# **Mendel University in Brno**

Faculty of Regional Development and International Studies

# **Current Situation of Women in the Workplace in Chile**

Diploma Thesis

Author: Bc. Helena Cábová

Supervisor: Katerina Kedron, PhD.

Brno 2016

# Declaration

I declare that I carried out this thesis: Food waste in the Czech Republic in comparison with the European Union,

independently, and only with the cited sources, literature and other professional sources.

I agree that my work will be published in accordance with Section 47b of Act No. 111/1998 Coll. on Higher Education as amended thereafter and in accordance with the Guidelines on Publishing University Student Theses.

I understand that my work relates to the rights and obligations under the Act No. 121/2000 Coll., the Copyright Act, as amended, in particular the fact that Mendel University in Brno has the right to conclude a license agreement on the use of this work as a school work pursuant to Section 60 paragraph 1 of the Copyright Act.

Before closing a license agreement on the use of my thesis with another person (subject) I undertake to request for a written statement of the university that the license agreement in question is not in conflict with the legitimate interests of the university, and undertake to pay any contribution, if eligible, to the costs associated with the creation of the thesis, up to their actual amount.

In Brno, 20. 5. 2016

.....

Helena Cábová

# Acknowledgement

I would like to express my gratitude and thanks to Katerina Kedron, PhD., who helped me with her valuable comments and advices during elaboration of my diploma thesis. Moreover, I would like to give thanks to the Mendel University for giving me the opportunity of traveling to the country of interest, Chile, which gave me valuable experience and personal view on the overall problematics.

This thesis was elaborated as part of the output of the investigative project "Transformations of gender as a sociocultural phenomenon", which was financed by the Internal Grant Agency of the Faculty of Regional Development and International Studies of Mendel University in Brno (project number: 5/2015).

This way, I would like to give thanks for the provided support.

# Abstract

Cábová, Helena: Current Situation of Women in the Workplace in Chile. Diploma thesis, Brno 2016

This diploma thesis examines the problem of the situation of women in the workplace in Chile. The thesis is divided into three parts, while each parts gradually analyses the problem of gender inequalities. Firstly, the thesis presents the overall information about the general problem of gender inequalities. It introduces the basic fragments of the issue together with the basic terminology. Secondly, a major focus is put on the Chilean regions, as it analyses gender differences of the regions in the labor market, with detailed analyses of the key occupations in each region. Thirdly, a composite indicator is introduced, composed of five selected variables, while each of the variables is further described in terms of Chile and also the Chilean regions. The final task of this thesis is to give ranking of the regions in terms of inequalities between men and women based on the results of the composite indicator and also to give certain level explanation of the results and of the situation of women in the Chilean workplace.

Key words: gender, inequalities, labor market, Chile, Chilean regions, composite indicator.

# Abstrakt

Cábová, Helena: *Stávající situace postavení žen na pracovišti v Chile*. Diplomová práce, Brno 2016

Tato diplomová práce zkoumá problematiku postavení žen na pracovišti v Chile. Práce je rozdělena do tří částí, přičemž každá z částí postupně zkoumá problém genderových nerovností. Práce nejdříve popisuje obecné informace týkající se problému genderových nerovností a provádí tak úvod do problematiky, společně s představením základní terminologie. Druhá část se věnuje regionům v Chile a analyzuje genderové rozdíly na trhu práce v jednotlivých regionech, společně s detailním popisem klíčových typů zaměstnání každého z regionu. Třetí část přináší kompozitní indikátor, který je sestaven dle pěti proměnných, přičemž každá z proměnných je popsána v kontextu Chile a chilských regionů. Cílem práce je představit seznam regionů, seřazených dle rozdílů na trhu práce mezi muži a ženami a také do jisté míry získanými výsledky vysvětlit postavení žen na pracovišti v Chile.

Klíčová slova: gender, nerovnost, trh práce, Chile, chilské regiony, kompozitní indikátor.

# Content

Intro	luction	11
Targe	ets of the Thesis	12
Meth	odology	14
1.	Gender inequality in the workplace	16
1.1.	Labor market	16
1.1.1	Labor force female participation	16
1.1.2	Employment rate	18
1.1.3	Unemployment rate	18
1.2.	Gender inequality	19
1.2.1	General problems of gender inequalities in the labor market	20
1.3.	Pay difference between men and women	22
1.3.1	Gender Pay Gap	22
1.3.2	The causes of pay difference between men and women	24
1.3.3	The outcomes of the pay difference between men and women	25
1.4.	Segregation of men and women	26
1.4.1	The causes of gender segregation	27
1.4.2	The outcomes of gender segregation	30
1.5.	Education and its effects on gender inequality in the market	31
1.6.	Age and its effects on gender inequality	32
1.7.	Theories explaining gender inequalities in the market	33
1.7.1	Human Capital Theory	33
1.7.2	Dual Market Theory	34
1.8.	Gender inequalities and Chile	35
2.	Analysis of Chile and the Chilean regions	38
2.1.	Description of Chile	38
2.2.	Description of the Chilean Regions	40
2.2.1	Región de Arica y Parinacota	42
2.2.1	1. Analysis of the occupations	42
2.2.2.	Región de Tarapacá	45

2.2.2.1. Analysis of the occupations	
2.2.3.Región de Antofagasta	
2.2.3.1. Analysis of the occupations	
2.2.4. Región de Atacama	50
2.2.4.1. Analysis of the occupations	51
2.2.5.Región de Coquimbo	53
2.2.5.1. Analysis of the occupations	53
2.2.6. Región de Valparaíso	55
2.2.6.1. Analysis of the occupations	56
2.2.7. Región Metropolitana de Santiago	58
2.2.7.1. Analysis of the occupations	59
2.2.8. Región del Libertador Gral. Bernardo O'Higgins	60
2.2.8.1. Analysis of the occupations	61
2.2.9. Región del Maule	
2.2.9.1. Analysis of the occupations	64
2.2.10.Región del Bío-Bío	65
2.2.10.1. Analysis of the occupations	66
2.2.11.Región de la Araucanía	68
2.2.11.1. Analysis of the occupations	68
2.2.12.Región de los Ríos	70
2.2.12.1. Analysis of the occupations	70
2.2.13.Región de los Lagos	72
2.2.13.1. Analysis of the occupations	73
2.2.14.Región de Aysén del Gral. Carlos Ibáñez del Campo	75
2.2.14.1. Analysis of the occupations	75
2.2.15.Región de Magallanes y Antártica Chilena	77
2.2.15.1. Analysis of the occupations	78
2.3. Summary of the results	79
3. The composite indicator	
3.1. Data analysis	
3.2. Construction of the Composite Indicator	
3.3. Variables	

3.3.1	Employment rate	
3.3.2	2. Unemployment rate	
3.3.3	3. Average salary	
3.3.4	Average salary by age	
3.3.5	5. Average salary by the level of education	
3.4.	Results of the Composite Indicator	
4.	Discussion of the possible solutions of the problem	
5.	Conclusion	
References		
List	of pictures	
List of tables		
List of charts		
Atta	chments:	

Attachment number 1: Región de Arica y Paricanota

Attachment number 2: Región de Tarapacá

Attachment number 3: Región de Antofagasta

Attachment number 4: Región de Atacama

Attachment number 5: Región de Coquimbo

Attachment number 6: Región de Valparaíso

Attachment number 7: Región Metropolitana

Attachment number 8: Región del Libertador Gral. Bernardo O'Higgins

Attachment number 9: Región del Maul

Attachment number 10: Región del Biobío

Attachment number 11: Región de La Araucanía

Attachment number 12: Región de los Ríos

Attachment number 13: Región de los Lagos

Attachment number 14: Región de Aysén del Gral. Carlos Ibáñez del Campo Attachment number 15: Región de Magallanes y Antártica Chilena Attachment number 16: Creation of the composite indicator; women

Attachment number 17: Creation of the composite indicator; men

# Introduction

In the historical context, women have always had it hard in promoting equality towards men. The 20<sup>th</sup> century was the breaking point in promotion of equal rights of women the legal way. Equality in sex is one of the key human rights, the sociological aspect of perceiving women however differs in the world, depending on the historical and political context of each country. And even in countries where women reached the same legal possibilities like men, there still exists certain level of inequality in the labor market, which occurs in all of the countries in the world, regardless of the economic development of the country. Moreover, promotion of gender equality became one of the Millennium Development Goals.

Chile belongs to the group of the most developed countries in Latin America. As a proof of this statement, Chile is the only Latin American country that achieved to become an OECD member, by 2010. And yet, concerning gender equality, it is the 73<sup>rd</sup> country in the world rank, according to the Gender Inequality Index. Those areas, which contribute the most to the final ranking, were mostly economic participation and opportunity of women, where Chile ended at a 123<sup>rd</sup> place and also wage equality for women, with the final rank of 131 in the world.

The situation of women in the Chilean workplace can be characterized by relatively low rates of employment and higher rates of unemployment, when compared to men. An average woman in Chile also earns around 30% less than men. There are various factors contributing to such situation and furthermore, the situation of women in the workplace differs among the Chilean regions. This work therefore tries to describe the situation of women in the Chilean workplace from the perspective of the different Chilean regions, trying to find possible patterns in the results.

### Targets of the Thesis

Chile is a specific country concerning geography, economy and this thesis tries to describe the specific situation of women in the workplace. One of the main goals of the thesis is to find region in Chile which is subject to the least differences between men and women in the workplace. That will be done thanks to the creation of a composite indicator, which gives ranking of the 15 Chilean regions. The thesis also tries to compare the situation of women in the workplace with the situation of men, in terms of types of occupations, employment rate, unemployment rate and average wages. Even though the title of the thesis states to describe the situation of women in the workplace in Chile, a simple description of women in the labor market would not be sufficient, as it needs to be put into the right perspective. The perspective shall be given by the comparison of the situation of women with the situation of men.

Firstly, the theoretical part is here to introduce the overall problematic of female participation in the labor market with description of the key issues, so that the final descriptions of the problem in Chile can be put in the right perspective. The theoretical part also gives explanation of the basic terminology, which is the baseline for further elaboration of the work and the results. These are terms such as labor market, gender inequalities in general, gender inequalities in the labor market, gender occupational segregation and the theoretical part also tries to explain why gender inequality in the workplace is a problem and why it should be dealt with. It also introduces the problem of gender inequality in Chile, together with current trends that are trying to solve the problem in Chile.

The second part of this diploma thesis will be focused on the description of the Chilean regions. Firstly, each region will be introduced through the basic characteristics such as area, population number and basic indicators of the labor market such as employment and unemployment rates and the share of both sexes in the labor market. Secondly, each region will be given a throughout description of the key occupations where women and men are employed. The second part of the thesis is here basically to give better understanding of the situation of both sexes in the labor market, in order to better explain the final results of the third part, which deals with the ranking of the regions.

The third part of this diploma thesis focuses on the construction of the composite indicator, trying to rank the regions from the least to the greatest differences in the labor market in Chile, based on five key variables, which were chosen to be employment and unemployment rate, average wage, average wage according to the modus age group, and average wage according to the modus education group. Each of these variables will be also described in detail in terms of Chile.

This thesis will try to answer these questions:

- What are gender inequalities in the workplace?
- What are the reasons why gender inequalities in the workplace occur?
- Why are the gender inequalities in the workplace a problem?
- What are the specifications of women in the labor market in Chile?
- How does the situation in the labor market differ for men and for women in Chile?
- What is the Chilean strategy towards eliminating gender differences in the labor market?
- Which region in Chile is subject to the least gender differences in the Chilean labor market and which to the greatest?

Each region in Chile can be characterized by different industries and different economic activities. This work therefore expects that the depth of gender inequalities in the market is into certain extent affected by the region's specific economic activities, as these economic activities might lead towards horizontal segregation in the market.

### Methodology

Each part of the diploma thesis uses different types of methodology, as the purpose of each part is different. The first, theoretical part uses mostly the method of literary research, together with the analysis of gathered information. The description of the overall problem is important for further understanding of the problematic in Chile. Information in the theoretical part put the findings in the second and the third part into the right perspective.

The second part of the thesis is the analytical part which deals with precise description of the situation of women in the labor market in Chile, giving description of each individual region in terms of basic indicators of the labor market, together with description of the key occupations for both men and women in each region. This part mostly analyses the data from the National Statistical Office of Chile, trying to describe the occupations frequency for both sexes. Furthermore, synthesis will give the overall data description in terms of Chile. Lastly, this second part of the diploma thesis uses the comparative method, when comparing the individual data for men and for women.

The third part of the diploma thesis focuses on the method of composite indicator, which is a statistical method that enables synthesis of various variables together to give ranking of the statistical units. The statistical units shall be the 15 Chilean regions and the variables were chosen to be employment and unemployment rates for men and women, average income, average income of the modus age group and average income of the modus level of education. Furthermore, for construction of the composite indicator, the method of Z-scores was chosen to be the most relevant. Comparison will also be given in terms of the third part, as it is important to compare the final results of each region.

The thesis provides a qualitative research of the topic of the situation of women in the workplace, based on the comparisons of the results of men and women. The final result shall be the rank of the 15 Chilean regions, with author's own comments of the results, based on the information gathered during the research. Majority of the data used for the elaboration of the second and the third part of the thesis were gathered from the National Statistical Office of Chile, which are data that show results for the year 2014.

# 1. Gender inequality in the workplace

# 1.1. Labor market

Right before any further explanation of the situation, it is important to give a throughout description of the labor market. Labor market is the place where the demand for work of the potential employees meets with the job supply or a job offer of the employer. Work force is there to be sold (Tuleja, Nezval, Majerová, 2011, 147)

Labor market can be characterized by key indicators that define the labor market in certain country or a territory. Among the key indicators that are important for this thesis belong labor force participation, employment rate and unemployment rate (ILO, 2003, p. 23). Each of these indicators is further defined below.

### 1.1.1. Labor force female participation

The labor force participation rate can be characterized as a measure of proportion of an economy's working age population that is economically active. It is being used to show the relative size of the labor supply available (ILO, 2003, 259). Furthermore, it is the proportion of the population aged 15 and older that is economically active. All people who supply labor for the production of goods and services during a specified period (World Bank, 2016).

The historical evolution of female participating in the labor market had an upward tendency. Especially in the past decades, many countries in the world have managed to offer legally bonding equity of opportunities for both men and women. The improvements were noticed all over the developing world in Africa, South America and South-East Asia, together with the developed world of North America or Europe. Between 1980 and 2009 the rate of female labor force participation increased globally from 50,2% to 51,8%. On the other hand, the male representation in the market dropped from 82 % to 77,7% (Revenga, Shetty, 2011, 199).

However: "Globally, fewer than half of women have jobs, compared with almost four-fifths of men. Girls and women still learn less, earn less and have far fewer assets and opportunities." Jim Yong Kim, president of the World Bank (Morton et al., 2014, 1).

In the picture number 1, you can see the data from 2010 of female labor market participation in the world. From the picture it is obvious, that the smallest female participation in the labor market is enticed with North Africa and the Middle East, followed by South American countries. Chile also belongs to the group with the lower female participation, as it falls below 50 %. On the other hand, there are also several African countries that can be put into the group of the larger female participation, together with Australia, China, Canada or Germany. More than 70% of female participate in the labor market in those countries mentioned (Revenga, Shetty, 2011, 200).



Picture number 1: Female labor market participation 2010

Source: Revenga, Shetty, 2011, 199

However, the reason for relatively low female participation in some countries can be explained by the country's cultural background, as in case of the Middle East and the North Africa, which are basically Muslim countries where the position of family earnings-provider is generally attributed to men (Moghadam, 2007, p. 170). Therefore, the reason behind the numbers is quite relevant and it is no wonder that basically only Muslim countries belong to the group with the lowest female labor market participation, as in case of Pakistan and Saudi Arabia with 22% participation, Yemen 21% and Iraq with only 15% participation (Revenga, Shetty, 2011, p. 200).

Concerning the country of interest Chile, female labor market participation of females aged 15+ is often low, around 49%, which is lower than in case of men, which is 75% (World Bank, 2016).

# 1.1.2. Employment rate

The employment rate is the percentage of the civilian noninstitutional population that is employed. It is equal to the number of employed persons divided by the civilian noninstitutional population (Arnold, 2008, 125).

Basically, definitions differ in the number of working hours a worker has to work to be counted as employed. Concerning the precise description of employment, there are various explanations that lead to different definitions. Generally, people can be called employed if they worked during the previous week, two weeks or up to one month (Bruyère, Barrington, 2012, 7-8).

The concrete definition of employment for this thesis is strictly limited by the description of the Chilean data. According to the Instituto Nacional de Estadísticas (Género y Empleo), a person can be called "employed" if he or she is at least 15 years old and in the last week worked at least for one hour and received some sort of pay (INE, 2015, 2)

# 1.1.3. Unemployment rate

Dealing with unemployment, we speak about perhaps one of the biggest problems of many countries in the world. For the purpose of this thesis, unemployment is defined as the opposite of employment and therefore all of those people aged 15 and older who were not able to find a job for at least a week and those who were able to work within the next two weeks (INE, 2015, 3).

The unemployment rate is the percentage of the civilian labor force that is unemployed. It is equal to the number of employed persons divided by the civilian labor force (Arnold, 2008, 125).

Generally speaking, it is important to distinguish between voluntary and involuntary unemployment. The unemployment rate is therefore to be characterized as the involuntary unemployed people as a percentage of the total work force (Gupta, 2004, 56)

We can differ between various types of unemployment such as frictional, cyclical and structural. The first frictional type is a short term unemployment caused only by the gap time between an employee finds an employer and employer finds an employee. It assumes that there are no other limitations other than the time needed for the employee getting to the job that already exists (Janoski, Luke, Oliver, 2014).

When speaking about the cyclical unemployment occurs due to existing business cycles that occur in the country's economy. This type of unemployment can be expected and is also classified as a short-term unemployment (Janoski, Luke, Oliver, 2014).

The last, and probably the most devastating one, is the structural unemployment. In this case, unfortunately we do not speak about the short-term problem, but a longlasting issue that will just not solve itself easily without certain level of intervention. According to Janoski et al., structural unemployment tells us that there is something unexpected and often hidden in the labor market, which causes this type of unemployment. At first, the unemployment may seem to be cyclical or caused by the business cycles, but as it does not disappear in quite a short period of time, it is then called structural (Janoski, Luke, Oliver, 2014).

# 1.2. Gender inequality

Gender inequality discusses inequalities in treatment and opportunities between genders. In case of this title, we are generally speaking about the inequalities between sexes, however, since most of the differences are attained towards socially and artificially created differences, we speak about the gender inequality. When describing gender inequality, we can distinguish between two basic types of desired equality and these are the equal opportunities for men and women and the equal treatment (Kabeer, Stark, Magnus, 2008, 222).

According to the gender gap report (WEF, 2016), which annually deals with global gender inequalities of 145 countries in the world, quantifies inequalities based on four indicators, which all contain several other sub-indicators:

- Economic participation and opportunity which counts with five sub indicators, which are labor force participation, wage equality for similar work, estimated earned income, legislators, senior officials and managers, professional and technical workers.
- Educational Attainment deals with literacy rate, enrolment in primary education, enrolment in secondary education and enrolment in tertiary education.
- Health and Survival indicator counts in the sex ratio at birth (female/male) and healthy life expectancy.
- Political Empowerment analyses further components which are women in parliament, women in ministerial positions and years with female head of state (in the last 50 years).

All of the indicators are highly interlinked when looking and the final picture quantifying inequality across the globe. For the sake of this work, economic participation and opportunity, interlinked with education, will be the most crucial indicators that shall be utilized in the thesis. Each country can score from 0 to 1 in each of the individual indicators, with the higher rank the better.

# 1.2.1. General problems of gender inequalities in the labor market

There are various reasons behind the gender inequalities in the market. First of all, it is the pay difference which is still one of the most important aspects of gender inequalities in the world. There are two types of unequal earnings. The first one is basically the result of the occupational segregation, while women often end up working at low-earning jobs, resulting in generally lower wages of women in comparison to men. The second type is the unequal pay for men and women for the relatively same work (Foubert, 2010, 7-9).

And occupational segregation is another key issue concerning gender inequalities in the market. Job segregation by sex generally means that men and women work in different types of jobs and unfortunately, these are usually the low-productivity jobs. And even though the economic development might help this problem a little, it is not enough to eliminate the segregation completely (Morton et al., 2014).

