Equal pay for equal work? The development of the Austrian gender pay gap before and during the pandemic

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Abstract

On September 18th, the world "celebrates" international equal pay day. The international pay day aims to raise awareness for the fact that women earn significantly less than men across the globe. At the same time, the international equal pay day promotes a multitude of policies reducing this gender pay gap. Up until this day, Austria reports on of the highest gender pay gaps in the European Union despite decreasing trend over the past decades (Statistik Austria nd).

The aim of this paper is to empirically analyzes the gender pay gap specifically for Austria in more detail with an OLS regression using EU-SILC data from the year 2018 & 2021, testing the hypothesis on whether or not women receive equal pay for equal work. This empirical analysis is new in the academic literature as there is no previous research on the years 2018 and 2021 using Austrian EU-SILC data. What is more, this paper examines how the gender pay gap has developed during the pandemic in comparison to the pay gap in 2018.

The empirical analysis finds a raw gender wage gap of over 40% and an unexplained gender wage gap of 10.6 % for 2018. For 2021, the raw gap decreased to 37.5 % during COVID-19 whereas the remaining gender gap increased to 11.9%. The raw gender wage gap reports differences in average monthly net wages of males and females without accounting for any wage characteristics whereas the unexplained gender wage differential is attributed to unobserved or non-measurable female characteristics after accounting for major wage determining variables such as education, hours worked, job sector, health indicators and work experience. Lastly, policy recommendations such as transparent payroll data and gender sensitive parental leave schemes are discussed in more detail as possible remedies towards decreasing the gender wage gap.

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Introduction

In the year 1970, Billy Jean King, one of the greatest female tennis players in history winning a total of 39 grand slam titles risked her entire professional tennis career for the main topic of this paper: The gender wage gap. Billy Jean King had a seemingly trivial yet unprecedented request towards the former professional US national tennis league: Female tennis players should earn the same price money as male players do. The trivial element of the request: Billy Jean King argued rationally, namely that the entrance ticket revenues generated at professional tennis matches are the same for male and female matches, hence female tennis players contribute just as much for revenues earned as male players do, a simple and reasonable productivity rationale. The payment ratio of professional male and female tennis player at that time was 12:1, respectively (King 1988). The unprecedented element of the request: Women simply cannot ask for the same income..well..because they are females (King 1988). Billy Jean King's demand on equal pay for equal work was denied, which was the founding moment for the Women's Tennis Association (WTA), established out of boycott towards unequal pay by Billy Jean King, not knowing if the newly founded female association would be of any success in guaranteeing more equal pay for women (King 1988). Indeed, the WTA did succeed, attracting the best female tennis players in the world in hope for more equal prize money (King 1988).

Today, the grand slam prize money is the same for male and female professional tennis players. For female professional tennis players, it took around 50 years to achieve equal pay for equal work, irrespective of gender. Outside of the fabulous world of tennis, the prospects for equal pay for equal work look rather different. 151 is the estimated number of years by the World Economic Forum that it will take to close the world gender economic gap, given the current gender wage gap of 80 cents to 1$. This is the respective pay women and men earn for labor with the same market value (World Economic Forum 2022).

The aim of this paper is to shed more detailed light on the gender pay gap, in particular analyzing the gap for Austria in depth. In general, the gender pay gap describes wage differences between women and men and academic literature provides two distinguishable characteristics of the gender pay gap: an explained and unexplained element of the gender pay gap. The explainable pay gap is a wage differential between males and females that accounts for all sorts of observable wage characteristics such as hours worked (full- vs. part-time), type of job, education, job sector, experience etc. The non-explanatory gender wage gap is the pay gap between males and females after accounting for productivity variables determining wage and is due to remaining unobservable or non-measurable characteristics (Böheim et al 2013). Academic discussions sometimes link gender discrimination with the unexplained gender pay gap, thus claiming that the non-explanatory gender pay gap is evidence for labor market discrimination against women (ILO 2018). However, one must be extremely cautious using it as a synonym as unobservable female characteristics do not necessarily reflect causal wage discrimination on the basis of sex.

The paper starts out highlighting current literature on the gender pay gap including definitions, causes of variations of wage gaps found across academic work as well as existing data from previous years in Austria. Secondly, the paper compares general wage disparities among women and men among OECD countries using the most recent OECD data from 2021 to get a better understanding on country differences across highly developed countries. In the third part, the Austrian gender wage gap will be decomposed in a cross-section OLS regression into different wage-determining productivity variables using EU-SILC data from 2018 and 2021, thus using data right before and during the COVID19 pandemic. Using two data points, the results will show how the gender pay gap changed over time from 2018 to 2021 in Austria. The regression results will analyze the research question on the magnitude on both the dependent wage variable and on the gender wage gap (female dummy) of each explanatory wage characteristics variable added in the econometric analysis to shed light on both the explanatory and the non-explanatory gender wage gap elements for 2018 and 2021.

The empirical part of the paper will also highlight some descriptive statistics on gender heterogeneities among job sectors, regions, payment satisfaction as well as COVID -specific

questions of interest such as home office options during the pandemic. The latter section discusses four different sets of policy options tackling to decrease both elements of the gender pay gap.

Chapter 1

Literature review

§3 GlBG. This sequence of a paragraph followed by a number and four letters may seem insignificant but in fact constitutes a landmark in discussing existing literature on the gender pay gap in Austria (§3 Gleichbehandlungsgesetz GlBG, Bundesgesetzblatt 1979/108). In 1979, the Austrian equal treatment act was passed. §3 of the equal treatment act stipulates the prohibition of any direct or indirect discrimination at the workplace due to gender, including pay, education on the job, promotions, access to and dismissal from employment as well as remaining employment conditions (§3 GlBG). §11 GlBG further regulates in more detail that any form of compensation difference based on gender is illegal (§11 GlBG). A few years before passing the equal treatment act, the family law reform in Austria legally allowed women to find employment without their husband's consent in 1975 (Bundesgesetz vom 1. Juli 1975 über die Neuordnung der persönlichen Rechtswirkung der Ehe, Bundesgesetzblatt 1975/412). After many more reforms and legal acts being passed since the 1970's, on paper, discrimination based on gender in 2023 is illegal in Austria.

