration and Women's Lives: Views from Rural Armenia and Guatemala." Social Science Quarterly 88 (5): 1243-1262.

Page, N., & C. E. Czuba, 1999. Empowerment: What is it? *Journal of Extension*, 37(5), 24–32.

Petesch P., C. Smulovitz & M. Walton, 2005. Evaluating Empowerment: A Framework with Cases from Latin America. In D. Narayan, ed. *Measuring Empowerment: Cross-Disciplinary Perspectives,* The World Bank, Washnigton, DC.

RA Ministry of Education and Science, 2006. Higher Education statistics (in Armenian) [online], Available at: <http://edu.am/DownloadFile/2021arm-buh-havelvac.pdf>

RA Ministry of Education and Science, 2008. Higher Education statistics (in Armenian) [online], Available at: <http://edu.am/DownloadFile/2022arm-Bardzragujn2007-08.pdf>

Ruminska-Zimny, E. 2002, *Gender Aspects of Changes in the Labour Markets in Transition Economies (Issue Paper).* United Nations Economic Commission for Europe

United Nations Development Programme, 2010. *The Real Wealth of Nations: Pathways to Human Development*, Human Development Report. United Nations, New York, USA.

United Nations Development Programme, 2012. *Powerful synergies: Gender Equality, Economic Development and Environmental Sustainability*. United Nations, New York, USA.

Usher, A. & A. Cervenan, 2005. Global Higher Education Rankings: Affordability and Accessibility in Comparative Perspective, Global Higher Education Report 2005.

Veenhoven, R., 2002. Why Social Policy Needs Subjective Indicators. *Social Indicators Research*, vol 58, pp 33-45

Wilcox, G. M., 1929. Education in Soviet Armenia. Journal of Educational Sociology, Vol. 2, Iss. 5, pp. 310-318

World Bank, n.d., World Development Indicators Online (WDI) database.

World Values Survey, 1997. Four-wave Aggregate of the Values Studies.

Appendix I

The following is the translation of the questionnaire to English language:

Age group:

- o 18 – 30
- o 31 – 40
- o 41 – 50
- o 51 – 60
- o above 60

Gender:

- o Female
- o Male

Marital status:

- o Married
- o Single

Number of children:

- o no children
- o 1 child
- o 2 or more children

Higher education and Scientific degree:

- o Bachelor's degree
- o Master's degree
- o Postgraduate student
- o Candidate of Sciences
- o Doctor of Sciences
- o Other

Teaching position:

- o Assistant
- o Lecturer
- o Senior Lecturer
- o Associate Professor
- o Professor
- o Not teaching

To which of these groups does your academic discipline belong to?

- o Social sciences and Humanities
- o Natural sciences
- o Technical sciences

How often do you make independent decisions at work?

- o Always

- o Often
- o Sometimes
- o Rarely
- o Never

How comfortable is your working environment?
- o Very comfortable
- o Partly comfortable
- o Insufficiently comfortable
- o Not comfortable

Do you experience unequal treatment at workplace when compared with the opposite sex?
- o Yes
- o No

Is there significant gender discrimination at Armenian universities?
- o Yes
- o No

How important do you consider equal gender composition of students and faculty of the University?
- o Very important
- o Important
- o Advisable
- o Does not matter

Do you prefer a Male/Female boss?
- o Male
- o Female
- o Does not matter

Appendix II

The following is the translation of the questionnaire to English language:

Age group:

- o   18 – 30
- o   31 – 40
- o   41 – 50
- o   51 – 60
- o   above 60

Gender:

- o   Male
- o   Female

Have you studied/worked at a higher educational institution in Armenia?

- o   Yes
- o   No

Please indicate the years you have spent within Armenian academia (study, research and teaching)

Have you experienced gender discrimination during your studies/work at Armenian universities?

- o   Yes
- o   No

How would you rate the situation of women having equal rights at Armenian universities (1-vastly unequal; 5-very equal)?

How would you rate the opportunities of women having equal scholarship/salary at Armenian universities (1-vastly unequal; 5-very equal)?

How would you rate the situation of women having equal opportunities and sociopolitical power at Armenian universities (1-vastly unequal; 5-very equal)?

During your experience within Armenian higher educational institutions, would you say the gender equality has:

- o   Increased
- o   Decreased