Furthermore, other issue, connected to general gender inequality, is the same opportunities concerning education for both men and women. However, this is probably one of the most unclear issues, since it remains a huge problem that while in the past years, there has been a relatively high increase in university educated women, in some cases the number of university educated women even exceeds the number of university educated men, women are still subject to larger wage differences in contrast with men (UNESCO, 2014). Furthermore, new studies show that the gender wage difference is often even larger in case of university graduates rather than in the case of lower sector education (Maione, 2003, 240).

There is also still present certain level of gender discrimination in the market. First of all, discrimination is any situation where certain person or a group of persons is being treated differently than others from various reasons (FRA, 2011, 21). This way we could say that the gender wage inequality, while for the same job certain group is being paid differently, can also be perceived as a type of wage discrimination (Foubert, 2010, 7).

The last group dealing with inequalities between men and women discusses the difference between the employment and unemployment levels in the market of men and women (Albanesi, Şahin, 2013, 2)

These are the basic groups of causes that contribute to the overall gender inequality in the marketplace. Furthermore this work will discuss each of these causes in more detail in the following chapters.

#### 1.3. Pay difference between men and women

Lots of studies dealing with segregation in the market treat the segregation equal to pay differences, however, differences in pay have many sources, while occupational segregation is only one of them (Anker, 1998, 7-8).

The problems of pay difference between men and women, together with the differences in productivity are systematic and still remain without much improvement. We could say that women in general gain lower average earnings than man in almost all sectors of the labor market. Furthermore, these results of inequality have been captured in both the developed and developing countries (Revenga, Shetty, 2011, 202).

Several studies dealing with inequalities in earnings, explain the problem with the market situation, occupation choice or employer's prejudices (Andersen, Taylor, 2006, 318; Anker, 1998, 34), however when we look at the productivity and earnings of self-employed entrepreneurs, women still tend to experience lower earnings. However, the value added per worker is still lower in firms managed by women by 34% in Europe and Central Asia and 35% in Latin America. Sub-Saharan Africa shows only 6-8% lower earnings per women (Revenga, Shetty, 2011, 201).

# 1.3.1. Gender Pay Gap

The gender pay gap is a statistical indicator that was created to give a precise number (percentage), showing the pay difference between men and women. It is often being used as an index, showing the wage difference of women and their status in comparison to men (NWLC, 2016).

There is not one proper way of counting the gender pay gap. The OECD uses the median full-time earnings. The precise definition states: "Estimates of earnings used in the calculations refer to gross earnings of full-time wage and salary workers. Low pay is defined as less than two-thirds of gross median earnings of all full-time workers" (OECD, 2016). The EU on the other hand uses the average gross hourly earnings within the economy as a whole. The Erostat Statistics defines gender pay gap as followed: "The gender pay gap in unadjusted form represents the difference between average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees" (Eurostat, 2016).

In general, we speak about the differences in earnings of men and of women. According to OECD (Society at a Glance), the gender pay gap is mostly related to three basic characteristics, which are gender differences in employment, relative wages and discrimination. (OECD, 2001, 68)

In the following chart number 1, you can see the gender pay gap in OECD countries for the full-time employees. The chart gives results of counting the gender pay gap in OECD countries, counted as the difference between male and female full-time median wages, divided by male median wage. The percentage then shows, of how much percent women get paid less than men in the given country. Countries are there put in order from the biggest to the lowest differences.





Source: OECD, 2014

When looking at the data from chart number 1, we can see that among the worst countries, concerning gender pay gap, there is Korea with percentage difference of over 30 %, together with Estonia, Japan falling between 30 and 20 %, Israel with slightly above 20% difference but also the Netherlands with 20% difference.

Among the least unequal countries concerning gender and wages, there is New Zealand, Belgium, Luxembourg or Greece, while all of these countries fall below the percentage difference of 10%. Chile, for instance, falls in the middle with over 20% gender pay gap and stands right next to the Czech Republic.

# 1.3.2. The causes of pay difference between men and women

The general problem of pay differences between men and women lies in many causes. It is very likely, that even after specification of the key ones, there would still remain several other perhaps unknown causes that may lie in the sociological or perhaps even psychological aspect of the problem. However, there are several key causes that are believed to have the highest impact on gender inequalities in income.

First of all, it is the direct discrimination itself, which basically means that women can get often paid less than men for the same type and amount of job (Eurostat, 2016).

Secondly, as already mentioned previously in the chapter General problems of gender inequalities in the labor market, it is the segregation, which characterizes the predominant tendency of men and women working in different jobs or even sectors. And once women and men make it to the same job sector or even the same companies, according to statistics, men tend to dominate those higher paid and valued positions in comparison to women. This phenomenon can be explained by vertical and horizontal segregation (Anker, 1998, 35).

Thirdly, in response to the vertical segregation, women often choose to work at lower valued and paid jobs, in contrast with men. Women are more often employed in sectors of administration, education, or in the health sector, where they represent up to 80% of the workforce. Women also tend to stick to positions such as shop assistants, assistants in general or other low skilled or under skilled jobs (Eurostat, 2016). This thesis will further analyze vertical integration in the regions of Chile.

The job choices often have to do with the job flexibility, for women to be able to combine work with homecare responsibilities (Redmount, 2015, 126). Which also Anker mentions, when describes women often chose jobs that are similar to those they generally do at home, such as cleaning and care work (Anker, 1998, 6-7).

Next, the problem is connected to the representation at managerial and senior positions (Eurostat, 2016). The leadership positions are more frequently represented by men than by women, when in the OECD countries and China, women represent only around 30% of legislation and managerial positions and senior officials. When we look at the overall representation of women in the labor market, on average women reach up to 45% across OECD and China (Adema et al., 2014, 12)

Lastly, the problem of pay inequalities is tied with the education, especially with the choice of the field of study. Men are much more prone to get a degree in Science, technology, engineering and mathematics, which are generally higher paid fields, while women are more often choosing fields such as health and humanities (OECD, 2013, 294).

# 1.3.3. The outcomes of the pay difference between men and women

As the general problem of unequal pay distribution already is a problem as it is, there are several other outcomes of the pay difference between men and women that harm both the economy and the social living in a given country that Mellanson mentions (Mellanson, 1996, 9).

- Pension gap between men and women, as the levels of pension wages is given by the levels of former income. However, as women usually have a longer life-expectancy, eventually their standard of living diminishes.
- Women are much more prone towards poverty than men, especially lone elderly women and lone mothers.

- As women being more prone towards poverty, it even makes them more prone towards needing some sort of social assistance. Increasing women's pay could positively affect the standard of living for employed women and their families.
- According to Mellanson, there exists a correlation between low income and poor health. This makes women the primary providers and consumers of health care.
- Lastly, gender pay gap results in the overall reduction of economic prosperity. Increased pay would conclude to higher tax revenues for the state.

Apart from these consequences, there are also many other outcomes of pay difference between men and women that are less easily measurable and these are effects on psychological well-being and quality of life.

# 1.4. Segregation of men and women

As mentioned previously in this thesis, occupational segregation gives us explanation of the still present phenomenon of men and women being ascribed with different types of jobs.

According to Bettio and Verashchagina, "employment segregation is a rather dramatic expression for the gendered division of labor in paid employment". The term was firstly introduced in 1960's when for the first time it was noticed that there existed a radical separation between men and women in the workplace (Bettio, Verashchagina, 2009, 30).

When describing the occupational segregation in the labor market, we can distinguish between two basic characteristics. Firstly, there is differentiation based on individual's choice or willingness to participate in certain field or job. This way, we can speak about either labor supply segregation or labor demand segregation (Rives, Yousefi, 1997, 20; Anker, 1998, 15-17).

- Labor supply: This category explains that women may very often choose a job in dependence on the flexible working hours, in order to have more time for child care and also due to the possibility of interrupting the job for some time, due to the possible maternity leave. It is more focused with the employee and his or her job possibilities.
- Labor demand: Is mostly focused on the employer, who may prefer hiring men or women for some particular position. This unfortunately affects the differences in career opportunities. The labor demand problem may be often caused by job stereotypes that can both positively and negatively discriminate certain sex.

Secondly, we can divide the labor market segregation based on sex according to the final concentration of certain sex into horizontal and vertical integration (Anker, 1998, 35).

- **Horizontal segregation:** Segregation based on the different representation of men and women at special market sectors. Therefore, horizontal segregation lies behind the creation of typical male or female occupations.
- Vertical integration: This type of labor segregation generates in concentration of women and men on different levels within one employment. It is connected with various levels of responsibilities and unequal promotion possibilities.

# 1.4.1. The causes of gender segregation

Firstly, it is important to keep in mind that gender segregation is without a doubt one of the many causes of pay inequalities between men and women. Secondly, gender segregation also has more than just one single cause.

According to Bettio and Verashchagina, there are six basic reasons why gender segregation occurs (Bettio, Verashchagina, 2009, 38), which are:

• Comparative advantage

- Under-investment
- Preferences and prejudices
- Socialization and stereotypes
- Barriers to entry and organizational practices
- Income and care roles

**Comparative advantage:** This is probably one of the oldest explanations of them all, since it refers to the biological differences in sexes. In 1974, Maccoby and Jacking elaborated a study on the functioning of the human brain and showed a difference in both sexes. They claimed that women were better at verbal competences, whilst men were much better at mathematical and visuospatial problems (Maccoby, Jacklin, 1974, 349-352). Other studies supported this idea and a recent one, elaborated in 2005 by Summers, even claimed that boys were more prone towards understanding mathematics than girls (Summers, 2005). However, in 2008 Guiso et al. discovered that the results of young girls in mathematics are negatively correlated with the gender gap and gender inequalities (Guiso et al., 2008, 1-2). According to the latest PISA testing, in norther countries of Europe such as Sweden or Norway, girls scored as good in the test as boys (OECD, 2015).

**Under-investment:** This cause or explanation of gender segregation deals with under-investment in education or trainings of women in general, which moves them to the lower-paid and poorly-skilled jobs (Mincer, 1974). However, this explanation does not correspond to the current fact that in most of the developed countries in the world, women gain as much education as men, sometimes they even outperform men in the first level of tertiary education, such as in most of the European countries (Eurostat, 2008, 34). Coate and Loury claimed that women do not invest into education as they believe the future employers will assign them to jobs that do not require investment (Coate, Loury, 2016, 1227). Nevertheless, when it comes to the choice of the field of study, it is often rationalized that women tend to choose mostly "soft" fields of studies, such as humanities, arts and teaching (Bettio, Verashchagina, 2009, 34). According to Eurostat (2008, 31), the pace of segregation in higher education has come to a relatively high decrease, with exception of mathematics and computer sciences.

**Preferences and prejudices:** Basically, this cause explains the desire of women for certain occupations, as well as of men. The preference for certain occupations is defined before entry into education or the labor market itself. Which basically assumes the logical idea that once people choose the field of study, they already had thought of the possible future employment. The report also assumes that women choose certain occupations even though they know they will not be paid for it as well as for other types of occupations (Bettio, Verashchagina, 2009, 39).

**Socialization and stereotypes:** According to Reskin and Bielby, (2005, 71), preferences are a social construct created by either the labor market, family or other social institutions. There are several stereotypes in the labor market that assign genders different abilities, such as women being better teachers, men better drivers or nurses being women. When looking for the cause of these segregations, history plays major role, as for centuries it has been identifying the roles of both sexes. Looking into history is very important when identifying the evolution of certain levels of segregation. In order to get rid of these stereotypes, there are basically two things that might help the desegregation and these are high quality education and mass media that can help people rebuild notions about gender stereotypes (Bettio, Verashchagina, 2009, 39).

**Barriers to entry and organizational practices:** In most of the developed countries today, barriers to entry in the specific occupations for women happened in a relatively close history. This results in the fact that some effects can be still visible in the present days. For instance, it was not until 1963 when women were allowed to enter the judiciary in Italy and in Switzerland, the first women judge was in 1947. And even today, with anti-discriminatory policies, there are situations in the market when certain positions are assigned with certain sex (Bettio, Verashchagina, 2009, 40). According to Rubery and Grimshaw (2007) and their research, job assessment, with formal and transparent practices the level of assigning specific job to a specific sex weakens, therefore, bureaucracy and transparency can have a positive effect on segregation based on sex. Therefore, for analyzing the level of segregation, it can be important take into account whether we analyze a small or a big company and private or public sector company.

Income and care roles: Because of the segregation, women often work in lower-value added and lower-paid jobs. Firstly, it is far more important for the employers where the job is located in the production structure, rather than the productivity or training of the worker. Secondly, the commitment to securing the income for the family also plays a major role. In this case, men are much more often perceived those who secure the family monetarily, therefore even employers can much easier assign men with greater value-added job (Elson, Pearson, 1981). Furthermore, occupational segregation can be also understood as a tendency of women choosing jobs with shorter and flexible hours. However, it is possible that women are only more likely to accept lower-paid job offers if this is the only way they can secure both of their roles, such as mother and worker (Bettio, Verashchagina, 2009, 40)

### 1.4.2. The outcomes of gender segregation

Anker (1998, 6-8) characterizes key reasons why occupational segregation should be treated and why it is a problem. First of all, occupational segregation by sex reinforces gender stereotypes and has a negative effect on women's status. It has impact on income inequality and poverty. The problem lies in women being more likely to attend a lower paying and lower status jobs, where they often carry out activities which are similar to those they do at home.

Next, segregation by sex contributes to the problem of women being excluded from certain types of jobs which leads to waste of human resources, since certain skilled individuals are excluded from the opportunity of working in the specific type of job. This kind of segregation also affects the income reduction, as it lowers opportunities and in a way prescribes the future possibilities of an individual. This has generally bad effect on labor market efficiency and functionality. In general, this type of segregation has also a negative effect on education, since it does not only tell how much of an education an individual should have, but mostly dictates the field of study someone should pursue.

Labor market rigidity can also be affected by the sex segregation, since it reduces the market's ability to respond to changes. Anker (1998, 7) also gives an important point which is connected to all of the other effects of sex segregation and therefore not only that the segregation eliminates women from certain jobs but it also excludes men from certain types of jobs as well.

Concerning the problem of developing countries, labor segregation has a negative effect on employment of women in general, since the formal sector is often quite small. Anker (1998, 8) mentions, this could be the possible reason behind increasing fertility rates in the developing countries, since wage employment of women, especially in the formal sector, helps reducing the fertility rates. Lastly, labor segregation based on sex is one of the key determinants of gender pay differences in the market.

#### 1.5. Education and its effects on gender inequality in the market

As mentioned previously at the causes of pay differences between men and women and gender segregation, education is one of the basic causes of the general problem.

The issue of the same opportunities for men and women in the labor market is closely enticed with the same opportunities at schooling. The general assumption was that promotion of equal opportunities in education leads toward decreasing of gender inequalities in the labor market (Pettit, Hook, 2009, 143-144). This thesis will also analyze how education affects gender differences in Chile.

However, it still remains that the outcome of the educative system helps further integration into culture and society and the participation on the society's development. Formal education is there to offer good quality education and training in certain professions, as it is often the primary step towards being accepted at certain occupation. Furthermore, very often gaining higher education is closely linked with level of prestige, which rises together with rising education level (Blossfeld et al., 2015, 152)

Education nowadays can be up to greater extent mostly understood as the issue of equality. Education can be closely linked with economy and political order. Education also ascribes young people certain status according to the years spent in the schooling system. However, an important role in this system plays ethnicity, social status or sex (Mirowsky, Ross, 2003, 3)

In the recent years, there have been several changes in the educational structure all over the globe. Higher female participation in the education helped the further integration of females in the labor market (Fiske, 2012, 58)

When focusing on the data, OECD claims that in the past 50 years, nearly half of the economic growth can be addressed to education. The development was positively related to the fact that there were more girls in education in general and more girls gaining higher level of education, which helped improving gender equality (Adema et al., 2014, 5). Also the recent outburst of the services working sector, together with improved system of the parental leave, childcare system and better possibilities in flexibility of workplace, all of those helped female labor market participation and female employment and in general, helped decreasing gender gaps in labor market (Van Dongen, 2009, 222)

### 1.6. Age and its effects on gender inequality

Age as a factor influencing gender wage gap is often excluded from the economic analyses of the problem however, there might be two basic reasons why age can also be an influential factor. The third part of this thesis, which deals with the construction of the composite indicator, also includes age as one of the variables, as it might have an effect on the final ranking of the Chilean regions.

Firstly, women participate in the labor market in a different way than men, mostly due to the inactive part of child bearing and secondly, employers might also take gender differences into considerations when hiring a new employee, as men might be less prone towards absences, than the young female workers (Tyrowicz et al., 2015, p. 1).

The general assumption of current trend is that gender wage gap increases with age. In all of the OECD countries, younger women tent to get closer to the male's average earnings. As according to the OECD data from 2010, the gender wage gap for

the age group of 25-29 year-olds was around 9%, while for the 55-59 year-olds the wage gap rose up to 24% on average. There is also an obvious impact of motherhood on the gender wage gap (OECD, 2012, 166).

The reasons behind inequalities being larger with age can be attributed to several aspects of current trends. Firstly, women nowadays are much better educated than they were in the past. Also the time of giving birth delays in many countries and furthermore, there are more child facilities and the division of housework has become more equal between men and women (Tyrowict, et al., 2015, 22).

Furthermore, not only women are subject to great wage differences in contrast with men, which differ over age, women also tent to stop being promoted in much earlier age. The wage increase of women often stops in the age of 35-40, while men get paid more until the age of 50-55. This can also be attributed to the childcare and motherhood (Poppick, 2015).

# 1.7. Theories explaining gender inequalities in the market

Apart from precise data and analysis, there are also theories that deal with the problem of gender inequalities. These theories add to the overall issue with possible explanations.

In general, theories can be divided into supply theories, dealing with possible discrimination a woman faces when entering the labor market from the side of the employer and into demand theories, which are focused on the women's choice of work. This division is further explained in the chapter number 1.4., dealing with segregation in the labor market. Furthermore, the two key theories for this thesis would be the human capital theory and the theory of dual markets.

# 1.7.1. Human Capital Theory

The human capital theory remained one of the major theories explaining gender inequalities. It mostly stresses out the importance of a family and the effects of the formation of a family on the gender wage gap. This theory suggests that the future possibility of having children and having to take care of the family is one of the key determinants of female career decision. Furthermore, the theory deals with the difference between female workers with and without a family and concluded that women without children might participate a continuous job experience, however the participation of females with families varies over the life cycle depending on the family needs (Mincer, Polachek, 1974, 402).

Becker further examines the human capital theory and adds that childcare and housework take major part of a woman's time that otherwise could be invested into self-education and further improvements of the position in the labor market, which is the opposite towards men (Becker, 1985, 33). Furthermore, marriage is also important in terms of the human capital theory, as marriage gives the opportunity of division of roles inside a household (Iversen, Rosenbluth, 2006, 2).

One of the other key assumptions of the human capital theory discusses the importance of self-investment and the career path. Among the most important types of investments, there are education, on-the-job training and work effort, which in certain variations may lead towards differences in earnings (Brückner, 2004, 12). According to the theory, women are much more likely to choose a job which does not require much training and offers relatively higher starting point salary, as they might anticipate the need of dropping out of work due to motherhood. Therefore, women often choose jobs that require less of the human capital. On the contrary, men might choose a job that in the beginning offers relatively lower wage, however, with an on-the-job training, certain promotion is anticipated (Mincer, Polachek, 1974, 401-402; Becker, 1985, 36).

# 1.7.2. Dual Market Theory

According to the dual market theory, we can divide labor market into two groups, the primary sector and the secondary sector. The theory was developed in the USA during the late 1960s and early 1970s, focusing mainly onto poverty and unemployment at poorer American areas. Furthermore, the theory focuses on disadvantaged groups in the society. These disadvantage groups do not contain only minorities, concerning the problem of migration, but also women. The two markets were divided by specific features, rather than by the job occupation (Reich, et al., 1973, 359).

**Primary sector market**: A market with good working positions, relatively high wages, good perspective concerning future career, stable employment. It can also include forming of trade unions. The primary sector market requires high skills in the field.

**Secondary sector market:** Does not require specific skills, or a specific training. The secondary market offers relatively low wages and relatively bad working positions, in comparison with the primary market. Jobs in this sector often lack formal procedures and trade unions and can be often unattractive. The secondary sector market also offers low securities.