And yet the term "gender pay gap" has been gaining in prominence in the economic literature and has become of significant importance to policy makers as well as citizens (Hamidulla et al 2020). The literature review of this paper shall serve the purpose of elaborating on firstly distinguishing between different gender pay gap definitions. Secondly, a brief overlook on gender wage gap components are addressed and lastly an overview on existing Austrian data on the gender pay gap is presented.

1.1 Gender Pay Gap - What is it?

The concept of a gender pay gap is quite intuitive and widely used as an indicator for gender inequality in the labor market (Christofides et al 2013). Simply put, the gender pay gap shows pay differences between men and women and is widely expressed as a percentage difference of female and male pay relative to male pay. This broad definition is accepted as a common denominator in academia. More variation in defining the gender pay gap in more detail come into play when comparing the terms earnings, income and pay gap. In the literature, in many cases these terms are used interchangeably, however, caution is required using them as a synonym. While pay and wage usually refer to any income stream directly related to employment, earnings and income on the other hand may include not only employment-based compensation but also returns on financial capital such as dividends, royalty payments, cash inflows from self-employment or even transfers (Brenner nd). For this paper, the pay gap term will be based on employment-based compensation only, disregarding any other income forms mentioned above.

Even more divergence in the social science literature appears on which pay variables and specifications to use determining the pay gap. Referring to notable statistical and policy institutions, Eurostat for example uses female and male average hourly gross wages as a baseline for calculation (Eurostat 2023). By contrast, the United States Census Bureau makes use of only full-time median earnings of men and women in the US (Wisniewski 2022). The international labor organization already provides a more distinguished comparison of multiple baselines. Both a gap based on mean and median hourly wages as well as a gap based on mean and meadian monthly pay are discussed in the approach on the gender pay gap of the International labor organization (ILO 2018). On a more regional level, Statistik Austria uses average gross hourly wages of employees working in companies with 10 or more people employed in the private sector only (Statistik Austria nd).

In summary, after reviewing variances in underlying measures for the gender pay gap, it is evident that these differences in pay data used may cause a significant difference in the gap reported. Thus, when reading and researching empirical evidence on the gender pay

gap, the reader is highly advised to carefully review the definition and specifications used for pay data as well as the underlying methodology used. The underlying nature of analyzing and reporting a gender pay gap is commonly to identify wage differences among women and men and is typically expressed as a percentage difference in female to male pay. Yet there is substantial heterogeneity in actual pay definitions, variables and specifications used for evaluation.

1.2 Observable vs. Unobservable Determinants of the Gender Wage Gap

As previously noted, the gender wage gap is a widely used indicator for economic gender inequality in social as well as popular science (Gould et al 2016). The question inherently arises on whether or not the pay gap may be used interchangeably with gender discrimination. Existing scholarly work provide extensive evidence that a significant component of the gender gap is caused by so called observable factors (Borjas 2013). As the wording might suggest, observable factors are observable, meaning it is statistically measurable, directly observable and existing in a data set. Examples of observable variables in relation to the gender wage gap are age, gender, years of education, wage or occupational sector (Kunze 2008). Unobservable factors on the other hand are factors that indeed cause variation in your dependent variable of interest but are either not measurable or not available in the data and thus result in being cumulatively captured in the error term of the econometric model. Ability is a prominent case of an unobservable or rather immeasurable variable in labor economics (Borjas 2013). Even though IQ results or education sometimes are used as proxy variables for ability, they are not fully capturing the effect of ability on wage and thus the effect of ability will, at least partly, remain in the error term (Borjas 2013). Unobservable variables or characteristics in the literature in relation to the gender pay gap are for instance differences in risk taking approaches or statistical discrimination (Böheim et al 2013).

The raw gender pay gap is the wage differential of men and women without taking any observable nor unobservable factors into account (Gould et al 2016). Thus, the raw gap

does not consider any wage-related difference that may explain this gap. Economic literature on human capital theory provides evidence of conditional variables which, at least partly, explain a wage gap between men and women. The most prominent conditional variables on wage include age, education, experience, job sector and job level (Becker 1971, Becker 1993, Böheim et al 2013, Borjas 2013, Mincer 1974). Blau and Kahn (2017) show, however, that the conventional human capital relevant factors become of decreasing importance for the pay gap in developed countries as both genders, on average, obtain similar amounts and quality of human capital. Empiric literature suggests that the main drivers for the conditional gender pay gap are less hours in paid work, as well as significant pay disparities in typical female and male occupational industries and the job function within the sector (Blau and Kahn 2017, Perrons 2009). What is more, Köppl-Turyna (2019) specifies that indeed fot the case of Austria, less hours in paid work for women translates into a motherhood gap, as motherhood seems to be the main driver on working significantly less hours compared to women without children and men (Köppl-Turyna 2019).

The remaining pay gap after conditioning on observable characteristics sometimes is referred to as gender discrimination or at least partly containing a discrimination aspect (Gould et al 2016). However, claiming that the remaining gap indeed is specifically and explicitly due to gender discrimination remains hard to prove. Discrimination based on gender is illegal and by nature, difficult to observe or clearly measure with data (Weichselbaumer et al 2005). Nevertheless, numerous experiments have shown that indeed employers tend to discriminate against women in many aspects, both by paying lower wages for the same work or by providing less opportunity for women and thus also directly influencing wage outcomes in the long term (Albrecht 2003, Liebkind 2016, Neumark et al 1996). Thus, it can be summarized that the adjusted pay gap accounting for the same set of observable skills and characteristics is likely to contain not solely but at least partly a gender discrimination aspect to it, resulting in less pay for the same observable characteristics (Blau and Kahn 2017, Borjas 2013, Christofides et al 2013, Gould et al 2016).