An important fact remains that while individuals can be drawn from the primary sector market into the secondary one, it only rarely works also the other way around. This is often caused by lack of available working positions in the primary sector market but also due to existence of institutionalizing barriers (Anker, 1998, 21).

# 1.8. Gender inequalities and Chile

To start off with the description of the Chile's attitude towards the problem of gender inequalities in the labor market, first significant remark is the fact that the president of Chile is a woman. Verónica Michelle Bachelet Jeria, or simply Michelle Bachelet was the president since the year 2006 until 2010 and is currently serving the second election period since the year 2014. The promotion of equal rights for women was one of her 2004 campaign topic. She can also be attributed to improving the early education system in Chile and poverty reduction. In 2010, Michelle Bachelet became the head of the newly formed United Nations Entity for Gender Equality and the Empowerment of Women (Gobierno de Chile, 2016).

The labor participation of women in the Chilean labor market is generally lower than the total participation of men. The situation can be explained by so called sexual division of labor, which is attributed to the fact that the responsibilities of home care and family in Chile are socially assigned to women, which limits them with respect to the time they have available for self-education and self-investment for further work development. The combination of home care and work is crucial for women, causing them difficulties in the labor market (López, 2015, 12).

Since the early 90's, the female participation in the labor market has experienced a progressive increase in all of the Latin America, which had a positive impact on the decrease of gender gaps in this area. The rising trend of female participation in the labor market was further accompanied by an increasing trend in female enrolment in schooling, which impacts the employment opportunities. And even though the female participation in the labor market has been increasing also in Chile, there are still major gender gaps that persist in the labor market, such as the gender wage gap (Lopéz, 2015, 20).

In 1980, CEDEM (Centro de Estudios para el Desarrollo de la Mujer) was established to generally contribute to the social and cultural change within Chile, promoting democracy, human rights, social justice and equality. It comprises of several levels of experts, pushing implementation of projects of broader topics, such as democratization, rural topics, encouraging of women to participate in the public debate and gender equality. The project also helped in a certain way of networking, which helped to connect women's organizations in Chile and Latin America, which further lead towards better implementation of women in the labor market (UN, 2016).

Gender inequality has been one of the key problems and topics to solve in Chile. A huge step forward towards promotion of gender equality was the formation of the Women and Gender Equality Ministry, which was officially announced in 2015 and should come into practice by the year 2016. Each region of Chile will have its office and the Ministry should also make sure that gender matters are included in all government programs (Gobierno de Chile, 2015).

Despite the current efforts to decrease gender inequalities in Chile, according to the World Economic Forum and its Gender Gap Index, Chile has scored 0,698, which makes Chile the 73<sup>rd</sup> country in the ranking in terms of gender equality. Despite the

good results in educational attainment, which scored 1, with the rank of 36 and health and survival, which scored 0,979, with ranking of 41, Chile scored poorly in terms of economic participation and opportunity, with the score of 0,570 and ranked 123<sup>rd</sup> in the world, and 131<sup>st</sup> in wage equality for similar work. Chile also scored poorly in terms of political empowerment, with 0,243, however, ended up being 42<sup>nd</sup> in the total ranking (WEF, 2016).

From the data shown in the index, it is more than obvious that one of the key issues of gender inequality in Chile, there is thee economic participation and opportunity and political empowerment. Economic participation and opportunity and its sub indicators are also the key terms used in this thesis, as this thesis tries to analyze the situation of women in the workplace.
## 2. Analysis of Chile and the Chilean regions

After giving a throughout description of the problem of gender inequalities in the market from the general point of view, now is the time for a more detailed description of the problem in the country of choice, Chile. This country will be introduced from various perspectives, but mostly, this part will try to describe the problem of gender inequality in the market with focus on Chile and the Chilean regions.

After giving detailed analysis of the Chilean labor market, this part will be followed with a detailed description of the Chilean regions, while each individual region will be analyzed from the point of size, size in population and the key labor market indicators for this thesis.

## 2.1. Description of Chile

Chile is a South American country, which shares borders with Peru in the north, Argentina and the Andes in the east and the Pacific Ocean in the west. The capital is the city of Santiago, located in the Metropolitan region.

The country spreads on the area of 756,102 square kilometers, which makes it the 38<sup>th</sup> largest country in the world. The population of Chile counts for 17,508,260 people, living in 15 regions (CIA, 2016). The following table shows all the 15 Chilean regions, ordered by size in population.

Table number 1: List of Regions in Chile by Population, 2014

List of Regions	Number of people
Región Metropolitana	7 118 429
Región del Biobío	2 134 834
Región de Valparaíso	1 838 563
Región del Maule	1 057 922
Región de La Araucanía	1 028 866
Región del Libertador Gral. Bernardo O'Higgins	934 459
Región de Los Lagos	892 086
Región de Coquimbo	773 941
Región de Antofagasta	610 501

Región de Los Ríos	392 464
Región de Tarapacá	345 789
Región de Atacama	292 608
Región de Arica y Parinacota	176 349
Región de Magallanes y Antártica Chilena	161 748
Región de Aysén del Gral. Carlos Ibáñez del Campo	110 612

Source: Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

As we can see in the table of regions with the number of people, the Metropolitan region is the biggest one, as there are over 7 billion people living there. This can be simply explained by the fact, that the capital of Chile, Santiago is located in this region. Over 5,125 million people live in the city of Santiago alone (Google DATA, 2016).

When looking at other regions, among the least inhabited regions there is Región de Arica y Parinacota, which is located in the north of the country and can be classified as the newest region, as together with Tarapacá, it used to be a Peruvian region until 2007, and Arica y Parinacota is also the region with the highest number of indigenous inhabitants. The terrain is mostly formed by a desert, which can explain its relatively low population (Alvarado, Moya, 2008, 334).

Two other low-inhabited regions are Magallanes y Antártica Chilena, together with Región de Aysén del Gral. Carlos Ibáñez del Campo. Both of these regions are located in the south of the country, which are mostly mountainous and glacier areas.

The labor market of Chile can be characterized by an employment rate of 67,3% at males and 45,1% at females and an unemployment rate of 6% at males and 6,9% at females. In total, the labor market employs 56% of males and 44% of females. The average salary in Chile in 2014 was 473 251 CLP, while the number differs when distinguishing between sexes. Men earn on average 543 996 CLP and women 382 253 CLP (INE, 2015).

In the past 20 years, Chile has gone through major process towards democracy, modernization, prosperity and lower poverty. The income per capita has nearly doubled

in the past 20 years, which puts Chile to the top of the Latin American countries (OECD, 2014, 12).

In the year 2014, the Chilean GDP was at 258,1 billion USD, which made it the 42<sup>nd</sup> country in the ranking in the world .The GDP growth for 2014 was at 1,9%. In terms of poverty, the national poverty headcount ratio was at 14,4% in 2013, while it has been constantly decreasing from 22,2% in 2011, 25,3% in 2009 and 29,1% in 2006. The life expectancy at birth is 81 years of age, which stands at the OECD average of 81 years (World Bank, 2016).

The one key industry that helped to open the Chilean economy was the resourcebased industry, which together with series of reforms, thrived from the increasing export rates. Chilean economy became heavily dependent on natural resources and mining remains one of the key economic activities in many Chilean regions. However, despite the immense economic growth in the past years, Chile still has a long way to go towards growth opportunities in the different territories. (OECD, 2014, 12)

Even though the poverty levels have been on decrease, there still remain a huge problem concerning inequalities between regions, territories and furthermore, gender.

### 2.2. Description of the Chilean Regions

For further description of the entire problem of gender pay difference between men and women in the regions of Chile, and for understanding of the results given by the composite indicator, it is important to give description of each region separately. For the overall understanding of the country, each region will be therefore described separately by several given attributes.

The description follows the same pattern in each region, when first introducing the region in terms of its location, area, relief, climate, population, employment rate, unemployment rate and the percentage share of men and women in the labor market. After this introduction part, each region is given a chart showing percentage share of men and women in the different types of employment, while each chart is given basic description. The list of the types of employments mentioned is listed below in the table number 2.

Table number 2: List of occupations

Agriculture, hunting and forestry
Fishing
Mining and quarrying
Manufacturing industry
Electricity, gas and water
Construction
Commerce
Hotels and restaurants
Transport, storage and communications
Financial intermediation
Real estate, renting and business activities
Public administration
Teaching
Social and Health Services
Other community, social and personal services
Private households with domestic service
Extraterritorial organizations and bodies

Source: Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

Each of these groups has a major role in the Chilean labor market and at the same time, these groups can have a great impact on the overall results of wage distribution between men and women, as there might be huge differences between sexes in terms of these occupations. The results might also show a closer link with the occupational segregation, which seems to be one of the key factors influencing the gender pay gap.

Since the data on employment, unemployment and wage differences in different categories are from the year 2014, all of the other data concerning population in the different regions are also taken from the year 2014. The following description of the regions is ordered from the north of the country to the south. For the description of the regions, both names are being used, as the original Chilean one and the one equivalent in English. For each region's description, a different table of the attachment has been used.

#### 2.2.1. Región de Arica y Parinacota

Region de Arica y Paricanota is the 15<sup>th</sup> administrative Chilean region, with northern borders with Peru, eastern borders with Bolivia and southern borders with the Tarapacá region. The capital of the region is Arica, which lies on the coastline of the Pacific Ocean (Alvarado, Moya, 2008, 333).

It spreads on 16 873,3 km<sup>2</sup>, which represents 2,23% of the Chilean territory, standing on the 12<sup>th</sup> place concerning size of the regions. Furthermore, the region combines all of the four basic forms that structure the Chilean relief, which are the coastal headlands, coastal Cordilleras, intermediate depression and the Andes. This region predominates with the desert climate with certain variations at the coastline and in the mountains (Alvarado, Moya, 2008, 333).

According to the National Statistical Office, Chile, which offers the latest data for 2014, the population of the Arica y Parinacota region was 176 349 people and 52 598 households. The employment rate reaches 64,6% for men and 43,4% for women and the region deals with a 6,7% unemployment rate at males and 5,4% unemployment rate at females. The labor market employs 45% of women, in comparison to 55% of men (INE, 2015).

This region is an important traffic point of trade with bordering countries of Peru, Bolivia and enclosed Brazil. Tourism is also important for this region, as it offers one of the best beaches in Chile (Lara, 2009, 48).

### 2.2.1.1. Analysis of the occupations

When analyzing the employment among various occupations, there are key differences between men and women. The following charts show the occupation prevalence of women and men. For the chart, six major occupations are listed, out of the total number of 17. To total list of employments with numbers are in the attachment number 1.

From the chart number 2, you can see that 27% of women in the Arica y Parinacota region work in the commerce, which makes it the most common type of employment in this region. The average salary for women in this type of employment reaches 206,7 CLP. In comparison to the average earnings in all the country, which is 382 253 CLP, that shows that women in this sector fall way below the average. Furthermore, if once we compare the average salary for both sexes, which is 473 251 CLP, that shows females in the commerce branch earn less than twice as little as is the overall average.

Chart number 2: Female occupations frequency in the Arica y Parinacota Region



Source: Own elaboration based on Instituto Nacional de Estadísticas, Chile, 2015

Teaching is also a very common type of employment among women, while their average salary is far higher than the one in commerce sector, with 448 623 CLP. However, it is still below the overall country's average. Hotels and restaurants represent the fourth position, which can be explained by the fact that the region is an important touristic destination.

On the other hand, the highest frequency for male occupation can be seen in the sector of transport, storage and communications. This sector reaches an average salary of 378 698 CLP, which also falls below the country's overall average and way below

the men wage salary, which is 543 996 CLP, however, the mostly frequented occupation for men earns still way more than the one for females. As this region is an important transition point for transport to the neighboring countries of Peru, Bolivia and enclosed Brazil, it is obvious why transport, storage and communications places the first position of the most frequent occupations for males in this region.

Commerce also falls among the most frequent occupations for men. However, despite the same group of jobs, men get paid higher salary with an average of 328 801 CLP, than women.

Chart number 3: Male occupations frequency in the Arica y Parinacota Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

When looking at the charts, it is obvious that women often choose employment which does not require high physical activity, au contraire to men, who frequently occupy employments such as manufacturing, agriculture or mining. However, even when women enter such group of employment, men still gain higher wages in all the sectors.

The results of the occupations frequency correspond to the regions characteristics, as transport, storage and communications play major role, concerning

males' occupations. For women, the hotels and restaurants type of employment moved to the fourth position, which is also in relevance to the tourism in the region.

### 2.2.2. Región de Tarapacá

The Tarapacá region is the 1<sup>st</sup> administrative region of Chile. It shares borders to the north with the Arica y Parinacota region, with Bolivia to the east and with the Región de Antofagasta to the south. Western borders are shored by the Pacific Ocean. The capital of the region is Iquique, which is a maritime harbor. The region has an area of 42 225,8 km<sup>2</sup>, which represents 5,58% of the Chilean territory. Speaking of size, the region is the 6<sup>th</sup> largest region in Chile. The region has an area of 42 225,8 km<sup>2</sup>, which represents 5,58% of the Chilean territory. Speaking of size, the region is the 6<sup>th</sup> largest region in Chile. The region has an area of 42 225,8 km<sup>2</sup>, which represents 5,58% of the Chilean territory. Speaking of size, the region in Chile. Speaking of the relief, there are five basic forms, that shape the structure of the region and those are coastal plains, coastal headlands, coastal Cordilleras, intermediate depression and the Andes. The desert climate also dominates this region, with certain variations at the coastline (Alvarado, Moya, 2008, 25).

The population of the Tarapacá region was in 2014 counted to be 345 789 people and 92 846 households. When looking at the labor market, the general employment rate of the Tarapacá region for men is 71,10% and 46,1% for women, and the unemployment rate for men is 5,80% and 6,3% for women (INE, 2015), which means that from the employment perspective, the Tarapacá region is doing slightly better than the previous Región de Arica y Parinacota in case of men, however, despite better employment rate, women suffer from higher unemployment rate.

And lastly, female representation of the labor market reaches 45%, while there are 55% of men (INE, 2015). Therefore, the situation is quite similar in comparison to the previous region.

As in case of the Región de Arica y Parinacota, the Tarapacá region also remains an important part in transportation to the neighboring countries, together with tourism. However, among the key economic activities of this region, there is mining (Lara, 2009, 48).

### 2.2.2.1. Analysis of the occupations

In the chart number 4, you can see the 6 most frequent occupations of women in the Tarapacá region. In the first place, there is commerce, with a 28% share in the labor market. An average salary for females in this sector reaches 275 049 CLP. Again, the average salary falls way below the overall female average salary in Chile, which is 382 253 CLP. Further data can be found in the attachment number 2.



Chart number 4: Female occupations frequency in the Tarapacá Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

The second most frequent occupation for female in this region is teaching, as up to 18% of women are employed in this sector. Here the average salary gets higher, reaching 479 826 CLP per woman. This time, the average salary not only outruns the female average salary of 382 253 CLP, but even the overall average salary for both men and women, which is 473 251 CLP. However, the average salary of females in this sector still does not reach the average salary of males, which stands at 543 996 CLP. Other most frequent occupations are social and health services, with an average salary of 577 878 CLP, private households with domestic service with an average salary of 169 854 CLP and public administration with 620 880 CLP on average. While some of these occupations reach relatively high numbers of average wages, unfortunately in all

of the occupations mentioned, males still get higher wages. The chart number 5 shows the six most frequent males' occupations.



Chart number 5: Male occupations frequency in the Tarapacá Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

The data show that with a 16% representation, mining is the key group of occupation for the Tarapacá region. The average salary of men in this sector is 772 085 CLP. That is up to 2,7 times higher average wage than women receive for their most frequent occupation. When looking at data for females working in the mining sector, their average salary is 612 518 CLP, which is higher, however, as there are only slightly over 650 females working in this sector, mining represents less than 1% share of occupations for women.

Commerce, together with transport, storage and communications represents 12% share out of the males' occupation. This time, the average salary for males in the commerce sector stands for 473 309 CLP and for transport, storage and communication 618 772 CLP. From those numbers it is obvious that there are more men employed in the higher paid occupations, however, once a woman starts working in the same type of occupation, on average, she still gets lower wage.

Again, as in case of the Arica y Parinacota region, we can see a similar pattern of male employments in contrast to female's employments, as men tend to work in more physically hard environment. The list of occupation frequency is adequate in terms of the key economic activities of the region, which are mining, transport and tourism, as hotels and restaurants represent the third most common type of employment for women.

### 2.2.3. Región de Antofagasta

It is the second administrative region. The capital of the region is Antofagasta, which is a maritime harbor. It shares borders with the Tarapacá region in the north, Bolivia in the north-east, Argentina in the south-east and the Región de Atacama in the south. It spreads on 126 049,1 km<sup>2</sup>, which presents 16,67% of the total Chilean territory and is the 2<sup>nd</sup> Chilean largest region. The relief is similar to the one in the previous two regions mentioned, therefore there are coastal plain, coastal range, intermediate depression and the Andes mountains. The climate is very dry, with slight deviations to the coast. In general terms, this region is specific for the copper mining industry (Alvarado, Moya, 2008, 39).

The population of the Antofagasta region was in 2014 counted to be 610 501 people, with 265 655 households. The employment rate for men is 70,40% and only 41,1% for women. Unemployment rates for men are at 6% and for women 6,2%. In general, the labor market employs 59% of males, in contrast to the 41% of females (INE, 2015). Among the key industries in this region, there is undoubtedly mining, as it represents over 50% of the country's GDP in the mining industry, followed by fishing, agriculture and construction (Lara, 2009, 48).

#### 2.2.3.1. Analysis of the occupations

When looking at the chart number 6, commerce is again at the top, while representing 26% from the total. The average salary of a woman working in the commerce sector in the Antofagasta region is 280 381 CLP, which again falls way below the Chilean average of 382 253 CLP for women in general and 473 251 CLP for both sexes. Teaching on the other hand represents the second most frequent occupation

with an average salary of 590 003 CLP. However, when male being employed in the teaching, his earnings go up to 870 613 CLP and even though the representation of teaching at males occupation is not at the top, it still makes around 4% of the males occupations. Further data can be found in the attachment number 3.

10% of all the employed females in this region work in the private households with domestic service. The average salary reaches only 161 070 CLP. Men at the same position earn more than twice higher salary of 347 195 CLP.

Chart number 6: Female occupations frequency in the Antofagasta Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Mining and quarrying is at the top of the rank of the male's occupations, with 28% representation as can be seen in the chart number 7. Men earn on average 1 109 984 CLP in this sector in this region. This can have the negative impact on the overall results dramatically.

The second most frequent occupation for males in the Tarapacá region is transport, storage and communications and commerce is at the third place. Both of these employments reach an average salary close to the overall country's average, as transport, storage and communication reach on average 491 170 CLP and commerce 484 439 CLP.



#### Chart number 7: Male occupations frequency in the Antofagasta region



The final result of the region can be highly affected by the prevailing mining industry in this region, which holds a historical tradition. It has a high impact on the entire Chilean mining industry, as it represents over 46% of the country's copper output and 18,2% of the copper production in the world (Lagos, 2010, 2)

### 2.2.4. Región de Atacama

The Atacama region is the third administrative region in Chile. Its borders are shared with the Antofagasta region to the north, Argentina to the east and the Región de Coquimbo to the south. Its western borders are shored by the Pacific Ocean. The capital of the region is Copiapó, which is located approximately 65 km from the coast. It spreads on the area of 75 176,2 km, which represents 9,94% of the entire Chilean territory. It is the 11<sup>th</sup> region in size in Chile. Huge part of the region is represented by the Atacama Desert, other types of the relief are the coastal plains, coastal cordilleras, pampas and the Andes Mountains. In the Atacama region it is possible to distinguish between four types of weather in the longitudinal direction, from west to east: coastal desert, desert, cold mountain and desert tundra and transnational (Alvarado, Moya, 2008, 57).

The population counted for 292 608 people and 90 294 households by 2014. The employment rate of males reaches 69,10%, with an unemployment rate of 6,60%. Females are employed in this region by 44,9% and unemployed by 6,9%. In total, the labor market is represented by 58% by men and with 42% by women (INE, 2015).

Similarly to the Antofagasta region, the Atacama region is well-known for its mining industry. Gold, silver, copper, and iron have been the major commodities ever since the 18<sup>th</sup> century (Lara, 2009, 48).