1.3 Gender Pay Gap in Austria - A Review

Yet, in 2018, according to Statistik Austria, out of 20.4 % wage gap between men and women, 6.4 percentage points are not explainable, giving an indication that at least part of that remaining percentage is due to gender discrimination.

Böheim et al (2013) use panel survey data from 2002 to 2007 evaluating how the gender pay gap has developed over these years. A decrease of 3 percentage points, from 21% to 18% in 2002 and 2007, respectively, was found (Böheim et al 2013), accounting for observable characteristics. This decrease can be both accounted towards a higher return for women on observable characteristics such as tertiary education but also an improvement in onbservable characteristics over the 5 year time horizon analyzed in the paper (Böheim et al 2013).

For 2011, Grandner et al (2014) found a remaining unexplained gender wage gap of almost 20 % across all income groups after controlling for observable characteristics in Austria using EU-SILC data. Additionally, in Austria this unexplained gender wage gap tends to increase along the pay distribution (Grandner et al 2014).

Böheim et al (2021) further continue the analysis on the gender pay gap change over time in Austria using EU-SILC data from 2005 to 2017. Confirming the indicated trend from previous years (Böheimt et al 2013), both the explained as well as the unexplained gap have declined. In 2017, Böheim et al (2021) find a remaining unexplained gap of 5.1%.

As briefly mentioned in section 1.1, however, based on variation in data, definitions and econometric approaches, deviations not only on overall literature on the gender pay gap can be found but also for existing data in the pay gap in Austria.

Summarizing existing data from empirical analysis in Austria since the early 2000s, a notable reduction in both the conditional and unconditional gender wage gap has occured (Böheim et al 2013, Böheim et al 2021, Statistik Austria nd). Despite this favorable development of the gap within Austria over time, compared to the gender pay gap average in the EU, Austria remains having one of the biggest gender pay gaps within the European Union (Statistik Austria nd).

Chapter 2

Gender Pay Gap in the OECD - A cross-country comparison

The first Chapter of this paper served as setting definitions of the wage gap as well as illustrating possible sources of variation in both the term as well as the actual number of the gap. The literature overview reviewed underlying reasons of both the observable and the unobservable pay gap found in existing scholarly work and available data until the year 2017 on the gender pay gap in Austria were summarized.

Chapter 2 aims to briefly overview current data on the gender wage gap within the Organisation for Economic Co-operation and Development, which incorporates mostly high-income and highly developed economies to get a better overview on a cross-country comparison. As a methodology, the OECD uses the difference between median earnings of men and women relative to median earnings of men on a full-time employment data basis, hence already adjusts for part- vs. full-time work and does therefore not reflect the raw gender pay gap (OECD 2023).

The median gender wage gap for all OECD countries in aggregate is 11.9 % for the year 2021. Thus, for every Euro a man earns, women earn 88 cents to the Euro in the OECD on a median basis, already accounting for hours of work. Compared to the year 2018, this median OECD gap has decreased by 1.1 percentage points (OECD 2023). Within the OECD, this male female wage differential can be accounted for different factors such as educational attainment, "female" jobs, motherhood as well as an unexplained part possibly including gender discrimination (ILO 2018). In regards to educational attainment, despite the fact that more women than men are university graduates within the OECD, women still stronly

lack behind in the STEM (Science, Technology, Engineering and Math) tertiary degrees and thus, higher paid follow up careers (ILO 2018). A low proportion of girls and women within the STEM field, however, is not because women are simply less cognitively capable in such areas but mostly due to existing gender underrepresentation, gender stereotypes and less family-friendly working environments (Beede et al 2011). Quite on the contrary to the OECD, in many Middle Eastern and Central Asian countries such as Iran, Oman or Uzbekistan the proportion of females in STEM areas is much higher compared to the OECD countries (Weingarten 2017).

As stated above, another element causing a persisting gender pay gap are "female" jobs. Women often end up in paid care work careers or in types of jobs that are flexible and allow for a family-friendly adjustable working schedule. Typically, these types of jobs, especially jobs in care work such as nursing, education or social work have lower hourly wages (ILO 2018). Beede et al (2011) for example find that in the STEM career areas which are not considered "female" jobs, women earn 33% more compared to non-STEM careers, on average. Lastly, the unexplained gender pay gap within the OECD basically accounts for unknown or unobservable factors leading to the fact that women do earn less compared to men. Such an unoberservable factor may be gender discrimination, that is women being paid less for the same type of job with the same value on the basis of gender (ILO 218). In Austria for example, this unobserved part of the gender pay gap has been decreasing over the years which also lead to a decrease in the overall gender pay gap for men in Austria (Böheim et al. 2013).

In regards to heterogeneity across OECD countries, the Asian OECD member South Korea reports the highest gender pay gap of 31.1 %, followed by Israel, Latvia and Japan, with gaps of 24.3 %, 24 % and 22.1 %, respectively (OECD 2023). High gender pay gaps for Japan and South Korea are rather unsurprising as both countries, especially South Korea, are still rooted in deeply patriarchal societies, whereas both the South Korean as well as the Japanese gender pay gap have decreased significantly over the past years (Cho 2013, OECD 2018, OECD 2023). Compared to the decreasing wage gap for Japan and South Korea, the gap for Latvia and Israel is in fact showing an increasing trend during the last

decade (OECD 2023). Japan, South Korea and Israel also rank very poorly among the glass ceiling index whereas for Latvia unfortunately there is no data on the glass ceiling index (The Economist 2023). The glass ceiling index published by The Economist on an annual basis is an indicator on the likelihood of women having equal working and career opportunities and treatment as men aggregated by measures such as higher education among women, labor-force participation, net child-care costs (The Economist 2023). Looking at below median OECD gender wage gaps, Belgium reports the lowest gender pay gap with 2%, followed by Bulgaria and Colombia with 2.6% and 3.2 %, respectively (OECD 2023). Most of the Scandinavian countries known for progressive gender policies report a below median gender pay gap ranging between 4.6 % (Norway) and 12.9% (Iceland). Interestingly enough, one Nordic country, namely Finland stands out having the ninth highest gender pay gap (16.0 %) among the OECD countries (OECD 2023).