## 2.2.4.1. Analysis of the occupations

The data for female occupations show very similar results as in case of the three previous regions. As shows the chart number 8, commerce is at the top of the list with 27% of females working in this sector. Teaching is at a second place with a 17% representation. However, with teaching the numbers turn interesting, as the average salary for a woman working in teaching reaches 587 327 CLP, however for the same sort of occupation, men get on average only 585 962 CLP, while teaching represents 4% from the total. Further data can be found in the attachment number 4.

Chart number 8: Female occupations frequency in the Atacama Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Public administration shows a high representation with a 10% share, with an average salary of 794 590 CLP, which stands out from the average female wage, together with the average wage for both sexes and furthermore, even the average male salary. However, public administration is also quite a common sort of employment for men in this region, with a 6% representation. However, men still earn average higher salaries in this sector with 952 695 CLP.

Similarly to the Antofagasta region, even in Atacama the most frequent sort of employment for men is mining and quarrying, while 23% of all the employed men work in this sector, with an average salary of 766 304 CLP. The average salary in this region for mining is therefore smaller than in the case of the previous, Antofagasta region.



Chart number 9: Male occupations frequency in the Atacama Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

The occupations all show the same result in terms of wage differences between men and women and therefore, in all of the sectors men earn on average higher salaries than women in the same sector.

#### 2.2.5. Región de Coquimbo

The fourth administrative region shares borders with the Atacama region to the north, Argentina to the east, the region Valparaiso to the south and the Pacific Ocean to the west. Its capital is La Serena. The size of the region is 40 579,9 km<sup>2</sup>, which represents 5,37% of the total Chilean territory and is the 7<sup>th</sup> largest region in Chile. The regional landscape is defined by the course of three major river basins that are located in this territory. These river basins are Elqui, Limari and Choapa. The relief is mostly formed by the coastal cordilleras and the intermediate depression. It can also be classified as the country's most mountainous region. The dominant feature in the climate is represented by the dryness. In general however, there are three basic climate types, which are desert, steppe and tundra (Alvarado, Moya, 2008, 75).

The population of the Coquimbo region was in 2014 counted to be 773 941 people, therefore we can speak about the 8<sup>th</sup> largest region in terms of the size of population. The number of households is approximately 243 520. In terms of the labor market, the employment rate for males reached 67,30% with unemployment rate of 7,00%. For women, the employment rate was 44,2% and unemployment rate was 7,1%. In total, the labor market employs 56% of men and 44% of women (INE, 2015).

Regarding the economic impact of the individual industries, there are again mining, with a 4,7% representation of the country's GDP in mining and also agriculture, which represents 4,8% of the country's GDP in agriculture (Lara, 2009, 48).

#### 2.2.5.1. Analysis of the occupations

In terms of the female occupations, commerce is again at the top as can be seen in the chart number 10. The average salary for a women in the commerce sector is 231 712 CLP. Teaching, as the second most frequent type of occupation for women reaches an average salary of 449 217, which is closer to the average salary for both sexes in Chile. Further data can be found in the attachment number 5.



#### Chart number 10: Female occupations frequency in the Coquimbo Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

The other 3 sort of employments, therefore manufacturing industry, agriculture, hunting and forestry and private households with domestic service all reach an average salary less than 200 CLP. The exception is the real estate, renting and business activities, which reaches an average salary for a women of 645 487 CLP, which is more than 3 times higher salary than in case of the three previous occupations mentioned.

In terms of men, mining and quarrying is the most frequent sort of production for males in this region, just in case of the Tarapacá, Antofagasta and Atacama regions, however, the percentage share of men employed in this sector is smaller, as there are 15% of men employed, which equals the second most common type of employment, which is agriculture, hunting and forestry. The share of employments in this region is therefore more equal between men. Furthermore, the results of average salaries for men in agriculture is 249 090 CLP, which is almost twice as low as is the country's average salary for both sexes. This time, the average salary for men in agriculture, hunting and forestry is even lower than is the average female salary in Chile. The share of the top 6 occupations can be seen in the chart number 11.



#### Chart number 11: Male occupations frequency in the Coquimbo Region



## 2.2.6. Región de Valparaíso

The Valpraíso region is the fifth administrative region in Chile. The capital of this region is Valparaíso, which is a maritime harbor which is famous as a favorite tourist destination. This region shares borders with the Región de Coquimbo from the north, Argentina to the east and the Región Metropolitana and the Región del Libertador General Bernardo O'Higgins to the south. It spreads on the area of 16,396,1 km<sup>2</sup>, which makes it the 13<sup>th</sup> largest region in Chile, representing 2,17% of the Chilean territory. The relief basically comprises of two types, which are the coastal plains and the inland mountainous area where the coastal cordilleras and the Andes overlap. Among the basic climates can be mentioned the steppe, warm temperate with winter rains, cold mountain and high mountain tundra up to the climate of overseas territories (Alvarado, Moya, 2008, 97).

The population reached by 2014 the level of 1 838 563 people, with 602 871 households. This region can be classified as the third largest region in population in Chile (INE, 2015).

The employment rate for males is 65,50% and 43,5% for females, while the unemployment rate for females reached 8,0% and 6,70 for males. Again, just in case of all the previously mentioned regions, these indicators show higher rates for males. The same case is for the percentage share of sexes in the labor market, where there are again more men employed with a 57% share, while female are represented only by 43% in the Valparaíso region (INE, 2015).

The region can be characterized by the economic importance of the manufacturing industry, which represents a 13,2% share of the country's GDP in manufacturing. Other key industries are transport, agriculture and construction, which represent 10,6%, 10,4% and 9,2% of the country's GDP in these sectors respectively (Lara, 2009, 48).

## 2.2.6.1. Analysis of the occupations

The pattern looks similar to the previous results in other regions, in terms of the female occupations. Commerce is still at the top with a 23% share of all women working in this sector. Teaching is again at a second position with a 15% share. The average salary at commerce still remains quite low, with an average of 238 498 CLP for women. Men at the same type of occupation earn 443 189 CLP. Further data can be found in the attachment number 6.

Teaching is financially more equal, as women earn on average 595 219 CLP and men 647 254 CLP. A 7% share of the occupation is represented by the hotels and restaurants, which is basically due to the tradition of tourism in this region, especially the capital Valparaíso.

On the other hand, when looking at male's occupations in the chart number 13, for the first time, commerce got in the first place of male's occupations, while 16% of all men work in this sector, however, other highly occupied sectors are again relatively the same as in the other regions, therefore transport, storage and communication, agriculture, hunting and forestry and manufacturing industry.



### Chart number 12: Female occupations in the Valparaiso Region



However, despite lower percentage share, mining still has its place in this region, as 7% of men are employed in the mining and quarrying industry.

Chart number 13: Male occupations frequency in the Valparaiso Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

#### 2.2.7. Región Metropolitana de Santiago

The Metropolitan region is often being introduced without an administrative number, abbreviated simply RM. The capital of this region is also the capital of Chile, Santiago. It shares borders with the Valparaíso region to the north, Argentina to the east and the Región del Libertador Gral. Bdo. O'Higgins to the south. It is the only Chilean region that does not have borders with the Pacific Ocean. This region spreads on the area of 15 403,2 km<sup>2</sup>, which represents 2,04% of the Chilean territory. The Metropolitan region is the smallest region in Chile in size. The relief can be divided into three basic groups, which are the traditional coastal cordilleras, intermediate depression and the Andes Mountains. The predominant climate in the region is Mediterranean, with rains that begin in the fall and increase in winter while the summer months are very dry (Alvarado, Moya, 2008, 279).

Despite the size in area, this region is the largest in terms of population. By 2014, there were 7 118 429 people and 2 094 676 households. This region contains 40% of all the people living in Chile. The labor market can be characterized by 67,90% employment rate of males and 48,4% employment rate of females, which makes it the region with the highest female employment rate in Chile. The unemployment rates were 6,30% for males and 6,6 for females, which falls among the average, however, represents the fourth least difference in unemployment between men and women. The share of men and women in the labor market is 54% of men and 46% of women (INE, 2015).

Amongst the main economic activities of the region, there is a huge role of administration and financial services, as there is the capital of the country, however, there are also several key industries, such as mining, agriculture, which plays a major role in the Chilean agriculture sector, whilst it produces one third of the vegetables and more than quarter of the fruit. The Metropolitan region represents up to 76,8% of the country's GDP in financial services, 45,2% in manufacturing industry, 64,4% of the country's GDP in retail trade and 52,2% in transport and communication (Lara, 2009, 48).

### 2.2.7.1. Analysis of the occupations

Among the three most frequent occupations, there is commerce, private households with domestic service and teaching. The one thing that is different from other regions is that private households with domestic service stand at the second place, representing 14% share of all the occupations. Females in this sector earn on average 223 071 CLP, which is more than in the other regions for the same sort of job, however, is still below the females' average in Chile. On the other hand, commerce, representing 24% share of the occupations gives an average wage of 316 352 CLP, which his higher than in other regions mentioned, where the average salary for commerce at women was 271 884 CLP. A woman in teaching earns on average 513 843 CLP, which is still less than men in teaching, who earn on average 705 021 CLP. Further data can be found in the attachment number 7.

Chart number 14: Female occupations frequency in the Metropolitan Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

At males' occupations, there is commerce at the top with 21% of the males working there. Men in this type of employment earn on average 524 503 CLP, which is again higher than women.



Chart number 15: Male occupations frequency in the Metropolitan Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Manufacturing industry also plays an important role in the employment sector, with an average wage of 513 308 CLP. Real estate, renting and business activities are among the six most common types of employments in this region. Men in this sector can earn on average 923 435 CLP, while females earn 614 702 CLP for the same type of job.

# 2.2.8. Región del Libertador Gral. Bernardo O'Higgins

Región del Libertador Gral. Bernardo O'Higgins, or shortly the O'Higgis region, is the sixth administrative region in Chile. It was named after the first president of Chile, Bernando O'Higgis. The capital of this region is the city of Rancagua. It borders the Valparaíso region and the Metropolitan region to the north, with Argentina to the east and the Maule region to the south. Its area is 16 387,0 km<sup>2</sup>, representing 2,17% share in terms of the entire Chilean territory. Its rank in size is 14, therefore this is the second smallest region in Chile. The relief comprises of the four traditional forms, therefore the coastal plains, coastal cordilleras, intermediate depression and the Andes Mountains. This region is under the control of warm-temperate climate with winter rains (Alvarado, Moya, 2008, 123).

The population number is 934 459 people and 301 589 households, which brings this region to the sixth place in terms of size in population. The data from the labor market show more positive results for males again, rather than females, as the employment rate for men is 68,80% and for women 43,7%. The unemployment rate for men is 5,20% and 5,90% for women. The difference in unemployment is therefore not that tremendous. The percentage share of both sexes in the labor market is 59% of men to 41% of women (INE, 2015).

The major economic activity takes place in the mining industry, which represents 5,4% of the Chilean copper production, however, the key industry is agriculture, which represents 21% of the country's GDP in agriculture production (Lara, 2009, 48).

### 2.2.8.1. Analysis of the occupations

The sphere of female occupations remains almost the same as in the previous cases. Commerce is at the top with a 22% share, followed by teaching. The average salaries vary only slightly from the previous regions, when the average salary for a female commerce worker is 224 822 CLP and for males 328 965.

Chart number 16: Female occupations frequency in the O'Higgis Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Teaching, as the second most common type of female employment can be characterized by an average salary for females of 378 844 CLP, while men earn 505 171 CLP. Then there is agriculture, followed by households with domestic service, where the average salary goes way down to 147 286 CLP. Men on the other hand earn 208 854 CLP, for the same type of job. Further data can be found in the attachment number 8.

When looking at the top 6 males' occupations, the top position is represented by agriculture, hunting and forestry, as it represents 27% in the O'Higgis region. However, what is interesting is that the composition of the top male employments does not differ way from the top female employments. They both contain relatively high percentage of commerce, agriculture and manufacturing industry. Women differ from men especially with teaching and hotels and restaurants and the private households with domestic service, while men remain at construction, transport, storage and communications, together with the public administration.



Chart number 17: Male occupations frequency in the O'Higgis Region

#### Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Mining and quarrying, which is the 7<sup>th</sup> most common type of male's employment reach average salaries of 701 087 CLP, while women for the same sort of job earn even

more, 701 619 CLP. However, a relatively small percentage of women work in this sector, as it remains the second least represented type of employment for women.

When looking at the data, the differences in earnings do not seem to be that huge, however, it is probably mostly caused by the fact that men do not earn such high salaries, in comparison to men in other regions in the same sort of job. As in case of commerce sector, where men earn on average 328 965 CLP, in all of the previous regions mentioned, men earned even by 100 CLP more for the same job, except for the Arica y Parinacota region, where men earned 328 801 CLP.

The frequency of occupation directly shows the country's economic streanght, which is the agriculture sector, as it represents the first most common type of employment for males and the third most common type of employment for females.

### 2.2.9. Región del Maule

Región del Maule, or the Maule region is the seventh administrative region of Chile and borders with the O'Higgis region to the north, Argentina to the east and the Bío-Bío region to the south. Its capital is the city of Talca. The region spreads on the area of 30 296,1 km<sup>2</sup>, which means it represents 4% of the entire Chilean territory and it is the 4<sup>th</sup> largest region in Chile. In this region, there are several basic forms of relief, which spread from the sea to the mountains, which are the coastal plains, coastal range, intermediate depression and the Andes. The generally prevailing climate in this region is the Mediterranean one, with certain variations in results caused by the increased latitude and lowering altitude, that presents the relief (Alvarado, Moya, 2008, 147).

By 2014, there was the population 1 057 922 people, with 348 934 households, which makes it the fourth largest region in Chile in population. The labor market can be characterized by an employment rate of men of 68,0% and of women of 40,9%, which is the second lowest employment rate of women in Chile, after the Bío-Bío region. The unemployment rates are 7,6% at women and 4,9% at men. The share of the two sexes in the labor market is 59% of males and 41% of females, which stands below the Chilean average, which is 56% of males and 44% of females (INE, 2014).

For the Maule Region, agriculture and forestry are the key economic activities, in terms of Chile, as it represents 15,4% of the Chilean GDP in this sector (Lara, 2009, 48).

#### 2.2.9.1. Analysis of the occupations

The share of female occupations is again very similar to the one in all of the previous regions. Commerce takes the first place with a 23% share, followed by teaching represented by 15%. Agriculture, hunting and forestry stands on the third place with a 12% share. Further data can be found in the attachment number 9.

Chart number 18: Female occupations frequency in the Maule Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

This time, the average salary for female agricultures is 278 713 CLP, which is quite interesting, since agriculture is at the top of males occupations in this region and they earn less with 261 691 CLP on average. It is for the first time when females earned more in an employment that is dominated by men with the highest percentage. However, commerce, which is the highest represented occupation for females, shows an average salary for females of 242 228 CLP, while men earn on average 361 905 CLP for the same type of job.

Commerce however, is the second most common type of employment in men in the Maule region. Public administration, with a 5% share gives an average salary of 629 576 CLP, in comparison to females employed in the public administration, who earn only 370 333 CLP on average.



Chart number 19: Male occupations frequency in the Maule Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

### 2.2.10. Región del Bío-Bío

The eight administrative region del Bío-Bío borders with the Maule region to the north, Argentina to the east and the Araucanía region to the south. Its western borders are shored by the Pacific Ocean. The capital of this region is the city of Concepción, which is an important urban and industrial area of this region. It spreads on the area of 37 068,7 km<sup>2</sup>, representing 4,9% share of the Chilean territory, which makes it the 8<sup>th</sup> largest region in Chile. The relief is mostly formed by four basic types, which are coastal plains, coastal cordilleras, intermediate depression and the Andes Mountains. The climate has generally 3 types, which are the warm temperate climate with short dry seasons, temperate rainforest and the height climate (Alvarado, Moya, 2008, 169).

By 2014, the population of the Región del Bío-Bío was 2 134 834 people, which makes it the 2<sup>nd</sup> largest region in population. By 2014, there were also 684 928 households. The labor market shows an employment rate of 61,20% for males and

38,3% for females, which makes it the region with the lowest employment rate for both sexes. The unemployment rate for males was counted to be 7,70% and 8,7% for females, which makes it naturally the region with the highest unemployment rate both for men and for women. The labor market comprises of 57% of males and 43% of females (INE, 2015).

This region is an important Chilean region especially due to its industrial manufacturing industry, as it represents 20,3% of the country's GDP in manufacturing. Other important industry is the agriculture, representing 15,1% and fishing, 20,6% (Lara, 2009, 48; Dresdner, 2009, 8).

#### 2.2.10.1. Analysis of the occupations

At the top positions of occupations of females, there is commerce and teaching followed by work at the private households with domestic service. The pattern is therefore similar to the one in the previous regions. Working in the private households with domestic service is therefore among the three most frequent occupations. The average salary for this type of work is 131 961 CLP, which is more than twice smaller than the female Chilean average of 382 253 CLP. Further data can be found in the attachment number 10.

Commerce sector in this region gives an average wage for women of 215 086 CLP, while men earn over 123 000 CLP more, 338 711 CLP. The difference at commerce in this region between men and women is not that huge, since 123 000 CLP is around 186 USD. Further division of female occupations can be viewed in the chart number 20.



Chart number 20: Female occupations frequency in the Bío-Bío Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

On the other hand, manufacturing industry, which is the second most frequent type of occupation for men gives average salaries for men of 463 892 CLP, while women earn only on average 231 238 CLP, meaning men earn on average more than twice as much for the same type of job than women. The following picture shows the percentage share of male occupations.

Chart number 21: Male occupations frequency in the Bío-Bío Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

### 2.2.11. Región de la Araucanía

The 9<sup>th</sup> administrative region de la Araucanía shares its northern borders with the Bío-Bío region, eastern borders with Argentina and its southern borders are shared with the Región de los Ríos. The capital of the region is Temuco. The area is 31 842,3 km<sup>2</sup>, which represents 4,2% of the Chilean territory. It is the 9<sup>th</sup> largest region in Chile. The relief is traditional, in terms of the other Chilean regions. There are the coastal cordilleras, which turn into the coastal plains to the south of the region. Other reliefs are intermediate depression, precordilleras and the Andes. This region is the transition zone between the Mediterranean climate zone and wet temperate climates with rainy-oceanic influence (Alvarado, Moya, 2008, 197).

The population of the Araucanía region was 1 028 866 people and 339 237 households. It is the 5<sup>th</sup> largest region in population in Chile. The employment market can be characterized by 68,30% employment rate for males and 45,6% employment rate for females. The unemployment rate for males by 2014 was 5,50% and 6,9% for females. The share of both sexes in the labor market is 56% of men and 44% of women (INE, 2015).

Apart from its economic contribution to the Chilean GDP thanks to its agriculture industry, which represents 7% of the country's GDP in this sector, this region can also be classified as the poorest region in Chile in terms of GDP per capita (Lara, 2009, 48-49).

#### 2.2.11.1. Analysis of the occupations

The data show that for the first time in this regions analysis, teaching stands in the first place of the occupations frequency, as shows the chart number 22. This time, the average salary for females in teaching is 428 887 CLP. For the first time since the regions description, at the top of the female occupations there is an occupation with an average salary higher than is the average of females in general in Chile, which is 382 253 CLP, however, the average salary for females in teaching still does not exceed the general average salary for both sexes, which is 473 251 CLP. In the third place,

there are private households with domestic service. Here, the average salary is 129 569 CLP, which is again way below the Chilean average of female earnings. Further data can be found in the attachment number 11.



Chart number 22: Female occupations frequency in the Araucanía Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015



Chart number 23: Male occupations frequency in the Araucanía Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

At the top of the most frequent male occupations, which can be viewed in the chart number 23, there is agriculture, hunting and forestry, with an average salary for males of 203 748 CLP. Therefore, women in the Araucanía region earn more CLP at the most frequent type of employment of men. Teaching here for males represent a 6% share in terms of the occupations frequency. An average salary for males in teaching is however higher than the one at females, 668 030 CLP. Unlike at females, this average exceeds not only the country's average, but also the males' average of 543 996 CL.

## 2.2.12. Región de los Ríos

It is the 14<sup>th</sup> administrative region in Chile, with borders to the north with the Araucanía region, to the east with Argentina, to the south with the Región de los Lagos, and to the west with the Pacific Ocean. Its capital is the city of Valdivia. Its area is 18 429,5 km<sup>2</sup>, which represents 2,44% of the Chilean territory, making the Región de los Ríos the 11<sup>th</sup> largest region in Chile. The most dominant relief forms are the Andes Mountains and the coastal cordilleras. The climate includes five basic types, which are the temperate rainforest with Mediterranean influence, temperate warm summer rain with lower rainfall, warm temperate rain, rainy or temperate cold of mountain ice and the climate height (Alvarado, Moya, 2008, 315).

The population counted for 392 464 people and 127 698 households, which makes it the 10<sup>th</sup> largest region in population. The employment rate in the labor market for males is 67,30% and 43,1% for females. Males in this region are subject to 3,80% unemployment rate, while women to 6,1%. The share of sexes in the labor market is 57% share of men and 43% share of women (INE, 2015). Among the most important economic activities of this region, there is forestry, livestock breeding and tourism (Gobierno Regional, 2016)

### 2.2.12.1. Analysis of the occupations

At the top of the occupations by share of women, there is again commerce, representing 20% of all the female occupations in this region, which shows the chart number 24. The average salary is 206 925 CLP, which is again more than twice less

from what earn men for the same type of occupation. A change in the spectrum can be seen with working at the private households with domestic service, which represents the  $2^{nd}$  place. In this sector, women earn on average 120 206 CLP, which is again way below the country's average for both men and women. Men on the other hand earn on average 267 776 CLP for the same type of occupation. Further data can be found in the attachment number 12.



Chart number 24: Female occupations frequency in the Region de los Ríos

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Agriculture, hunting and forestry represent the most frequent type of employment for males with a 22% share, followed by the manufacturing industry with a 15% share of employments. An average earning of a male employed in this industry is 388 544 CLP, which is more than the female country's average, but less than the average salary for both sexes in Chile.



Chart number 25: Male occupations frequency in the Region de los Ríos

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

### 2.2.13. Región de los Lagos

The 10<sup>th</sup> administrative region in Chile shares borders with the Región de los Ríos to the north, Argentina to the east and the Aisén region to the south. Its western borders are shored by the Pacific Ocean. The capital of the region is the city of Puerto Montt. The area of this region is 48 583,6 km<sup>2</sup>, which makes this region the 5<sup>th</sup> largest region in Chile by size. It represents 6,43% of the Chilean territory. When speaking of the relief of this region, a dominant part is represented by the glacial forms, together with the volcanic reliefs. Altogether, there are five basic forms of relief, which are coastal plains, coastal mountain range, intermediate depression, volcanic Andean cordillera and Andean Patagonian cordillera. The climate is very humid with rainfall almost all year round. In general, there are five types of climate, which are the temperate rainforest with Mediterranean influence, temperate warm summer rain with lower rainfall, warm temperate rainy, rainy or temperate ice sold mountain and climate height (Alvarado, Moya, 2008, 221).

The population of the region was in 2014 counted to be 892 086 people and 300 478 households. By ranking, the Región de los Lagos is the 7<sup>th</sup> largest region in Chile in terms of population. When describing the situation in the labor market, in terms

of employment and unemployment, there were 71,00% of males employed and 3,00% unemployed. At the same time, there were 46,2% females employed and 6,1% females unemployed. The percentage share of the two sexes in the labor market is 58% of men and 42% of women (INE, 2015).

In terms of the economic activities, this region is a key agricultural producer in Chile, as it represents 10,5% of the Chilean production of GDP, however, fishing represents 48,2% of the entire GDP of this industry, which makes the Region de los Lagos the biggest producer in the fishing industry (Lara, 2009, 48).

## 2.2.13.1. Analysis of the occupations

Chart number 26: Female occupations frequency in the Region de los Lagos



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Among the most frequent occupations there again commerce, teaching and private households with domestic service. The average salaries for these occupations are quite similar to those in the other regions. Commerce gives an average salary of 245 631 CLP, households with domestic service of 151 927 CLP and teaching, which is doing slightly better gives an average salary of 474 566 CLP, which exceeds the country's average salary for both sexes. Further data and numbers can be found in the attachment number 13.
However, women working in the public administration can on average earn up to 721 337 CLP, which is even higher than the average salary for males in Chile, which is 543 996 CLP. However, since public administration represents only around 8% of the occupations share, the impact may not be that significant, since most women are employed in the sector where they earn on average less than 245 631 CLP and 13% of women earn on average 151 927 CLP.



Chart number 27: Male occupations frequency in the Region de los Lagos

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

The structure of males' employments can be viewed above, in the chart number 27. Majority of males in this region is employed in agriculture, with a 19% representation. 15% of males are employed in commerce sector, where they generate on average up to 524 703 CLP, which is again higher from the average salary of women in the commerce sector. Manufacturing industry is representing a 13% share of occupations for male, who earn on average 588 368 CLP in this sector. Surprisingly, fishing, which is undoubtedly the key economic activity in this region represents only 7% share in the total percentage of occupations.

# 2.2.14. Región de Aysén del Gral. Carlos Ibáñez del Campo

The 11<sup>th</sup> administrative region of Chile, in shorter form the Aysén region, shares borders to the north with the Región de los Lagos, Argentina to the east and the Región de Magallanes to the south, with the Pacific Ocean in the west coast. This region represents 14,35% of the Chilean territory, which is 108.494,4 km<sup>2</sup>, making the Aysén region the third largest region in terms of the size. The most dominant form in the relief are the Andes Cordilleras and abrupt and complicated territory due to glacial activity combined with the tectonic subsidence. In climate, there is a strong influence of the polar front. In general, there are few major climatic types, which are the cold temperate rain and continental trans Andean steppe with degradation of cold and ice steppe, caused by the height (Alvarado, Moya, 2008, 245).

Despite the size of the area, in population the Aysén region is the number one least populated region in Chile, with 110 612 people living there by 2014, and 40 042 households. In terms of employment rate, it was 74,20% for males and 56,4% for females. The unemployment rate for males was only 3,10% and 4,8% for females. The share of sexes in the labor market is relatively close, as there are 54% of men and 46% of women (INE, 2015).

In terms of economy, this region dominates with marine, mining, forestry and animal breeding. Fishing is the key economic industry for this region, as it represents 10,5% of the Chilean GDP in the fishing industry (Lara, 2009, 48).

# 2.2.14.1. Analysis of the occupations

Among the top female occupations, there is slightly different pattern from other regions, as at the second most frequent place, there is public administration. Women working in this sector earn on average 534 357 CLP, which exceeds the average salary of a Chilean regardless the sex. This time, public administration shows even the same percentage representation of females' occupations with commerce, which is 16%.

Private households with domestic service are in the fifth place, as 11% of women in this region work there. Further data can be found in the attachment number 14.



Chart number 28: Female occupations frequency in the Aysén Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

When looking at the percentage share of males' occupations, in the chart number 29, we can see that in the first position, there is public administration with a 17% share. Men in this sector earn on average 927 786 CLP, which is 1,73 times more than the average income of women working in the public administration. Commerce here stands at the second place, as 12% of males work in this sector, and their average wage is 428 811 CLP, which is 1,48 times higher than the average female income in commerce.

Manufacturing industry is another important type of employment for both men and women, however, both of the sexes earn relatively low wage, as females earn on average 170 692 CLP and males 373 766 CLP. Men earn again more, this time even by 2,19%, however, both of the incomes are below the country's average for both men and women.



#### Chart number 29: Male occupations frequency in the Aysén Region



# 2.2.15. Región de Magallanes y Antártica Chilena

The Region of Magallanes is located in the southern part of Chile. It is the 12<sup>th</sup> administrative region, with a capital of Punta Arenas. In the north of the region, there are borders with the la Región Aysen del General Carlos Ibáñez del Campo, to the east it borders with Argentina, to the west with the Pacific Ocean and to the south, there is the South Pole. The area of the region is 132.291,1 km<sup>2</sup>, representing 17,5% of the Chilean territory, making the Region of Magallanes the first largest region in Chile by size. The relief is created mostly by the mountainous areas and glaciers. In general, there are three basic areas of relief, which are the Andes, archipelagic and pampas. There are five main types of climates, which are the temperate cold with high humidity, cold steppe, perpetual ice, tundra and polar (Alvarado, Moya, 2008, 263).

Despite the size of the region, in population this region represents the second least inhabited region in Chile, with 161 748 people and 57 226 households. In terms of employment rate, by the year 2014 it was 72,50% for males and 45,4% for females. The unemployment rate is however the lowest for both sexes in Chile, with a 2,10% unemployment rate for males and 3,5% for females. Even though the numbers

concerning unemployment rate was the best in all the Chile, the percentage share of men and women in the market is among the words, as there are only 39% of women in the labor market and 61% of men (INE, 2015).

In the terms of economic activities of this region, there is the fishing industry which represents 5,2% of the country's GDP in fishing, manufacturing industry representing 3,3% and furthermore, mining is amongst the key industries with 2,1% share in the country's GDP in the mining industry, followed by the transport, storage and communications with also 2,1% share (Lara, 2009, 48).

# 2.2.15.1. Analysis of the occupations

The chart number 30 shows that a 20% share of all the occupations is represented by teaching. A woman earns on average up to 612 038 CLP, which stands even higher than the Chilean average for males of 543 996 CLP, however, there is again a difference between sexes as men earn on average 1 038 875 CLP in the same type of employment. Further data can be found in the attachment number 15.

Chart number 30: Females occupations frequency in the Magallanes Region



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Private households with domestic service represent the third position, as 12% of women in this region work in this sector. Their average salary is again below the Chilean average, 151 115 CLP.

Commerce is in the first place concerning males' employments, followed by the public sector with a 14% share. In commerce, an average salary for males is 369 492 CLP, which is not even strongly higher from the female average, which is 362 334 CLP.



Chart number 31: Male occupations frequency in the Magallanes Region

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, 2015

Public administration, which is the second most common type of employment for males and the fourth most common type of employment for females, gives an average salary of 890 454 CLP for females and 1 158 401 CLP for males. This time, both sexes earn higher salaries than is the average Chilean salary. Women in the public sector earn even 5,89 times higher average salary than women working in the third most common type of employment, which is private households with domestic service.

# 2.3. Summary of the results

In general, the regions description, together with the occupation analysis, gave several key points. Out of the total of 3 292 016 women in Chile, 24% of them work in

the commerce sector. The share of men in this sector is 18%, as there are 4 234 404 men in the Chilean labor market. This sector gives an average salary of 271 884 CLP for females and 457 033 CLP for males (INE, 2015), as was also stated during the description of the regions.

Teaching represents the second position, as 18% of Chilean women work in this sector. Their average earnings are 486 857 CLP, which is more than is the Chilean female average wage, however, men earn still more in this sector with 655 683 CLP, while their representation in teaching stands at 4%.

The third most common type of employment for women in Chile is working in the private households with domestic service. Up to 13% of women in Chile work in this sector, having an average earning of 180 943 CLP, however, as we could see from the data mentioned at the regions analysis, in many regions the average earning of females in the private households went even below the country's average for this type of employment, as in case of the Región de Magallanes y Antártica Chilena, Región de Aysén del Gral. Carlos Ibáñez del Campo, Región de Arica y Parinacota and other.

As in case of the most frequent male occupations, commerce stands in the first place, with 18% representation. The second most common type of employment for males is the manufacturing industry, with an average salary of 493 807 CLP, while women can earn on average 276 175 CLP for the same type of employment. Next, there is construction and agriculture with 12% share in total.

From the data it is obvious that there exists certain level of gender segregation in the Chilean labor market. As men are more frequently employed in industries requiring physical strength or activity, as among the top six occupations, there are agriculture, manufacturing industry, construction, transport, storage and communications or in many regions, the key type of male employment is mining.

On the other hand, in majority of the regions, the second most common type of female employment was teaching, which generates relatively higher average earnings, however, the earnings are still lower than those that men earn in the same type of job. Vast majority of women in all the regions are employed in households with domestic service and unfortunately this type of occupation can be characterized by more than twice lower average wage than is the country's total average wage for women.

When concluding to the differences, each region can be characterized by a certain important economic activity. These activities are further reflected in the occupational structure. Regions such as Antofagasta, Tarapacá or Atacama, where there is an obvious importance of mining industry show this type of occupation at the top males' list of occupations. However, they key industry within the region only slightly reflects in the results of the most frequent female occupations. In 13 out of the 15 Chilean regions, the most frequent type of occupation for females remains commerce. The only exception is the Region de la Araucanía and Región de Magallanes y Antártica Chilena, where the most common type of employment for women is teaching. The structure of the three most common types of employments for women remains the same in 14 regions of Chile, where it is commerce, teaching or working at households with domestic service. Especially the third most common type of employment is the one that shows one of the lowest average salaries. The only exception in the regions, concerning the structure of the three most common types of female occupations, is Región de Aysén del Gral. Carlos Ibáñez del Campo, where at the second position, there is public administration. This might have a positive effect on the final rankings, if it was not for the fact that men in this region get paid more by 42% in public administration itself and at the same time, public administration remains the most common type of employment for men.

From the structure of occupations within the 15 Chilean regions, there is an obvious pattern of a choice. There is only negligible part of females working in the key economic industry of each region, which is mostly represented by men, while women remain in the lower valued types of employments.

#### 3. The composite indicator

This work has already described the general problem of gender inequalities in the market, with the focus on Chile, together with the regions description focusing on the major types of occupations for both men and women separately. Furthermore, it is important to create a list of these regions, ranking them in terms of inequalities between men and women in the market. For the purpose of ranking, creation of composite indicator will be used, in accordance with five basic variables, which are inequalities in employment rate, inequalities in unemployment rate, differences in wages between men and women in general and with focus on age group and lastly, inequalities in wages between men and women according to the level of education.

Those are also the five variables that this thesis focuses on in terms of comparing the regions by creating a composite indicator, which finds out which region is more prone towards gender inequalities in the market and which less, based on those variables. Therefore, the key objective of this part is to give a list of regions ordered by inequalities in the market. Those 15 Chilean regions shall be the statistical units, which can be seen in the table number 1, which also shows number of inhabitants. For putting the results into better perspective, the country's average was also used and included in the counting.

Within Chilean regions, there exist natural differences caused by various reasons. Each region has different number of inhabitants, each region is located in a different territory and each region has a different percentage representation in the 17 key occupations listed in table number 2. All of this brings us towards natural differences in wages not only across gender, but mostly between people without gender specification. The characteristics of each single region can be seen in part two of this thesis and the findings in the analysis of the most frequent occupations in the Chilean regions will work as a contributory factor helping to explain the results of the composite indicator.

#### 3.1. Data analysis

The main objective is to find the region which reflects the smallest differences between men and women based on the chosen economic variables. For that, the method of composite indicator shall be used.

The method of creation the composite indicator enables synthesizing various variables together to give a more precise look into the diagnosed problem. Firstly, it is important to choose variables. For this analysis, the chosen variables are mentioned in the chapter number 3.3., with the detailed description of the variables.

The method often requires assignment of weights, however, the weights should be attributed by a throughout analysis by group of experts and this analysis unfortunately does not contain sufficient information concerning weights. Those will be therefore eliminated which means that all variables will be treated equally.

When choosing the correct method, the method of Z-scores was chosen since it does not eliminates outliers. For example, the Metropolitan region will probably act as an outlier, as it is the biggest region with the city of Santiago, however, for the analysis, it cannot be omitted from the rest of the regions. The method of Z-scores can also be easily aggregated, since the higher the value of composite indicator, the better the final rank. However, in this case, the higher rank means higher differences. Ranking of the results therefore gives us order of the regions, enabling an easy comparison of the regions.

## 3.2. Construction of the Composite Indicator

When constructing the composite indicator, it is important to create two indicators at first, for men and for women separately. Further indicator will be created by subtracting one resulted indicator from the other (for example subtracting "male" indicator from the "female" one or the other way around) and by turning the results into absolute values. You can find the appropriate table in the attachments as Attachment number 16 for women and Attachment number 17 for men.

For creation of the indicator, the method of Z-scores shall be used. The method works with the following formulas:

Max type: used when the variable follows the pattern of the higher the better:

$$Z_j = \frac{X_j - \overline{x_j}}{\sqrt{\operatorname{var} x_j}}$$

*Min type:* is being used when the smaller the value the worse:

$$Z_j = \frac{\overline{x_j} - X_j}{\sqrt{\operatorname{var} x_j}}$$

Source: Larose, Larose, 2015

## 3.3. Variables

In order to proceed towards the possible overview of the regions, which is supposed to tell us which region is doing better and which worse in terms of gender inequalities in the market, there are five key variables that were chosen.

All of the variables contain data for the year 2014 and are gathered from the Instituto Nacional de Estadísticas, Chile. Also, all the variables give separate numbers for men and for women.

- % Of Employment: Gives number that expresses the percentage of economically active people above 15 years of age that are employed. According to the INE (2015), a person can be called "employed" if he or she is at least 15 years old and in the last week worked for at least one hour and received some sort of pay. This is the max type of variable, as higher employment rate is desirable.
- % Of Unemployment: Gives number which expresses the percentage of economically active people above 15 years of age that are unemployed. As unemployed we also understand all the people aged 15 and older who were

seeking for a job for at least four weeks and those who are available to work within the next two weeks (INE, 2015). This is the min type of variable, as higher rate of unemployment is not desirable.

- Average salary: This variable expresses the average salary, which is counted by putting all of the given salaries together and dividing them by the number of people receiving salary. The numbers used were expressed in Chilean pesos. This is the max type of variable, as the higher the average salary, the better.
- Average Salary at Modus Age Group: It is an average salary received at the age group which counts for the highest frequency. For Chile, the modus age group is between 45 54 years of age, however, in some regions the modus age group dropped between 35 44 years of age, however, as age can be an important factor contributing to the level of salary, this thesis counts with the majority modus age group, therefore the age group of 45 54. The numbers are expressed in Chilean Pesos. This is the max type of variable.
- Secondary Education Graduates Average Salary: This number expresses the average salary of those who reached the level of secondary education. For the sake of this thesis, secondary education was chosen as the most relevant one, as it is the education which reaches the highest frequency among Chileans. The numbers are expressed in Chilean Pesos and this is the max type of variable.

As the second part of this thesis gave a detailed description of the units, the Chilean regions, it is also important to give a description of the variables in terms of Chile. Therefore, right before proceeding towards the creation of the composite indicator, it is important to give a detailed description of each of the separate variables.

## 3.3.1. Employment rate

When describing the participation of both, men and women in the labor market, from the population over 17 million, labor market employs altogether over 7, 5 million people, with unemployment rate of 6,9% of women and 6% of men in total (INE, 2015).

The following chart number 32 shows the workforce composition for the year 2014. The chart shows that women are represented only by 44%, with percentage lower

from the men representation in the labor market by 12%. The percentages show the total number in all of the 15 Chilean regions combined, however, counts solely with the number of people represented in the market, without counting in the employment rate. It goes to show that women on average represent smaller part of the total share. This percentage however also differs within the different regions themselves.

Chile Workforce Composition by Sex

Chart number 32: Chile Workforce Composition by Sex, 2014

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

For more precise number, showing detailed differences between men and women in the Chilean regions, there is the following chart number 33, which shows the percentage difference in employment rates in the 15 regions. The chart shows the difference in percentage, or in other words, of how many percent women are less represented in the labor market, than men.

This time, the chart number 33 counts with the employment rate and express the differences in the percentage of males and females being employed in the market. Therefore, the counting took into account the percentages of males and females in the labor market in the different regions and by subtracting the values, shows the percentage

difference between the sexes in employment rates. The country's average was added to the chart to give a better perspective on the problematic.



Chart number 33: Difference in employment rate between men and women, 2014

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

From the chart, it is obvious that there are more males participating the labor market than females in all the regions of Chille, starting with 17, 8% difference in the Región de Aysén del Gral. Carlos Ibáñez del Campo, rising up to 29, 3% difference in the Región de Antofagasta.

More than half of the regions are subject to over 23% difference in employment between men and women. Surprisingly, the region Metropolitana, which is the largest region in population, shows the second smallest difference of 19, 5%. When comparing the results to the Chile's average, we can see that only 4 regions in Chile scored better than the average.

# 3.3.2. Unemployment rate

Taking into consideration unemployment rates, women suffer from higher unemployment in 14 regions of Chile, as can be seen in the chart number 34.