Former bloc soviet countries can be found mostly below the OECD median, except for Hungary (OECD 2023). Bulgaria reports the lowest gap of 2.6 % followed by Poland with a gap of 8.7 %. These findings are in congruence with academic literature on gender wage gaps for former soviet countries. Mysíková (2012) finds a significantly higher observed gender wage gap for both the Czech Republic and the Slovak Republic compared to Poland mostly due to better wage characteristics for Polish females.

While this OECD data provides a good overview of the gender wage gap on median full-time employment basis, one needs to be highly cautious in interpreting the data as a 1:1 comparison. While official data for Bulgaria and Colombia for example show a fairly low wage gap, the overall labor market participation rate for women in these countries is also significantly lower compared to other OECD countries like Austria or Germany (OECD 2023).

As a graphic overview, the overall OECD country positionings regarding the respective gender wage gap can be found in Figure 2.1.

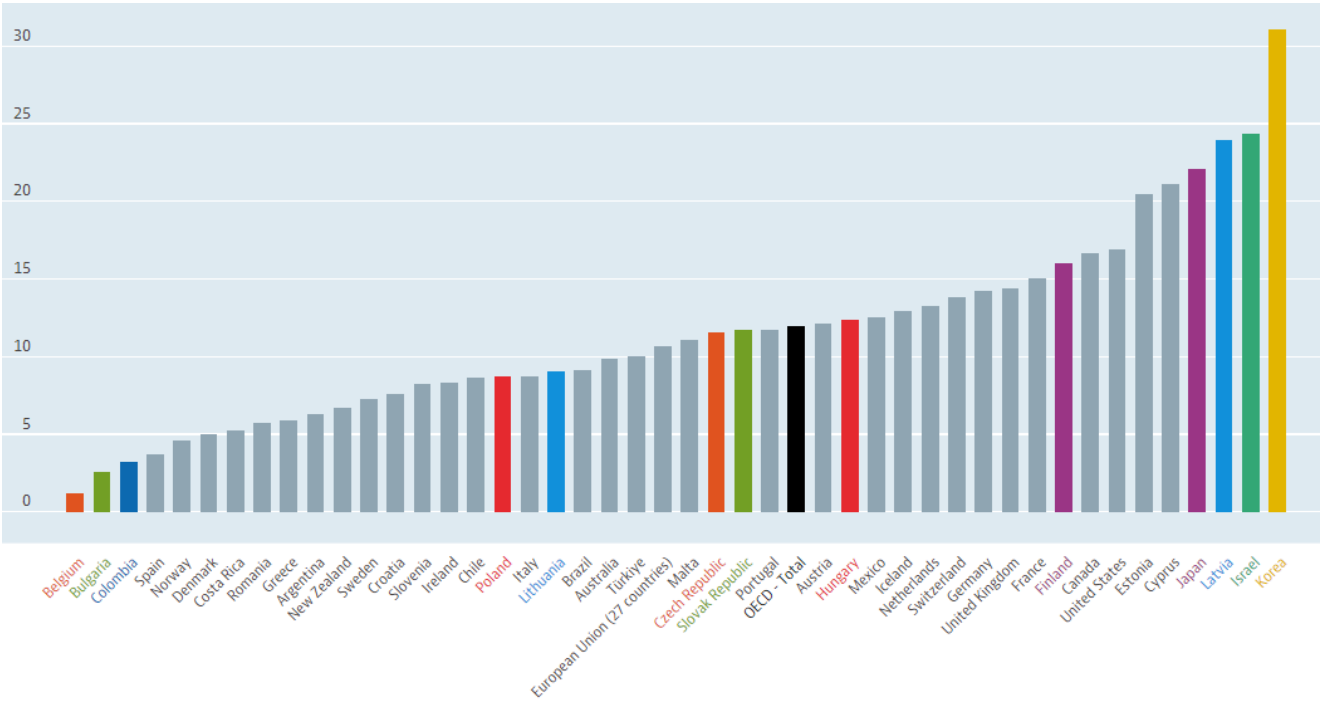

Figure 2.1: OECD Gender Wage Gap on a Full-Time Employee Country Basis (OECD 2023)

Chapter 3

Gender Wage Gap in Austria - Data Analysis

3.1 Theory And Hypothesis

After reviewing the gender wage gaps within the OECD in Chapter 2, the following part will empirically analyse the gender wage gap in more detail for Austria in the year 2018 and 2021. Historically, despite decreasing trends, Austria has reported one of the highest gender pay gaps in the European Union and up to this day is above EU average (OECD 2023).

Due to gender inequality dissatisfaction in Austria, in 2018, one of the biggest petitions for referendum in Austria was called into existence. Its main aim was simple yet complicated: Gender equality in Austria (Bundesministerium für Inneres nd). The demands of the civil society marking the birth of the petition were manyfold, yet one of the three main pillars was economic gender equality consisting of policy demands to decrease the existing gender wage gap but also to distribute unpaid work, such as care work more evenly among women and men (Frauenvolksbegehren nd). The term gender pay gap as a key economic indicator of gender inequality was almost omnipresent among the media during the petition in Austria in 2018, leading to almost half a million people signing the petition for referendum (Bundesministerium für Inneres nd). As the gender pay gap caught so much attention and ultimately led to a large part among civil society organizing and actively working towards demanding political change it is for this reason, that analyzing the actual gender pay gap in detail and

trying to decompose it into as many explanatory components as possible for Austria in 2018 is of great interest.