Chart number 34: Difference in unemployment rates between men and women, 2014



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

The only exception is the region Arica y Parinacota, where there are more unemployed males than females by 1, 3%. This region also shows a third lowest difference in employment rates between men and women. The Metropolitan region, as the biggest Chilean region in population, stands in the fourth place, concerning the % difference in unemployment between men and women and when looking at the differences in employment, the region stands in the second place. The chart also shows that 7 out of the 15 Chilean regions show better results than the average. However, even the average shows negative results for women in terms of unemployment rate and it shows that not only women are underrepresented in the labor market by 12%, they are also subject to higher unemployment rates. This might also be one of the reasons why women tend to occur being employed in occupations that offer lower paying jobs, as they might choose working for smaller income than not working at all.

#### 3.3.3. Average salary

Before giving a detailed numbers of wages and the differences in wages between men and women in Chile, it is important to put the numbers into perspective.

An average salary in Chile for the year 2014 was 473 251 Chilean Pesos, which, under current trend, means approximately 16 396,7 CZK or 692,2 USD. However, as an average number, this includes both sexes. When looking at differences between men and women, the average monthly wage for men in Chile is around 543 996 Chilean Pesos, meaning 18 829 CZK and 795,6 USD but for women, the monthly earnings reach on average the level of 382 253 Chilean Pesos, which means 13 230,7 CZK and 559 USD (INE, 2015).

This means, that women in Chile get on average 161 743 Chilean Pesos less than men in their monthly earnings, which in the overall picture means that women earn almost 30% less money than men. However, as the chart number 35 shows, this is again just an average difference, as in the different regions of Chile the percentage difference in earnings between men and women gets even higher.

When focusing on the different regions, the chart number 35 illustrates the average differences in the 15 regions of Chile, showed in numbers of percent.



Chart number 35: Differences in earnings between men and women, 2014

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

When focusing onto those different regions, it is now more than obvious that those 30% difference in earnings between men and women were just illustrative. The final picture seems to be better in more than half of the regions, as exactly 8 regions fall below the average, but still exceeding 20% difference. On the other hand, there are 7 regions that show even worse results, while exceeding 30% and the Antofagasta Region even shows rate over 40% difference.

When looking back at the chart number 33, which shows the difference in employment rates between men and women, the Antofagasta region has also fallen at the worst place. The Antofagasta Region can be characterized by the mining industry, which employs men as the most frequent type of occupation in this region. Men in this industry generate one of the highest incomes in Chile, which explains such differences between men and women, as women are represented in the mining industry only by 4,5%, while men by 28%.

On the other hand, the regions with the lowest gender difference in pay are the Región de Magallanes y Antártica Chilena, the Región de Los Ríos and the Región de la Araucanía. In case of Magallanes y Antártica Chilena, here we are speaking about the second least inhabited region in Chile and Los Ríos being the 6<sup>th</sup> least inhabited. In case of Araucanía, these are fairly more inhabited regions, as Araucanía exceeds the population of 1 million inhabitants. However, even though these regions show without the doubt better results concerning the pay difference than other regions in Chile, they all still exceed 20% difference, which means none of these regions can be said to have a low wage difference between men and women.

### 3.3.4. Average salary by age

When analyzing differences in pay, there are more possibilities of interpreting the data other than focusing only on the differences between regions. This part therefore offers pay differences between men and women with the focus on age of the workers. The chart number 36 shows the population pyramid in Chile. For further counting, there were selected 7 key age groups. These were the age groups selected by the National Statistical Institute of Chile, who encloses them with further statistical data. The age groups are:

- 15-25
- 25-29
- 30-34
- 35-44
- 45-54
- 55-64
- 65 and more

From the chart number 36, it is obvious that the group with the highest frequency is the age group of 45- 54 years of age. From this age, the pattern goes in a descending order, with the exception of the age group 55- 64, which is the third most frequent age

group. This tells us that the modus age group in Chile is the age group of 45-54 years of age, therefore this is the age group the composite indicator will work with.



Chart number 36: Age composition of the Chilean population, 2014

#### Source: CIA, 2016

In the following chart number 37, you can see the age composition and the difference in average monthly earnings by sex in Chile. The chart shows percentage difference in earnings of men and women in the individual age groups.

The data shows that a group that is the most affected, concerning pay differences, is the age group 65 and more. This time, we can see that on average, the lower the age, the lower the pay difference, as the least differences can be seen in the age group of 15-24 years of age, where the differences are at 14,26%.



Chart number 37: Differences in earnings between men and women by age, 2014

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

However, the chart shows the percentage difference counted from the male's average income in the particular age group. For precise detail, showing the levels of income at each age group separately for men and women, there is the chart number 38.

Chart number 38: Gender wage difference by age, 2014



Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

The chart number 38 shows that despite the percentage difference, counted from the men's average income, the raw difference in earnings between men and women is the greatest in the age group of 35-45 all the way to 55-64, when starting to descend. The chart also shows an interesting thing and that is that women on average gain the peak in their salaries at the age between 30-34 and then it start descending, while for men, the average income rises up to the age of 35-44, which is a whole age group later. The average incomes of men are also higher in all of the age groups and the two lines follow similar pattern, as with the age of 55-64 and more starts to descent rapidly.

As mentioned in the chapter number 1.6., age is also an influential factor when speaking about the wage differences between men and women, as women follow a different life-cycle due to marriage and maternity. According to the National Statistical Institute of Chile, the average age of marriage for the year 2013 was 35,1 for men and 32,3 for women (INE, 2015). This could correspond with the explanation that marriage and childbearing affects negatively the evolution of average income for women, as the chart number 38 shows, 30-34 is the age group when the average salaries of women start to decrease.

# 3.3.5. Average salary by the level of education

Level of education is another attribute that may have an immense impact on wage distribution and on the wage difference between men and women. For years, it was generally assumed that solving the problem of education equality could help solve the problem of gender pay gap (Pettit, Hook, 2009, 144).

However, even though education gradually helps to increase average wage of both sexes in Chile, as can be seen in the chart number 40, the differences between men and women increase alongside the increasing level of education. First of all, in the following chart you can see the distribution of education among men and women in Chile.

From the chart number 39, we can see that about 45% of the population reached secondary education. There are over 1,9 million men and 1,4 million women.

Concerning the university education, it is the second most frequently reached education with over 19% of the population in the Chilean labor market.



Chart number 39: Distribution of the level of education reached, 2014

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

There are over 780 thousand of university educated men and more than 680 thousand educated women. In case of the education gap, we can see that the secondary education leaves wider gap, as there are nearly 500 thousand more educated men, while when looking at university education, the gap between men and women leaves us with "only" nearly 100 thousand difference.

What remains interesting is the fact, that when looking at the results for people without education, there are more uneducated men than women. There are over 34 thousands of uneducated men and over 21 thousands of uneducated women. The proceeding chart number 40 shows the wage distribution between men and women alongside the education.

There are actually two trends how the wages develop, while both of them have increasing tendency. Firstly, there is an obvious increase in wages as the education level rises. This is undoubtedly a positive thing and we can see the rising trend in all the levels of education, with slight exception of preschool education, where the average wage is slightly higher for women, as it reaches more than 268 thousand Chilean Pesos.



Chart number 40: Difference in wage distribution by education, 2014

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

However, as according to the data from the INE (2015), there are only around 3 103 women which fall into this group. The following group, therefore primary education nivel 1, includes more than 268 103 women, which means there could be some deviations or limitations that affect the final number.

Secondly, there is also an increasing trend when looking at wage differences between the two sexes. Therefore, despite the general assumption that equal education helps reducing the wage gap, the disparities in income between men and women grow even larger with an increasing education. We can see that at the first four levels, the disparity remains almost constant, however as reaching technical education, disparities start to grow larger and the tendency increases with each higher level of education. Generally, men are able to reach higher average income with the higher level of education. This goes to show that even with higher level of education, women still either choose to work in those types of occupations that offer lower incomes or, despite of the choice, they face lower average earnings. This is no surprise, as women faced lower levels of average income in basically all types of occupations in Chile.

# 3.4. Results of the Composite Indicator

As there have been described the necessary units, which are the 15 Chilean regions and the country's average, and the variables, which are listed in the previous chapters, it is now possible to proceed towards the creation of the composite indicator.

The final list of regions shows the 15 regions of Chile in the descending order concerning the differences between men and women in the labor market, based on the five variables that are mentioned in the chapter number 3.3. In the ranking, there was added the Chilean average, so that the results are easier to compare in the country's context. Therefore, the final list of regions shows the region with the least differences in the variables in the first place and the region with the largest differences in the last 15<sup>th</sup> or 16<sup>th</sup> place, including the country's average.

	Table	number	3:	Results	of	the	com	posite	indicator
--	-------	--------	----	---------	----	-----	-----	--------	-----------

Ranking	Regions					
1	Región del Libertador Gral. Bernardo O'Higgins					
2	Región del Biobío					
3	Región de Aysén del Gral. Carlos Ibáñez del Campo					
4	Región de Atacama					
5	Región de La Araucanía					
6	Región de Valparaíso					
	Average					
7	Región de Los Ríos					
8	Región de Tarapacá					
9	Región de Los Lagos					
10	Región de Magallanes y Antártica Chilena					
11	Región del Maule					

12	Región de Coquimbo		
13	Región Metropolitana		
14	Región de Arica y Parinacota		
15	Región de Antofagasta		

Source: Own elaboration based on the Instituto Nacional de Estadísticas, Chile, NESI, cuadros, 2015

Consequently, each of the regions is further described with the basic description of the occupational structure of both sexes. Regions are ordered in relevance to the results in the table number 3.

- 1. The results show that in the first place, there is the O'Higgins Region. When looking back into region description, this region was specific for the relatively high percentage of both sexes employed in agriculture. Unlike in the other regions, the third most common type of employment for women were not households with domestic service, but it was agriculture, which for men is even the most frequent type of occupation. It shows that this time, women were able to engage quite frequently into the most important economic industry of the region, as agriculture represents 21% of the country's GDP in agriculture.
- 2. An interesting result shows the Bío-Bío Region, which stands in the second place. It is the second largest Chilean region in population and was characterized by the lowest employment rate for both sexes, together with the highest rate of unemployment for both men and women. This region is an important economic contributor especially due to its manufacturing industry, which employs large percentage of women and the vast majority of men in the region. Again, women were able to reach relatively high representation in the most important economic industry for this region.
- 3. When looking at the third place, which is the Aysén Region, as in case of the O'Higgins Region, among the top three types of employment, there are not private households with domestic service, but it stands in the fifth place. In the first place, there is commerce, which is common at majority of the

regions. However, in the second place, there is public administration and in the third place, there is teaching. Private households with domestic service stand in the fifth place. Public administration is also the most frequent type of employment for men.

- 4. The fourth place in the ranking is the Región de Atacama, where the top three occupations represented by women are commerce, teaching and public administration, where the average income for a woman is 794 590 CLP. For males occupations, there is mining in the first position with an average income for males of 766 304 CLP, followed by commerce and transport, storage and communications. This time, even though mining is the key industry in this region, which is mostly represented by men, this region still shows relatively good results in the ranking. This could be attributed to various external factors, however, the average income for a miner in this region is still not the highest one, in terms of other types of occupations. Tourism is another important type of employment, which employs 8% of all the women in the Atacama region. Among the top six types of the most frequent female occupations, there are not even the households with domestic service.
- 5. Región de La Araucanía was the fifth region in terms of differences between men and women based on the chosen variables. According to the Central Bank of Chile, by the year 2014 it was to poorest region in Chile in terms of GDP per capita. Women generate on average 23,3% less in average income than men. Among the top three occupations for women, there are traditionally commerce, teaching and households with domestic service and for males, there is agriculture, hunting and forestry, followed by commerce and construction. Men in agriculture earn on average 203 748 CLP, which is relatively low in terms of the male's most frequent occupations. Agriculture is the key industry for this region and women were able to represent this industry as it stands at the 4<sup>th</sup> place as the most common type of employment.
- 6. Región de Valparaíso is the last region in the ranking doing better than the Chilean Average. The composition of occupations at women is traditional, showing commerce at the top, followed by teaching and households with

domestic service. For males, it is commerce as well at the top, but followed by transport, storage and communications and construction. For this region, besides agriculture production, tourism is important, especially due to the city of Valparaíso. Up to 7% of women work in hotels and restaurants in this region. Mining is another important economic activity of this region, as 5,5% of men work in mining and generate average income of 746 154 CLP, which is of course higher than is the male and female average income in this region.

- 7. The Región de Los Ríos shows one of the biggest differences between males' and females' unemployment rate, as for males it is 3,8% and for females 6,1%. Households with domestic service are in the second place of the occupations frequency at females, as 17% of the women in this region work there. As this sector shows generally low wages, it can be one of the explanatory factors of why this region does relatively bad in terms of gender inequalities in the composite indicator.
- 8. Tarapacá Region is in the 8<sup>th</sup> place. The occupation analysis shows that among the top female occupations, there is again commerce in the first place, teaching in the second place, but the third position is represented by working in the hotels and restaurants and the fourth place is taken by social and health services. Men in this region are the most frequently working in the mining industry, as 16% of men work there. Mining industry might be one of the key contributors to the differences between men and women in the market, as it offers occupation mostly to men, giving them also higher wages.
- 9. Región de Los Lagos is in the 9<sup>th</sup> place. This region is typical in agricultural production. Agriculture is also the key type of employment for males, as 19% of the males work in this branch, however, agriculture is not even amongst the 6 top occupations at females. Occupations at females are those three traditional of commerce, teaching and households with domestic service. However, this region shows huge differences in employment and unemployment rates, as 71% of males are employed and only 3% unemployed, while this region employs only 46,2% of females, while the unemployment rate is 6,1%.

- 10. Región de Magallanes y Antártica Chilena is in the 10<sup>th</sup> place. Among the key economic activities of the region, there is mining, together with livestock breeding. However, among the top male's occupations, there is commerce, public administration and construction, while for females there is also commerce, teaching and households with domestic service. Males in this region gain an average income of 695 129 CLP, which is the second highest average income in Chile for males, after the Antofagasta region. On the other hand, women reach an average income of 552 184 CLP, which is the highest average income for women in Chile.
- 11. Región del Maule is in the 11<sup>th</sup> place and it is the 4<sup>th</sup> largest region in population in Chile. Among the key economic activities of this region, there is agriculture, together with wine industry. Majority of males are employed in agriculture, followed by commerce and construction, while among the top three females' occupations, there is commerce, teaching and also agriculture. The results for this region are rather interesting, as women employed in agriculture generate even large average income of 278 713 CLP, than men with 261 691 CLP.
- 12. Región de Coquimbo was in the fifth place in the list. The occupational structure for females was rather traditional, as in the first place there is commerce, teaching is second and households with domestic service are third. Male's structure of the top three occupations is with mining in the first position, followed by manufacturing industry and construction. However, surprisingly among the top six female occupations, there is also real estate, renting and business activities, which gives an average income for women of 614 702 CLP.
- 13. Región de Arica y Parinacotais in the third worst place concerning differences between men and women in the composite indicator. From the region's analysis, the region shows one of the three smallest average salaries for women and fourth smallest average salary for men. The structure in occupations for females is with commerce in the first place, followed by teaching and public administration and for men with transport, storage and communications, commerce and manufacturing industry. This region is also

an important producer to the country's GDP in terms of the mining industry and transport, as it is an important point for international trade with the bordering countries.

- 14. Región Metropolitana is the largest Chilean region. In the composite indicator ranking it ended in the 14<sup>th</sup> place, therefore in the second worst place. While the structure of male occupations is commerce, manufacturing industry and construction, which is rather traditional for men, at women, working at households with domestic service represents the second most frequent place, as 14% of the women in this region work there, which represents total number of 200 502 women. However, the average salary of women in households with domestic service is 223 071 CLP, which is higher than the Chilean average for this type of occupation, which is 180 943 CLP. The average income of a woman in this region is the third largest in Chile and for men, the second highest. Concerning the fact that the Metropolitan region is the largest region in Chile, there is also place for large differences between people in general. The fact that this region is the second worst in the ranking can be attributed to various unexplained types of gender inequalities.
- 15. Región de Antofagasta ended up being the worst region in terms of inequalities in Chile based on the counting of the composite indicator. The region is specific for its mining industry, which employs 28% of the men and only 4,5% of women. Men in the mining sector earn on average 1 109 984 CLP, which is the highest average income in the top position of occupations in all the regions in Chile. The occupation structure for females in this region is commerce, teaching and households with domestic service, which is the typical structure in terms of the Chilean average.

Furthermore, if we compare the first O'Higgins region with the last Antofagasta region, there are differences in both male's and female's structures of occupations. While the Antofagasta region shows rather traditional composition of female's occupations, the O'Higgins regions shows certain level of deviation from the Chilean average, as third most common type of employment for women is agriculture, hunting and forestry. All of the three most common types of employments at women show an

average income higher than 200 CLP. The Antofagasta region is traditional in mining, which is one of the major influential factors that affect the differences between men and women.

Generally, there exist vast differences between men and women in all the Chilean regions. The fact that some regions show better results and some worse can be ascribed to the region's economic activity, as is also obvious from the results. Each of the Chilean regions can be characterize by different attributes, which are shown in the structure of occupations of both men and women. There are two basic patterns that can be seen in the results. Firstly, those regions where women were able to contribute to the generally most important economic industry within a region ended up being at better positions in the final ranking. Those were regions such as the first O'Higgis Region, Bío-Bío or the Region de la Araucanía. And secondly, those regions where mining industry plays a major role in the region's economy were often placed in the worse position, as the key industry did employ mostly men. Above it all, the fact that women are generally frequently employed in the households with domestic service might also have the effect on the average results, as this is one of the occupations with the lowest average income. Regions which have shown the employment of women in this type of occupation more frequently also often ended up being in the worse position in the ranking.

#### 4. Discussion of the possible solutions of the problem

Before going to final conclusions, there are few important things that are worth mentioning. Firstly, from the historical perspective, women entered the labor market much later than men. The major boom in the involvement of women entering the labor market started about fifty years ago and it is a trend that has been happening all over the world and the two main factors that contributed to the increase were undoubtedly industrialization and globalization (O'Brien, 2009, 481).

Secondly, in spite of the fact that there are undoubtedly aspects of the labor market that negatively affect the situation of women in the working place, there are major differences when speaking about the choice of education and further sector of employment. Across the OECD countries, women were much more frequently entering those fields of studies such as social sciences, humanities and education, while men were more frequently represented in such fields as engineering or technical computing related studies, which follow to the higher paid types of employments (OECD, 2013, 294-295). Generally speaking, women are frequently underrepresented not only in those types of employments that generate higher income, they are also vastly underrepresented in those fields of studies that are necessary for the higher paying job. This tells us that the problem of gender inequalities in the labor market is up to certain amount a problem of a choice, which is rather structural issue of the society.

The provision of the necessary steps towards decreasing gender inequalities differs across countries, however, these are mostly the legal regulations that a country enforces it its policies to deal with the problem. The modern states are currently mostly following towards creation of so called "work-life-balance policies", which include creation of childcare policies, economic help to single mothers or a paternity leave (Stange, Oyster, Sloan, 2011, 492-493).

However, as each country faces different levels of gender inequality in the labor market, each country also needs to pursue different steps towards promoting equality between men and women. Chile has been aware of the fact that it belongs to the less equal countries concerning women in the labor market and recently has been following several key steps that are unusual in the other countries of the world. One of the key steps towards the promotion of equality between men and women was the announcement of the Ministry for Women and Gender Equality, which is supposed to come into force in 2016, as was mentioned in the chapter Gender inequalities in Chile.

The problem is not easy and so there is no simple solution. It is often believed that gender segregation is one of the key causes of the problem and solving it could generously help to decrease gender inequalities in the labor market. This thesis also found that one of the key problems that affects the final role of women in the labor market in Chile is horizontal segregation, which means women more frequently choose a similar type of employment among all of the 15 Chilean regions, especially occupation such as households with domestic service, which can be ascribed as the "female" type of employment. However, is it even possible to completely reduce gender segregation and promote equal representation of men and women in each type of employment? Anker suggests an interesting view on the problem, when giving an example of natural inborn differences between men and women, such as physical strength (Anker, 1998, 8). When taking an example of the key industry in Chile, which is mining, should there be an equal representation of men and women in this type of employment? It is more than possible that there are women of the same or even greater physical strength than men, however, there should always be the possibility of the choice and it is also more than possible that mining is simply not that kind of job women would pursue. Both men and women should have free will in terms of deciding what to do and in which type of employment they would like to work.

It was also found that one of the causes of gender inequality in the market was the fact that women will always try to combine their working abilities with motherhood and childbearing, which possibly negatively affects the choice of occupation, time spent at work and also the height of the income (OECD, 2012, 166; Poppick, 2015). Can also this problem be solved? It is again the biological nature of women as caretakers and child bearers and mostly mothers. This is therefore another problem that might not have the correct solution. Implementation of the "work-life-balance" policies might and helps to tackle the problem, however, is it even possible to eradicate such problem completely? Possibly not, the solution should be put towards equal opportunities for both men and women however, with the regard of the free will of a choice. This might conclude to the fact that there always might be certain differences between men and women in the labor market, as there are in society and also in biology and it is up to each individual human being to decide in which type of employment he or she would like to work but of course, the promotion of equal possibilities is essential.

## 5. Conclusion

This thesis dealt with the issue of women in the working place in Chile. It tried to discuss the topic in several key areas, such as gender equality, gender equality in the labor market, gender segregation, the effects of education on equality and furthermore the effect of age as one of the key variables. It further analyzed the 15 Chilean regions based on natural geographical and economic aspects of each region and also by the frequency of men and women among the key types of occupations. The last and the most important part of the thesis was the creation of a composite indicator, which ranked the Chilean regions based on inequalities in the labor market through five key variables.

The thesis was divided into three parts. The first part was the theoretical part, which gave the introduction to the topic. It explained several key aspects of the issue and focused on the key possible causes of gender inequalities in the labor market. It concluded that among the key aspects of gender inequalities in the labor market, there is the gender wage gap, which can be further analyzed and explained by several other causes, which are mostly gender segregation, equity in education and the representation of women in the labor market. It was also found that Chile can be specified as country, where women have the major role in terms of home care and family responsibilities, which can have a negative impact on the situation of women in the labor market, causing further difficulties as women have less time for self-development in terms of the occupation.

The second part focused on the analysis of the regions. Firstly, it is important to mention that there exist natural differences between the Chilean region and each region has a different comparative advantage at different sector of production, which is one of the key causes of the differences between regions in terms of occupational structure. However, the thesis found that not only there are differences between regions, there are relatively high differences, concerning occupational structure, between men and women. Among the top three types of females' occupations, there are commerce, teaching and households with domestic service respectively, while all of these employments can be characterized by lower average wage. The occupational structure of men on the other hand often differs among the regions, as men were more frequently occupied in those types of employments, which were important in terms of the region's economy. Antofagasta can be put as an example, as mining is the key industry for this region. From the total number of occupations, mining industry was at the top as the most frequent type of employment for men, with 28% male representation. On the contrary, there were only around 4,5% of women employed in the mining industry. The Antofagasta region ended as the worst region concerning inequalities between men and women in the labor market. Secondly, households with domestic service was on average the third most common type of employment for Chilean women. This type of employment however generates the lowest average income in Chile, with only 180 943 CLP. Undoubtedly, gender segregation in the labor market is evident in the Chilean labor market, as men are more frequently employed in higher paid types of occupations and women at the lower paid types of occupations, however, even within one single type of occupation women generally earned lower wages in almost all of the occupations, in contrast with men. The thesis therefore found that there exists an obvious pattern concerning horizontal segregation, as men more often work in the higher paying jobs. However, regardless of the horizontal segregation, there exist differences between men and women in the labor market even within the same type of occupation, as women generally earn lower income than men in almost all types of occupations, in all of the Chilean regions. This result could be ascribed to the existence of certain level of vertical segregation in the labor market.

The third part discussed the creation of the composite indicator, together with the five variables. This part discussed the topic of employment and unemployment rate, when found out that women are subject to lower employment rate then man and also to higher unemployment rate in all of the 15 Chilean regions. Women are represented in the labor market only by 44% and the average employment rate is at 45,1% and unemployment rate at 6,9%. In contrast, the employment rate for men is 67,3% and the unemployment rate is 6%. The average salary of men and women also differed in all of the regions, however, on average women earn lower income by 29,7%. Furthermore, when analyzing the average income and the wage differences between men and women on the basis of age, the differences of percent tent to increase with eage. It also found

that for both, men and women, there is a point from which the evolution of the average salary starts to decrease. For men, it is the age from 35-44 and for women, from 30-34. The result can be explained by various factors, such as the age of marriage or childbearing, as these result correspond with the average age of marriage for Chilean men and women.

When analyzing the effects of education on average income and the gender wage differences, two patterns were found. Firstly, average income tends to increase with the rising level of education for both men and women and secondly, so do rise the differences in income between men and women. Promotion of higher education therefore cannot be understood as the prevention of the disparities in gender pay gap.

And lastly, the thesis introduced the results of the composite indicator, which was counted by the method of Z-Scores. The ranking of the regions was introduced and further explained based on the results of the counting from the second part of the thesis and also by the results given by the variables. The region which presents the least differences between men and women in Chile, based on the five chosen variables, is the Región del Libertador Gral. Bernardo O'Higgins and the region with the highest difference between men and women was found to be the Región de Antofagasta. Both of these regions differ not only in the occupational structure, but also in the economic importance of different sectors of production.

This thesis tried to give the overall picture on the problem of the situation of women in the workplace in Chile, however, what needs to be beard in mind is the fact that despite of several countable aspects of gender inequalities, there are several other causes that would require further quantitative analysis in the field, analyzing aspects of discrimination of women, social factors within the country and the regions and the overall view on women in the society.

## References

- Adema, W., Ali, N., Frey, V., Kim, H., Lunati, M., Piacentini, M. and Queisser, M. (2014). *Enhancing Women's Economic Empowerment through Entrepreneurship and Business Leadership in OECD Countries*. Paris: OECD Publishing, pp.5-12.
- Albanesi, S. and Şahin, A. (2013). *The Gender Unemployment Gap.* 1st ed. [ebook] New York: Federal Reserve Bank of New York, pp.1-2. Available at: https://www.newyorkfed.org/medialibrary/media/research/staff\_reports/sr613.pd f [Accessed 18 May 2016].
- 3. Alvarado, G. and Moya, J. (2008). *DIVISIÓN POLÍTICO-ADMINISTRATIVA Y CENSAL*, 2007. Santiago, Chile: Instituto Nacional de Estadísticas, pp.9-338.
- 4. Andersen, M. and Taylor, H. (2006). *Sociology*. 4th ed. Belmont, CA: Thomson Wadsworth, p.318.
- Anker, R. (1998). *Gender and jobs*. Geneva: International Labour Office, pp.3-30.
- Arnold, R. (2008). *Macroeconomics*. 9th ed. Mason, Ohio: South-Western Cengage Learning, p.125.
- Bettio, F. and Verashchagina, A. (2009). *Gender segregation in the labour* market. Luxemburg: European Commission's Expert Group on Gender and Employment, pp.30-42.
- 8. Blossfeld, H., Skopek, J., Triventi, M. and Buchholz, S. (2015). *Gender*, *education and employment*. Northampton, MA: Edward Elgar Publishing, p.152.
- 9. Brückner, H. (2004). *Gender inequality in the life course*. New York: Aldine de Gruyter, pp.11-15.
- Bruyère, S. and Barrington, L. (2012). *Employment and work*. Thousand Oaks: SAGE Publications, pp.7-8.
- 11. CIA, (2016). *The World Factbook*. [online] Cia.gov. Available at: https://www.cia.gov/library/publications/the-world-factbook/geos/ci.html [Accessed 18 May 2016].
- 12. Coate, S. and Loury, G. (1992). *Will affirmative action policies eliminate negative stereotypes?*. Boston, Mass.: Dept. of Economics, Boston University.
- 13. Coate, S. and Loury, G. (2016). Will Affirmative-Action Policies Eliminate Negative Stereotypes?. *The American Economic Review*, [online] (83), p.1227. Available at: http://inequality.stanford.edu/\_media/pdf/Reference%20Media/Coate%20and%2 0Loury\_1993\_Discrimination%20and%20Prejudice.pdf [Accessed 18 May 2016].
- 14. Dresdner, J. (2009). Bío Bío 's Regional Steering Committee. OECD Reviews of Higher Education in Regional and City Development. [online] Concepción: Universidad de Concepción, p.8. Available at: http://www.oecd.org/education/skills-beyond-school/43694606.pdf [Accessed 16 May 2016].
- 15. Elson, D. and Pearson, R. (1981). 'Nimble Fingers Make Cheap Workers': An Analysis of Women's Employment in Third World Export Manufacturing. *Feminist Review*, [online] (7), pp.87-107. Available at: http://www.palgrave-journals.com/fr/journal/v7/n1/full/fr19816a.html [Accessed 18 May 2016].
- Eurostat, (2008). *The life of women and men in Europe*. Luxembourg: Office for Official Publications of the European Communities, p.34.
- Eurostat, (2016). Gender pay gap statistics Statistics Explained. [online] Eurostat Statistics. Available at: http://ec.europa.eu/eurostat/statisticsexplained/index.php/Gender\_pay\_gap\_statistics#Data\_sources\_and\_availability [Accessed 18 May 2016].
- Fiske, E. (2012). World atlas of gender equality in education. Paris, France: UNESCO Publishing, p.58.
- Foubert, P. (2010). *The gender pay gap in Europe from a legal perspective*.
   Luxembourg: Publications Office of the European Union, pp.1-9.
- 20. FRA, (2011). *Handbook on European non-discrimination law*. Luxembourg: Publications Office of the European Union, pp.21-22.
- 21. Gobierno de Chile, (2015). President announces creation of Women and Gender Equality Ministry. [online] Gobierno de Chile. Available at: http://www.gob.cl/2015/03/08/president-announces-creation-of-women-andgender-equality-ministry/ [Accessed 15 May 2016].

- 22. Gobierno de Chile, (2016). *President Gobierno de Chile*. [online] Gobierno de Chile. Available at: http://www.gob.cl/presidenta-2/ [Accessed 18 May 2016].
- 23. Gobierno Regional, (2016). *Región de Los Ríos*. [online] Goredelosrios.cl. Available at: http://www.goredelosrios.cl/?p=89 [Accessed 16 May 2016].
- 24. Google DATA, (2016). *City population-Google Public Data Explorer*. [online] Google.cz. Available at: https://www.google.cz/publicdata/explore?ds=z5567oe244g0ot\_&met\_y=popula tion&idim=city\_proper:006000:033290&hl=en&dl=en [Accessed 18 May 2016].
- 25. Guiso, L., Monte, F., Sapienza, P. and Zingales, L. (2008). Culture, Gender, and Math. 1st ed. [ebook] Sciencemag, pp.1-2. Available at: http://www.kellogg.northwestern.edu/faculty/sapienza/htm/science.pdf [Accessed 18 May 2016].
- 26. Gupta, G. (2004). *Macroeconomics*. 2nd ed. New Delhi: Tata McGraw-Hill, p.56.
- 27. ILO, (2003). *Key Indicators of the Labour Market (KILM)*. 3rd ed. Geneva: International Labour Office, pp.23-286.
- 28. INE, (2015). Instituto Nacional de Estadísticas. [online] Ine.cl. Available at: http://www.ine.cl/canales/chile\_estadistico/mercado\_del\_trabajo/nene/nesi/archi vos/resultados\_2014/nesi\_2014\_cuadros\_1-11.xlsx [Accessed 18 May 2016].
- 29. INE, (2015). Género y Empleo. 1st ed. [ebook] Santiago: Instituto Nacional de Estatisticas, pp.2-3. Available at: http://www.ine.cl/canales/chile\_estadistico/genero/pdf/enfoque\_genero\_empleo\_ 14\_05\_2015.pdf [Accessed 18 May 2016].
- 30. Iversen, T. and Rosenbluth, F. (2006). The Political Economy of Gender:
  Explaining Cross-National Variation in the Gender Division of Labor and the
  Gender Voting Gap. *Am J Political Science*, [online] 50(1), pp.1-19. Available at:

http://www.people.fas.harvard.edu/~iversen/PDFfiles/IversenRosenbluth2006.p df [Accessed 15 May 2016].

31. Janoski, T., Luke, D. and Oliver, C. (2014). *The causes of structural unemployment*. Cambridge: Polity Press.

- 32. Kabeer, N., Stark, A. and Magnus, E. (2008). *Global perspectives on gender equality*. New York: Routledge, p.222.
- 33. Lagos, G. (2010). Mining and development in the region of Antofagasta. [online] Santiago: Elsevier, p.2. Available at: https://www.researchgate.net/publication/227419385\_Mining\_and\_development \_in\_the\_region\_of\_Antofagasta\_Resour\_Policy [Accessed 16 May 2016].
- Lara, C. (2009). OECD territorial reviews: Chile. Paris: OECD Publications Service, pp.42-51.
- Larose, D. and Larose, C. (2015). *Data mining and predictive analytics*. 2nd ed. New Jersey: John Wiley & Sons, p.31.
- López, L. (2015). Mujeres en Chile y mercado del trabajo: Participación laboral femenina y brechas salariales. Santiago: Instituto Nacional de Estadísticas, pp.12-30.
- Maccoby, E. and Jacklin, C. (1974). *The psychology of sex differences*. Stanford, Calif.: Stanford University Press, pp.349-352.
- Maione, V. (2003). *Gender equality in higher education*. Milano: Franco Angeli, p.240.
- Mellanson, R. (1996). *The Pay Gap Causes, Consequences and Actions*. Fredericton: The New Brunswick Advisory Council on the Status of Women, pp.6-9.
- 40. Mincer, J. (1974). *Schooling, experience, and earnings*. New York: National Bureau of Economic Research.
- 41. Mincer, J. and Polachek, S. (1974). Family Investments in Human Capital: Earnings of Women. *Journal of Political Economy*, [online] 82(2, Part 2), pp.S76-S108. Available at: http://econpapers.repec.org/article/ucpjpolec/v\_3a82\_3ay\_3a1974\_3ai\_3a2\_3ap \_3as76-s108.htm [Accessed 15 May 2016].
- 42. Mirowsky, J. and Ross, C. (2003). *Education, social status, and health*. New York: A. de Gruyter, pp.1-5.
- 43. Moghadam, V. (2007). *From patriarchy to empowerment*. Syracuse, N.Y.: Syracuse University Press, p.170.

- 44. Morton, M., Klugman, J., Hanmer, L. and Singer, D. (2014). Gender at Work : A Companion to the World Development Report on Jobs. Washington, DC: The World Bank, pp.1-10.
- 45. NWLC, (2016). FAQ About the Wage Gap NWLC. [online] National Women's Law Center. Available at: http://nwlc.org/resources/faq-about-wage-gap/
  [Accessed 18 May 2016].
- O'Brien, J. (2009). *Encyclopedia of gender and society*. Thousand Oaks: SAGE Publications, Inc., pp.481-482.
- 47. OECD, (2001). Society at a Glance 2001. Paris: OECD Publishing, p.68.
- 48. OECD, (2012). *Closing the Gender Gap: Act Now*. Paris: OECD Publishing, pp.165-169.
- 49. OECD, (2013). *Education at a Glance 2013*. Paris: OECD Publishing, pp.294-295.
- OECD, (2014). Gender wage gap OECD. [online] OECD. Available at: https://www.oecd.org/gender/data/genderwagegap.htm [Accessed 18 May 2016].
- 51. OECD, (2014). OECD rural policy reviews. Paris: OECD Publishing, pp.9-13.
- OECD, (2015). The ABC of Gender Equality in Education Aptitude, Behaviour, Confidenc. OECD Publishing, p.81.
- 53. OECD, (2016). Employment Employment rate OECD Data. [online] OECD Data. Available at: https://data.oecd.org/emp/employment-rate.htm [Accessed 17 May 2016].
- 54. OECD, (2016). OECD iLibrary: Statistics /OECD Factbook /2013 /. [online] OECD iLibrary. Available at: http://www.oecd-ilibrary.org/sites/factbook-2013en/13/02/02/index.html?itemId=/content/chapter/factbook-2013-106-en [Accessed 18 May 2016].
- 55. Pettit, B. and Hook, J. (2009). Gendered Tradeoffs: Family, Social Policy, and Economic Inequality in Twenty-One Countries. New York: Russell Sage Foundation, pp.143-144.
- 56. Poppick, S. (2015). This Is the Age When Women Start Falling Behind in Pay. [online] Time Inc. Available at: http://time.com/money/4098024/pay-gapwomen-age-wages-earnings/ [Accessed 15 May 2016].

- 57. Redmount, E. (2015). The Economics of the Family: How the Household Affects Markets and Economic Growth [2 volumes]. Santa Barbara, CA: Praeger, p.126.
- 58. Reich, M., Gordon, D. and Edwards, R. (1973). Dual Labor Markets: A Theory of Labor Market Segmentation. 1st ed. [ebook] Lincoln: Economics Department Faculty Publications, pp.359-364. Available at: http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1002&context=econf acpub [Accessed 15 May 2016].
- 59. Reskin, B. and Bielby, D. (2005). A Sociological Perspective on Gender and Career Outcomes. *Journal of Economic Perspectives*, [online] 19(1), pp.71-86. Available at:

http://www.csun.edu/~snk1966/B.F.%20Reskin%20and%20D.D.%20Bielby%2 0--

%20A%20Sociological%20Perspective%20on%20Gender%20and%20Career% 20Outcomes.pdf [Accessed 18 May 2016].

- 60. Revenga, A. and Shetty, S. (2011). *Gender equality and development*.Washington. DC: The World Bank, pp.198-202.
- Rives, J. and Yousefi, M. (1997). *Economic dimensions of gender inequality*. Westport, Conn.: Praeger, p.20.
- 62. Rubery, J. and Grimshaw, D. (2007). *Undervaluing women's work*. Manchester: Equal Opportunities Commission.
- Stange, M., Oyster, C. and Sloan, J. (2011). *Encyclopedia of women in today's world*. Thousand Oaks: SAGE Publications, Inc., pp.492-493.
- Summers, L. (2005). *Remarks at NBER Conference on Diversifying the Science* & Engineering Workforce. [online] Harvard.edu. Available at: http://www.harvard.edu/president/speeches/summers\_2005/nber.php [Accessed 18 May 2016].
- Tuleja, P., Nezval, P. and Majerová, I. (2011). Základy mikroekonomie. 2nd ed. Brno: CP Books, p.147.
- 66. Tyrowicz, J., van der Velde, L. and van Staveren, I. (2015). *Differences in the Estimates of Gender Wage Gap Over The Life Cycle*. [online] Warsaw: University of Warsaw, pp.1-23. Available at:

http://www.wne.uw.edu.pl/files/2314/3861/6298/WNE\_WP177.pdf [Accessed 15 May 2016].

- 67. UN, (2016). The Gender Equality "Social Watch": Following Bachelet's Government. EVALUATION REPORT. [online] United Nations. Available at: http://www.un.org/democracyfund/sites/www.un.org.democracyfund/files/UDF-RLC-07-198\_Evaluation%20Report.pdf [Accessed 18 May 2016].
- UNESCO, (2014). Women in higher education. [online] UNESCO institute for statistics. Available at: http://www.uis.unesco.org/Education/Pages/womenhigher-education.aspx [Accessed 17 May 2016].
- 69. Van Dongen, W. (2009). *Towards a democratic division of labour in Europe?*. Bristol: The Policy Press, p.222.
- WEF, (2016). *Global Gender Gap Report 2015*. [online] World Economic Forum. Available at: http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=CHL [Accessed 16 May 2016].
- 71. World Bank, (2016). *GDP ranking | Data*. [online] Data.worldbank.org.
  Available at: http://databank.worldbank.org/data/download/GDP.xls [Accessed 16 May 2016].
- 72. World Bank, (2016). *Chile*. [online] Worldbank.org. Available at: http://www.worldbank.org/en/country/chile [Accessed 16 May 2016].
- 73. World Bank, (2016). Labor force participation rate, female. [online] Data.worldbank.org. Available at: http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS [Accessed 17 May 2016].
- 74. World Bank, (2016). Labor force participation rate, total (% of total population ages 15+) (modeled ILO estimate) / Data / Map. [online] The World Bank. Available at: http://data.worldbank.org/indicator/SL.TLF.CACT.ZS/countries?display=map

[Accessed 17 May 2016].