In classical economic theory, financial income streams such as wage are generated by investing capital, such as education, work experience, hours of work etc (Polachek 2007). Thus, in theory, if person A, being female and person B, being male have the same human capital factors, their return to investment should be the same. The aim of this section of the paper is to test whether this hypothesis indeed is true by using as a variety of human capital factors and other observable characteristics that are relevant on wage outcomes, major ones being education, years of experience as well as working hours (Borjas 2013, Böheim 2021, Polachek 2007). The empirical analysis aims to decompose the causal effect of being female in the labor market into observable and unobservable factors causing a wage disparity between men and women.

In addition to shedding a more detailed light on decomposing the wage gap for 2018, the development of the wage gap during the pandemic will be analyzed using EU-SILC data from 2021. The development of the gender pay gap during COVID-19 in Austria is especially interesting as Austria had one of the strictest COVID-19 policy measures in the world (DerStandard 2023). In regards to potential effects of COVID-19, the economic literature is ambivalent. On the one hand, the strict COVID-19 quarantine measures suddenly allowed many people to work from home and thus increasing flexibility in working hours, time management and reducing travel time to work. Such an increase in work flexibility would point towards the direction of a decrease in the gender wage gap as it would benefit women participating on the labor market (ECO Austria 2021, Schwarzbauer et al 2020). On the other hand, economic and sociology literature also suggests that with the emergence of COVID-19 as an economic an societal shock and its imposed policies, the burden of care work and other forms of unpaid work significantly increased for females (Power et al 2020). What is more, the pandemic has also lead to a reinforcement of gender stereotypes (Fisher et al 2021). Hence, from theory and current literature, it is not clear which effect may be stronger or whether the two opposite indications balance each other out, thus ultimately not leading to

any change. The aim of including the year 2021 is not to make a causal inference of the impact of COVID-19 on the change of the gender pay gap but to add it as a second data point and observe its change in, but not due to the pandemic.

3.2 Data And Choice of Method

To test the above formulated hypothesis, the paper will include a detailed empirical analysis on the gender pay gap in Austria using EU-SILC data from the year 2018 as well as 2021. The European Union Statistics on Income and Living Conditions Survey (EU SILC) that is being used for the upcoming data analysis is an annual microdata survey gathering key information on living conditions, poverty, social exclusion, labor and income (Eurostat n.d.). The EU-SILC dataset provides both a cross-sectional as well as four-year longitudinal data on individuals in the European Union and additional non-EU countries (e.g. Turkey and Iceland). The EU-SILC dataset is especially useful for the gender wage gap analysis as it contains a variety of wage-determining variables being used in standard mincer wage regressions such as human capital or skill variables (Mincer 1974). Additionally to a standard mincer wage regression, wage-determining variables such as full- vs. part-time work, number of over hours worked and a variety of employer-based variables are included (Krueger and Summers 1988). The specific variables, however, will be explained in more detail in the econometric specification below.

The Austrian country subset for the years 2018 and 2021 of the EU-SILC data set were kindly provided by the national Austrian Statistics Institute "Statistik Austria". A cross-section subset of the Austrian EU-SILC data is generated, namely employed individuals only, reducing the number of observations of 10,633 initial participants to 4,596 observations, which were currently employed at time of the survey data was collected in 2018. For 2021, 10.435 initial individuals participated in the survey out of which 4,250 observation were currently employed at survey time. 49.35% of these employed individuals in the subdataset in 2018 identified as females whereas 50.65% identified as male. In 2021 49.39% identified as female and 50.61 %

identified as male.

Additionally, each EU-SILC survey wave offers focus modules in the questionnaire. In 2018, this focus module was specified on determinants and questions regarding personal and family well-being (Eurostat n.d.) and in 2021, the EU-SILC survey focused on COVID19-related questions such as home office options or change of working hours due to COVID-19 policies. Specific variables of interest from the well-being focus module in 2018 and COVID-19 variables from 2021 will serve as descriptive statistics but will not be included in the main econometric analysis.

In terms of composition, a cross-section for both 2018 and 2021 is used. EU-SILC also offers longitudinal data, however as the study design of the survey stipulates a drop-out rate of 25% every year due to its rotational design, using a cross-section for both years is the choice for the analysis being made for this paper (Statistik Austria nd). Every year a stratified random sample of 25% using the Austrian Central Register is added to the survey cohort. This also guarantees a random and representative sampling method as everyone living in Austria is legally required to register at the Austrian Central Register (oesterreich.gv.at 2023).

3.3 Model Specification

The main goal of the following data analysis is to shed more extensive light on main wage determining variables and which of these characteristics also have an impact on the gender dummy coefficient in the model. The dependent variable in my model is wage and the independent variables are subsets of different determining wage characteristics. The following OLS regression model will be used to decompose the effect of different wage contributions on the actual wage:

$$ln\_NetWage_i = \beta_0 + \beta_1 FemaleDummy_i + \beta'_X X_i + \varepsilon_i \tag{3.1}$$

The model above encompasses the following variables:

The dependent variable is the log of monthly average net wages. In the literature on wage gapes, one can find both mean and median wage specifications (ILO 2018). For this paper, the mean is used to incorporate the effect of extreme values or statistical outliers of net wages earned. For 2018 in the 95 percentile income distribution, the average monthly female wage was 2,800 Euros whereas for men it was 3,950 Euros. This disproportional disparity of male vs female monthly pay along the wage distribution shall be accounted for. The primary independent variable of interest for this paper is a female dummy, 0 for being male and 1 for being female. The female dummy represents the gender wage gap, hence the wage differential between males and females and indicating the causal effect of being female on the labor market. Without any additional controlling factors, the female dummy coefficients also represents the raw gender pay gap, that is without accounting for any explanatory wage characteristics. Additionally, the OLS regression model includes a vector X that controls for observable wage determinants. The specific variables included in the vector will be explained in more detail below. It is also worth noting that the dependent variable "average net wage" already reflects disposable pay after tax from employment as net wage in Austria accounts for tax liability deductions and social security deductions. The dependent wage variable will be a logarithmic variable, thus providing a log:lin model. Taking a logarithmic form of the dependent variable has the advantage of interpreting the independent variable coefficients as a percentage change compared to change in the unit of measurement of the independent variable. Transforming the initial linear wage variable into a logarithmic unit also does not pose a problem as there are no observed negative or zero values for wage in the datasubset used. The X vector allows for a decomposition of different wage contribution variables according to economic theory (Becker 1993, Borjas 2013, Krueger and Summers 1988, Mincer 1974). Overall, 9 different subsets of control variable categories will be added one after another. The model tries to incorporate a variety of variable categories for possible wage determining characteristics and thus also controlling for omitted variables as much as possible using a multitude of variables on proxy observable wage determinants.