## List of pictures

Picture number 1: Female labor market participation 2010 - 16

List of tables

Table number 1: List of Regions in Chile by Population, 2014	38
Table number 2: List of occupations	41
Table number 3: Results of the composite indicator	97

## List of charts

Chart number 1: Gender pay gap in OECD countries
Chart number 2: Female occupations frequency in the Arica y Parinacota Region43
Chart number 3: Male occupations frequency in the Arica y Parinacota Region44
Chart number 4: Female occupations frequency in the Tarapacá Region46
Chart number 5: Male occupations frequency in the Tarapacá Region
Chart number 6: Female occupations frequency in the Antofagasta Region49
Chart number 7: Male occupations frequency in the Antofagasta region50
Chart number 8: Female occupations frequency in the Atacama Region51
Chart number 9: Male occupations frequency in the Atacama Region
Chart number 10: Female occupations frequency in the Coquimbo Region54
Chart number 11: Male occupations frequency in the Coquimbo Region55
Chart number 12: Female occupations in the Valparaiso Region
Chart number 13: Male occupations frequency in the Valparaiso Region

Chart number 15: Male occupations frequency in the Metropolitan Region ......60 Chart number 20: Female occupations frequency in the Bío-Bío Region ......67 Chart number 21: Male occupations frequency in the Bío-Bío Region ......67 Chart number 24: Female occupations frequency in the Region de los Ríos ......71 Chart number 25: Male occupations frequency in the Region de los Ríos ......72 Chart number 26: Female occupations frequency in the Region de los Lagos ......73 Chart number 27: Male occupations frequency in the Region de los Lagos ......74 Chart number 29: Male occupations frequency in the Aysén Region ......77 

Chart number 34: Difference in unemployment rates between men and women8	8
Chart number 35: Differences in earnings between men and women	0
Chart number 36: Age composition of the Chilean population9	2
Chart number 37: Differences in earnings between men and women by age	3
Chart number 38: Gender wage difference by age9	3
Chart number 39: Distribution of the level of education reached99	5
Chart number 40: Difference in wage distribution by education90	5

## Attachments

## Attachment number 1: Región de Arica y Paricanota

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	31 380	307 231	38 090	418 991
Agriculture, hunting and forestry	2 237	125 077	4 004	257 800
Fishing	-	-	508	315 700
Mining and quarrying	1 146	438 455	3 527	697 411
Manufacturing industry	1 580	164 762	4 393	426 101
Electricity, gas and water	103	197 139	300	295 596
Construction	87	221 973	4 007	279 602
Commerce	8 463	206 769	4 398	328 801
Hotels and restaurants	2 664	222 245	1 820	367 340
Transport, storage and communications	963	320 696	6 302	378 698
Financial intermediation	351	923 799	-	-
Real estate, renting and business activities	1 066	413 412	2 250	393 952
Public administration	2 755	614 109	3 295	660 578
Teaching	4 392	448 263	1 398	578 247
Social and Health Services	2 249	471 349	734	623 655
Other community, social and personal services	907	143 434	846	335 340
Private households with domestic service	2 359	120 700	272	288 075
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 2: Región de Tarapacá

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	58 126	398 375	85 754	616 245
Agriculture, hunting and forestry	1 169	72 005	4 131	206 979
Fishing	298	201 618	1 355	746 764
Mining and quarrying	653	612 518	13 843	772 085
Manufacturing industry	3 261	263 355	6 079	640 849
Electricity, gas and water	360	286 242	739	692 980
Construction	1 453	1 146 301	10 064	411 688
Commerce	16 164	275 049	11 622	473 309
Hotels and restaurants	4 970	298 046	2 364	746 322
Transport, storage and communications	2 306	450 023	11 001	618 772
Financial intermediation	1 300	760 169	999	1 027 474
Real estate, renting and business activities	2 313	437 759	5 486	585 667
Public administration	3 475	620 880	10 217	726 228
Teaching	10 507	479 826	4 492	631 210
Social and Health Services	4 609	577 878	1 734	1 406 359
Other community, social and personal services	1 369	357 845	979	399 486
Private households with domestic service	3 918	169 854	648	528 973
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 3: Región de Antofagasta

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	105 844	437 263	152 154	762 642
Agriculture, hunting and forestry	-	-	1 537	402 321
Fishing	-	-	1 398	315 138
Mining and quarrying	4 828	987 087	42 524	1 109 984
Manufacturing industry	4 896	461 079	14 333	626 650
Electricity, gas and water	946	669 431	3 213	745 113
Construction	1 495	457 549	12 004	680 399
Commerce	27 866	280 381	21 315	484 439
Hotels and restaurants	5 700	385 422	2 924	395 769
Transport, storage and communications	2 520	359 955	22 176	491 170
Financial intermediation	3 076	511 183	1 250	1 930 924
Real estate, renting and business activities	7 160	462 942	6 952	1 004 568
Public administration	5 795	694 259	6 549	898 213
Teaching	18 435	590 003	6 698	870 613
Social and Health Services	9 036	495 389	4 901	637 268
Other community, social and personal services	3 762	290 787	3 698	375 691
Private households with domestic service	10 154	161 070	682	347 195
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 4: Región de Atacama

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	51 333	386 867	70 387	556 622
Agriculture, hunting and forestry	1 424	189 731	3 844	253 906
Fishing	-	-	1 960	319 086
Mining and quarrying	1 865	576 043	16 174	766 304
Manufacturing industry	3 634	207 555	6 891	515 410
Electricity, gas and water	-	-	1 925	748 907
Construction	643	417 700	6 584	412 146
Commerce	13 782	234 364	11 637	397 788
Hotels and restaurants	3 923	299 380	1 359	438 771
Transport, storage and communications	936	300 401	7 052	535 844
Financial intermediation	767	457 806	-	-
Real estate, renting and business activities	1 247	535 467	2 212	576 394
Public administration	5 167	794 590	4 219	952 695
Teaching	8 437	587 327	2 565	585 962
Social and Health Services	3 737	443 107	1 423	535 247
Other community, social and personal services	1 763	249 377	2 328	305 472
Private households with domestic service	3 546	135 546	-	-
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 5: Región de Coquimbo

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	138 720	324 731	176 371	480 783
Agriculture, hunting and forestry	9 216	185 449	25 464	249 090
Fishing	-	-	2 481	323 629
Mining and quarrying	2 100	609 213	26 807	656 821
Manufacturing industry	11 922	137 150	12 973	312 314
Electricity, gas and water	733	320 694	1 509	391 499
Construction	1 172	394 548	24 667	498 701
Commerce	34 689	231 712	25 249	400 049
Hotels and restaurants	7 129	257 152	4 366	439 992
Transport, storage and communications	2 807	371 004	16 068	352 803
Financial intermediation	1 503	472 580	1 649	775 166
Real estate, renting and business activities	9 145	645 487	8 016	629 711
Public administration	5 842	632 940	8 802	899 653
Teaching	23 343	449 217	6 358	573 889
Social and Health Services	7 388	499 560	4 446	1 181 889
Other community, social and personal services	6 602	247 372	4 499	334 510
Private households with domestic service	14 901	176 391	3 018	250 477
Extraterritorial organizations and bodies	-	-	_	-

Attachment number 6: Región de Valparaíso

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	326 763	399 484	441 160	549 286
Agriculture, hunting and forestry	11 157	268 626	45 041	366 036
Fishing	565	268 020	1 759	213 275
Mining and quarrying	2 763	411 276	30 168	746 154
Manufacturing industry	23 728	206 730	35 583	554 106
Electricity, gas and water	2 412	339 104	7 295	576 845
Construction	3 774	466 972	55 541	417 623
Commerce	73 918	238 498	69 380	443 189
Hotels and restaurants	21 960	461 558	16 177	344 187
Transport, storage and communications	11 250	392 574	56 603	505 923
Financial intermediation	9 029	625 567	3 798	670 363
Real estate, renting and business activities	17 333	498 692	28 061	760 306
Public administration	21 124	791 924	34 845	907 247
Teaching	48 047	595 219	21 738	647 254
Social and Health Services	28 014	614 307	10 413	1 255 320
Other community, social and personal services	12 188	346 419	13 669	367 613
Private households with domestic service	39 323	138 309	10 991	288 258
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 7: Región Metropolitana

				average salaries
BRANCH OF ACTIVITY	number of women	average salaries women	number of men	men
TOTAL	1 434 161	433 686	1 713 972	627 903
Agriculture, hunting and forestry	17 837	333 634	60 326	376 959
Fishing	-	-	-	-
Mining and quarrying	-	-	26 192	1 021 460
Manufacturing industry	128 036	351 713	278 539	513 308
Electricity, gas and water	3 385	363 119	13 344	904 239
Construction	18 885	540 191	234 204	568 628
Commerce	339 262	316 352	369 565	524 503
Hotels and restaurants	53 808	295 880	39 956	530 976
Transport, storage and communications	61 575	487 905	184 224	536 897
Financial intermediation	55 464	785 313	57 729	1 387 894
Real estate, renting and business activities	113 041	614 702	157 444	923 435
Public administration	67 529	750 637	79 415	805 916
Teaching	183 048	513 843	62 052	705 021
Social and Health Services	131 303	607 108	52 899	943 123
Other community, social and personal services	56 711	358 568	60 488	491 891
Private households with domestic service	200 502	223 071	36 404	295 617
Extraterritorial organizations and bodies	610	923 398	-	-

Attachment number 8: Región del Libertador Gral. Bernardo O'Higgins

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	153 210	306 575	221 253	418 502
Agriculture, hunting and forestry	19 439	262 421	58 900	304 590
Fishing	-	-	-	-
Mining and quarrying	1 650	701 619	14 027	701 087
Manufacturing industry	9 785	257 236	22 894	450 492
Electricity, gas and water	952	297 221	2 751	520 917
Construction	1 883	388 996	21 269	487 413
Commerce	34 265	224 822	31 076	328 965
Hotels and restaurants	9 042	234 433	3 305	261 718
Transport, storage and communications	3 920	251 067	20 904	380 979
Financial intermediation	3 870	561 143	1 693	469 966
Real estate, renting and business activities	4 778	398 304	8 006	719 431
Public administration	6 798	537 750	16 903	565 049
Teaching	25 738	378 844	6 337	505 171
Social and Health Services	8 654	575 278	3 634	493 017
Other community, social and personal services	4 297	288 648	6 484	293 181
Private households with domestic service	18 138	147 286	3 047	208 854
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 9: Región del Maule

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	174 220	282 100	246 772	382 373
Agriculture, hunting and forestry	20 526	278 713	70 692	261 691
Fishing	-	-	2 073	233 237
Mining and quarrying	-	-	6 326	720 455
Manufacturing industry	11 680	180 747	24 977	333 980
Electricity, gas and water	829	212 764	2 377	366 333
Construction	618	461 978	29 189	413 565
Commerce	40 088	242 228	43 271	361 905
Hotels and restaurants	8 242	229 056	4 126	283 357
Transport, storage and communications	3 800	170 302	17 015	400 143
Financial intermediation	1 632	540 313	1 409	1 422 792
Real estate, renting and business activities	10 066	318 530	12 698	489 177
Public administration	11 476	370 333	13 503	629 576
Teaching	25 751	372 988	9 232	477 665
Social and Health Services	13 740	490 968	3 545	683 176
Other community, social and personal services	5 477	231 394	3 894	454 715
Private households with domestic service	20 222	131 109	2 445	236 037
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 10: Región del Biobío

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	344 618	306 399	459 813	430 025
Agriculture, hunting and forestry	9 093	189 950	72 899	287 505
Fishing	990	124 195	3 441	346 656
Mining and quarrying	-	-	13 916	615 152
Manufacturing industry	28 006	231 238	76 306	463 892
Electricity, gas and water	2 215	378 941	8 322	544 802
Construction	3 773	361 239	48 737	334 296
Commerce	92 713	215 086	77 496	338 711
Hotels and restaurants	16 512	263 104	10 898	277 276
Transport, storage and communications	7 994	311 448	41 511	369 010
Financial intermediation	5 010	638 446	4 632	549 586
Real estate, renting and business activities	12 633	405 591	14 944	712 372
Public administration	20 865	574 699	32 388	626 931
Teaching	60 815	420 187	27 225	575 223
Social and Health Services	33 222	441 102	11 694	1 115 167
Other community, social and personal services	10 930	219 102	8 534	307 131
Private households with domestic service	39 600	131 961	6 871	202 052
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 11: Región de La Araucanía

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	182 958	297 869	234 977	387 103
Agriculture, hunting and forestry	19 495	82 775	61 446	203 748
Fishing	-	-	-	-
Mining and quarrying	-	-	428	483 906
Manufacturing industry	16 763	126 439	27 271	442 516
Electricity, gas and water	-	-	2 312	561 650
Construction	1 765	457 772	27 328	365 348
Commerce	31 656	238 439	38 997	301 346
Hotels and restaurants	9 269	235 887	6 690	353 706
Transport, storage and communications	4 344	439 497	19 139	391 594
Financial intermediation	4 106	711 118	2 577	647 945
Real estate, renting and business activities	3 997	579 668	10 617	660 841
Public administration	14 242	450 431	10 670	760 419
Teaching	40 736	428 887	13 159	668 030
Social and Health Services	11 760	478 106	5 245	881 147
Other community, social and personal services	3 858	208 637	6 061	389 346
Private households with domestic service	20 710	129 569	3 037	230 158
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 12: Región de los Ríos

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	68 133	308 693	90 426	390 653
Agriculture, hunting and forestry	4 054	136 130	19 841	257 148
Fishing	429	142 658	4 339	217 157
Mining and quarrying	-	-	741	503 510
Manufacturing industry	6 810	117 258	13 935	388 544
Electricity, gas and water	-	-	461	395 804
Construction	480	213 130	12 138	320 268
Commerce	13 538	206 925	9 003	418 810
Hotels and restaurants	4 413	244 025	1 668	267 093
Transport, storage and communications	1 112	476 167	8 082	434 659
Financial intermediation	1 586	1 530 106	729	580 621
Real estate, renting and business activities	2 769	221 605	2 464	379 974
Public administration	3 988	604 859	7 927	671 038
Teaching	10 397	457 532	3 447	730 869
Social and Health Services	5 328	491 979	1 198	905 098
Other community, social and personal services	1 626	538 489	2 688	349 582
Private households with domestic service	11 370	120 206	1 765	267 776
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 13: Región de los Lagos

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	167 802	349 723	227 039	509 528
Agriculture, hunting and forestry	8 815	217 433	42 812	348 613
Fishing	1 527	343 489	15 829	368 284
Mining and quarrying	-	-	314	745 395
Manufacturing industry	18 941	247 040	29 557	588 368
Electricity, gas and water	1 140	376 391	3 029	545 655
Construction	1 785	391 677	28 588	405 285
Commerce	38 684	245 631	34 392	524 703
Hotels and restaurants	10 798	266 353	4 403	384 049
Transport, storage and communications	3 526	430 235	23 290	549 697
Financial intermediation	2 969	815 506	3 179	1 128 195
Real estate, renting and business activities	5 518	445 735	8 335	698 346
Public administration	13 628	721 337	14 852	721 603
Teaching	24 036	474 566	5 564	675 776
Social and Health Services	9 094	577 340	5 049	1 026 274
Other community, social and personal services	5 868	325 531	5 863	368 961
Private households with domestic service	21 474	151 927	1 981	149 046
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 14: Región de Aysén del Gral. Carlos Ibáñez del Campo

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	24 667	379 260	28 620	572 895
Agriculture, hunting and forestry	791	144 512	3 326	364 327
Fishing	476	415 574	2 444	734 142
Mining and quarrying	-	-	899	686 322
Manufacturing industry	2 930	170 692	3 022	373 766
Electricity, gas and water	-	-	691	637 104
Construction	157	297 200	3 040	326 071
Commerce	4 000	288 592	3 433	428 811
Hotels and restaurants	1 596	264 321	753	294 692
Transport, storage and communications	788	653 945	2 596	488 171
Financial intermediation	227	405 681	103	1 789 095
Real estate, renting and business activities	1 342	576 788	619	545 691
Public administration	3 819	534 357	4 817	927 786
Teaching	3 472	546 805	1 199	899 390
Social and Health Services	1 963	574 980	888	928 639
Other community, social and personal services	384	185 856	715	470 707
Private households with domestic service	2 591	137 557	-	-
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 15: Región de Magallanes y Antártica Chilena

BRANCH OF ACTIVITY	number of women	average salaries women	number of men	average salaries men
TOTAL	30 080	552 184	47 619	695 129
Agriculture, hunting and forestry	729	1 948 432	3 197	565 790
Fishing	-	-	1 530	564 363
Mining and quarrying	-	-	4 185	837 445
Manufacturing industry	2 515	358 675	4 950	458 962
Electricity, gas and water	420	417 522	851	1 709 292
Construction	-	-	6 534	543 111
Commerce	5 633	362 334	6 909	369 492
Hotels and restaurants	1 587	345 224	1 388	517 090
Transport, storage and communications	1 030	964 161	5 188	516 323
Financial intermediation	689	1 137 312	928	903 144
Real estate, renting and business activities	702	660 637	2 645	1 216 028
Public administration	3 440	890 454	6 741	1 158 401
Teaching	5 969	612 038	1 465	1 038 875
Social and Health Services	2 315	610 707	413	304 647
Other community, social and personal services	1 140	340 188	588	318 925
Private households with domestic service	3 555	151 115	-	-
Extraterritorial organizations and bodies	-	-	-	-

Attachment number 16: Creation of the composite indicator; women

	Region	Average Salary at Modus Age Group	Average salary	% Of Unemployment	% Of Employment	Secondary Education Graduates Average Salary
		Max	Max	Min	Max	Max
1.	Región de Arica y Parinacota	337 445	307 231	5	43	224 855
2.	Región de Tarapacá	430 262	398 375	6	46	301 508
3.	Región de Antofagasta	388 018	437 263	6	41	306 872
4.	Región de Atacama	402 126	386 867	7	45	304 418
5.	Región de Coquimbo	370 621	324 731	7	44	244 690
6.	Región de Valparaíso	439 684	399 484	8	44	250 585
7.	Región del Libertador Gral. Bernardo O'Higgins	282 898	306 575	6	44	254 750
8.	Región del Maule	308 293	282 100	8	41	235 559
9.	Región del Biobío	303 293	306 399	9	38	231 082
10.	Región de La Araucanía	283 196	297 869	7	46	228 367
11.	Región de Los Ríos	347 025	308 693	6	43	256 352
12.	Región de Los Lagos	322 421	349 723	5	46	261 543
13.	Región de Aysén del Gral. Carlos Ibáñez del Campo	383 686	379 260	5	56	297 727
14.	Región de Magallanes y Antártica Chilena	497 869	552 184	4	45	379 170
15.	Región Metropolitana	474 043	433 686	7	48	286 015
	Chile Total	402 234	382 253	7	45	266 692
Mean	1	373 320	365 793	6	45	270 637
Stand	lard Deviation	65 980	70 635	1	4	40 385

Attachment number 17: Creation of the composite indicator; men

	Region	Average Salary at Modus Age Group	Average salary	% Of Unemployment	% Of Employment	Secondary Education Graduates Average Salary
		Max	Max	Min	Max	Max
1.	Región de Arica y Parinacota	448 521	418 991	6,70	64,60	356 205
2.	Región de Tarapacá	697 980	616 245	5,80	71,10	536 055
3.	Región de Antofagasta	874 027	762 642	6,00	70,40	581 736
4.	Región de Atacama	612 204	556 622	6,60	69,10	496 719
5.	Región de Coquimbo	545 710	480 783	7,00	67,30	410 603
6.	Región de Valparaíso	658 447	549 286	6,70	65,50	400 058
7.	Región del Libertador Gral. Bernardo O'Higgins	421 099	418 502	5,20	68,80	380 477
8.	Región del Maule	396 759	382 373	4,90	68,00	376 821
9.	Región del Biobío	453 111	430 025	7,70	61,20	372 503
10.	Región de La Araucanía	471 969	387 103	5,50	68,30	360 995
11.	Región de Los Ríos	410 383	390 653	3,80	67,30	356 693
12.	Región de Los Lagos	524 460	509 528	3,00	71,00	380 045
13.	Región de Aysén del Gral. Carlos Ibáñez del Campo	624 413	572 895	3,10	74,20	506 455
14.	Región de Magallanes y Antártica Chilena	930 470	695 129	2,10	72,50	530 845
15.	Región Metropolitana	771 115	627 903	6,30	67,90	416 117
	Chile Total	628 706	543 996	6,00	67,30	411 982
Me	an	591 836	521 417	5,40	68,41	429 644
Star	ndard Deviation	164 506	115 347	1,62	3,14	74 471