The X vector as a control vector for key wage determining characteristics consists of the

following variables, which are added one by one to the model by category clusters:

In the **first specification**, the variable **age** is added to the female dummy as independent variables. To control for possible non-linear impacts of age on wage, the age variable is additionally squared, hence the second added control variable is **ageSquared**.

In the **second specification**, the variables includes a subset of contract characteristics to account for such wage determinants. The variables **HoursWorked + Overtime Hours** and **FixedTermContract** are added. The first variables gives information on whether individuals work full- vs. part-time and includes accounting for hours worked overtime. The Fixed-Term Contract controls for individuals in the data set working on an open-end (infinite) vs. a temporal (finite) working contract. It is expected that controlling for part-time vs. full-time hours worked will account for a substantial share of the gender wage gap as the overall proportion of females working part-time is much higher compared to men in Austria, hence a large part of why women earn less net wage, on average, compared to men should be accounted towards the actual hours worked. In 2018, 11.2% of male employees worked part-time compared to 47.5% of female employees. In 2021, the share of part-time work for both gender increased to 11.6 % and 49.6 % for men and women, respectively (Statistik Austria 2023).

In the **third specification**, the number of jobs per individual are accounted for. Over 7% of individuals in the cohort have more than one job both in 2018 and 2021, which in turn affects net wage. The added variable in this step is **AdditionalJobs**. Unsurprisingly, people with more than one job will have a higher average net wage, therefore including it as another explanatory net wage variable is crucial.

The **fourth specification** continues to account for job sector differences. Legitimately it can be argued that women and men tend to work in different job sectors and overall, "female" jobs pay less as these job sectors such as care work do have different jobs characteristics

compared to "male" jobs (Fanning Madden 1981). To test such a hypothesis, the variables **JobSector**, **JobFunction**, **Instructions-From-Supervisor** and **FirmSize** will be added. This cluster of job sector characteristics controls for the job sector individuals work in and additionally also for the function these individuals have on the job as not only the job sector but also the function these individuals hold within the job are wage determinants. This step also accounts for individuals on the job having to follow instructions of their supervisor and also encompasses the variable firm size, whereas firm size is measured by the number of employees. It can be argued that wage structures in general are heterogeneous among small-, medium or a large-scale companies.

Continuing with the **fifth specification**, two key variables determining net wage are included, namely **YearsWorking** and **Age-Start-Working**. These two variables, namely number of years in regular employment and starting age in regular employment are observed proxies for experience. Arguably, women and men may have different net wages also due the fact that they have different levels of experience regarding their job and position. In the literature, pregnancy and maternal leave often are cited as a potential reason of having less years of experience in paid work (Köppl-Turyna 2019). Including these two variables controls for the crucial parameter in the standard mincer wage regression (Mincer 1974).

Following with **specification six**, a group of health-related explanatory variables is included in the regression. For 2018 23% and in 2021 26% of individuals in the dataset reported having reoccurring and regular constraints exercising their jobs due to chronic diseases and health conditions. It is plausible to argue that a variety of health conditions may have an impact on the wage (European Commission 2017). Therefore, this step includes the variables **ChronicDisease**, **Working-Constraints-Health**, **Overall-Health-Conditions**. These variables account for both chronic health conditions and working constraints due to health conditions as well as the general health status of the respondents.

For **specification seven**, controls for spatial effects on wage in two different ways are in-

troduced. On the one hand by accounting for the location of work within Austria adding bordering regions and on the other hand by including the birth country of the the respondents. Adding location of work will allow accounting for different purchasing powers of firms in possibly heterogeneous regions, hence potentially explaining wage differentials due to that spatial regional heterogeneity. Accounting for country of birth shall serve as a proxy for migration. In labor economic theory, migration often is cited as a (discriminatory) determinant for wages (Borjas 2013, Betrand and Mullainathan 2013, Kee 1995). The following variables will be added to the regression: **SpatialAreaEmployment** and **BirthCountry**

Lastly, in the **specification eight and nine**, the model accounts for another vital wage composition variable according to Mincer (1974), namely education. First, **step 8** adds current education and job training variables such as either being in current job training as well as accounting for the type of current training. The variables added in step 9 are **Currently-In-Training** and **Type-Of-Current-Training**. **Step 9** concludes the X vector of control variables with adding previous education by adding types of school leaving certificates (graduation certificates), types of university certificates and finally on whether or not the individual went to kindergarten or pre-school. The importance of pre-school & kindergarten attendance on wage has been studied by Fessler & Schneebaum (2016). The variables added in the last step are **Type-of-Educational-Certificate**, **Type-Of-University-Degree** and **Kindergarten**.

The econometric specification certainly includes a great amount of explanatory variables correlating with each other, possibly leaving the model with a higher degree of multicollinearity, hence conceivably compromising the precision and statistical reliability of the model. However, as according to economic theory, these above introduced independent variables all seem to play a non-trivial role as wage determinants, it is crucial to include them as this will give a more coherent picture on the magnitude of the gender pay gap not being able to be explained by observed key variables. Having explicated the econometric model in detail, the paper now goes on discussing the empirical results of the model.

3.4 Empirical Findings

3.4.1 OLS Empirical Results 2018

Before going into detail of the regression results, some descriptive statistics from the 2018 EU-SILC subdataset on average monthly net wage distribution are presented. On average, in Austria females earn a monthly net wage of 1,562 Euros whereas men earn a monthly net wage of 2,198 Euros, which is around 636 Euros and thus almost 40% more and visualized in Graph 3.1. This percentage difference of 40% wage disparity for men and women represents the raw gender pay gap, which does not account for any possible explanatory wage variables. Adding to that, the descriptive statistics in Table 3.6 depict different percentile wage distributions for both men and women to provide more distributional detail on the average raw gender pay gap in Austria for 2018. For all the 10, 25, 50, 75 and 95 percentile distributions, females on average earn much less than their male counterparts, whereas the gap is the highest within the 10 percentile, with 85% and lowest in the 75 percentile, with 28 %.

Again, not controlling for any explanatory wage variables, these descriptive figures are rather unsurprising as more than 50% of female individuals in the subsample are in part-time employment, whereas for men only roughly 7% in the subsample work part-time.

	Percentile Distribution of Net Income		
Percentile	Male	Female	Δ
10	1300	700	600
25	1600	1070	530
50	2000	1486	514
75	2500	1950	550
95	3950	2800	1150

Table 3.1: Average Monthly Net Income Male vs. Female 2018 - Percentile Distribution

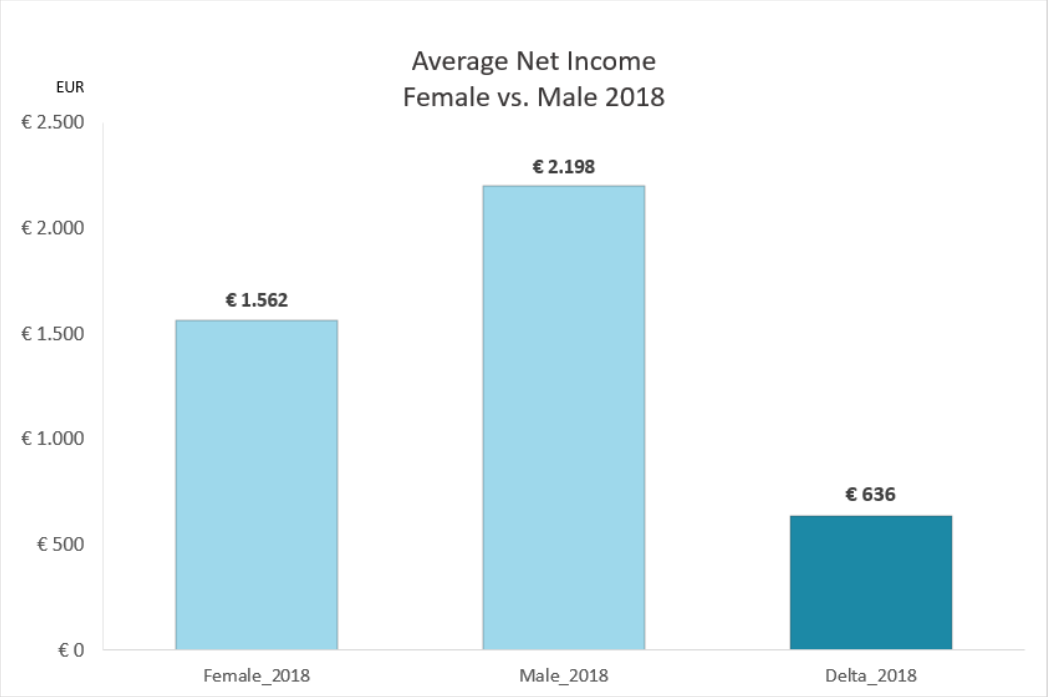

Figure 3.1: Average Monthly Net Income Male vs. Female in 2018

Serving as additional descriptive statistics, the 2018 EU-SILC focus module gathered data on happiness and well-being indicators. Two income-related variables are selected, namely satisfaction with household income and satisfaction with personal income. Those two variables are then decomposed for male and female individual respondents. Despite the fact that women in the subsample on average earn 40% less than men, they are much happier with their household income and equally happy with their personal income compared to male respondents. Especially in terms of unhappiness, women report a much lower share in extreme unhappiness for both personal as well as household income in contrast to males. Going into detail on sociological happiness research, however, is beyond the scope of this paper.

Category	Satisfaction with Personal Income	
	Male %	Female %
No Comment	0,20%	0,44%
Extremely Unhappy (0)	8,10%	4,01%
Quite Unhappy (1)	0,50%	0,40%
Rather Unhappy (2)	0,50%	0,93%
Somewhat Unhappy (3)	1,70%	2,21%
Okish (4)	2,60%	3,44%
Neutral (5)	7,30%	9,57%
Somewhat Happy (6)	8,30%	9,30%
Rather Happy (7)	18,80%	17,99%
Quite Happy (8)	27,40%	25,31%
Super Happy (9)	14,10%	14,37%
Extremely Happy (10)	10,40%	12,04%
	100,00%	100,00%

Table 3.2: Personal Income Satisfaction Male vs. Female

Category	Satisfaction with Household Income	
	Male %	Female %
No Comment	0,60%	0,22%
Extremely Unhappy (0)	7,86%	3,70%
Quite Unhappy (1)	0,09%	0,35%
Rather Unhappy (2)	0,47%	1,24%
Somewhat Unhappy (3)	1,50%	1,59%
Okish (4)	2,19%	2,21%
Neutral (5)	8,42%	7,72%
Somewhat Happy (6)	7,95%	7,41%
Rather Happy (7)	16,62%	16,84%
Quite Happy (8)	27,62%	27,69%
Super Happy (9)	14,13%	17,19%
Extremely Happy (10)	12,54%	14,42%
	100,00%	100,00%

Table 3.3: Household Income Satisfaction Male vs. Female

The following subsection of the paper will continue introducing the results of the econometric specifications explained in detail in the model-specification section 3.3. Table 3.4 displays the result for control variables of specifications 1 - 4.

Regression Results for Control Variable Specifications 1-4 on Log Net Income 2018

VARIABLES	(1) Log Net Income	(2) Log Net Income	(3) Log Net Income	(4) Log Net Income	(5) Log Net Income
Dummy Female	-0.375***	-0.384***	-0.112***	-0.110***	-0.106***
	(0.014)	(0.013)	(0.011)	(0.011)	(0.011)
Age		0.049***	0.046***	0.045***	0.021***
		(0.004)	(0.003)	(0.003)	(0.003)
Age^2		-0.000***	-0.000***	-0.000***	-0.000***
		(0.000)	(0.000)	(0.000)	(0.000)
Amount of Working Hours + Overtime			0.030***	0.030***	0.024***
			(0.001)	(0.001)	(0.001)
Dummy Fixed-Term Contract			-0.161***	-0.167***	-0.062***
			(0.023)	(0.023)	(0.020)
More than 1 Job				0.104***	0.007
				(0.021)	(0.017)
Constant	7.609***	6.461***	5.318***	5.329***	5.165***
	(0.009)	(0.082)	(0.077)	(0.077)	(0.107)
Controlling for Working Contract Charachteristics	*No*	*No*	*Yes*	*Yes*	*Yes*
Controlling for more than 1 Job	*No*	*No*	*No*	*Yes*	*Yes*
Controlling for Job Characteristics (Sector, Function, etc.)	*No*	*No*	*No*	*No*	*Yes*
Observations	4,596	4,596	4,596	4,596	4,596
R-squared	0.139	0.218	0.531	0.533	0.725

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.4: Regression Results controlling for Explanatory Variable Specifications 1 - 4 for 2018

Overall, the (raw) gender pay gap can be found in the coefficient for the dummy female variable. It gives information on how much, on average female earn less than males in percent. In terms of interpreting results, column 1, without any additional control variables, shows that women, on average earn less than 38% compared to men. It is important to note, that income was transformed into logarithmic values and the coefficient for the gender dummy is above 0.3 (around log point of 0.3, percentage and logarithmic point changes increase in divergence), but as shown in Figure 3.1 the raw gender pay gap is a bit higher than 38% and highly significant. Looking at column 2, it can be seen that adding a linear and non-linear age variable barely changes the female dummy coefficient.

However, as expected when adding both the amount of hours worked, hence controlling for part- vs. full-time employment as well as for fixed-term contracts in specification 2 (column 3), the female coefficient drops to 11.2%. Controlling for contract characteristics in spe-

cification 2 leaves a gender gap of 11.2%. Continuing with the results in column 4, when controlling for individuals being employed at more than one job, the female dummy coefficient stays practically the same with 11.0% and being highly significant.

Lastly, column 5 representing the fourth step in the specification, accounts for a multitude of job characteristics such as job sector, job function, firm size and receiving instructions from a supervisor (dummy). In the result overview of Table 3.4, the coefficients of the additional control variables from model 5 are not displayed as most of them are categorical variables with over 40 categories, thus giving a huge and unsightly table if displayed. However, on the bottom of Table 3.4, a good overview on which variable clusters are added in each specification is visible. The specification 4 (column 5), even though controlling for many different job characteristics, only decreases female dummy coefficient by 1 percentage point, compared to column 3, which included part- vs. full-time work. Contrary to some academic literature (Böheim 2013), the influence of job sector and job function on the pay gap does not seem to be as significant in the empirical findings of this paper.

The results from the specification steps 5- 9 of the regression are depicted in Table 3.5. Before continuing discussing the results in Table 3.5, it is important to note that similarly to Table 3.4, not all coefficients for additional control variables are seen separately in the Table as, again, many are categorical variables with a multitude of categories. The controlling clusters, however, can be found in the lower part of Table 3.5 marking "Yes" or "No" for each explanatory cluster. Specification 5 continues with additionally controlling for work experience, which decreases the gender pay gap by more than one percentage point to 9.1%, which before controlling for experience was 10.6%. It can be seen that working experience proxied with the number of years being in employment and the age starting employment accounts for an additional 1% point change in the female dummy coefficient. Notably the female coefficient barely changes after accounting for full- vs. part-time work, providing evidence that an omitted variable bias is rather unlikely. Also the R-Squared of column 10 (specification 9) shows that already 75 % of the variation in the average log net wage can be explained by

the variation in the control variables and barely changed from specification 5 onward, despite the fact that a number of variables are added after specification 5.

When adding health factors into the equation in specification 6 (column 7), no difference in the gender pay gap can be found compared to the prior specification in column 6, still recording a 9.1% difference between the earnings of men and women. Similarly to specification 6, controlling for country of birth and country of work, hence the spatial components of the equation as specification 7 (column 8) does not result in a decrease in the female dummy coefficient. In the final specification step, controlling for both previous and current education and training as a proxy for ability barely changes the gender pay gap. The regression ends up recording a 9.4% difference of monthly net wages between men and women, on average.

Concluding the regression results, it is quite interesting that even though controlling for 9 possible wage-determining clusters, the causal effect of being female on the labor market results in almost 10% less monthly net wage compared to their male cohort. This number can be interpreted as the non-explanatory gender wage gap. Despite accounting for working hours, job type, job industry, education, experience and health, Austrian women, on average, earn 10 percent less than men. The female dummy coefficient is highly statistically significant across all specifications.

Regression Results for Control Variable Specifications 5-9 on Log Net Income 2018

VARIABLES	(6) Log Net Income	(7) Log Net Income	(8) Log Net Income	(9) Log Net Income	(10) Log Net Income
Dummy Female	-0.091***	-0.091***	-0.090***	-0.092***	-0.094***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Age	0.009***	0.009***	0.009***	0.008**	0.007**
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Age^2	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Amount of Working Hours + Overtime	0.023***	0.023***	0.023***	0.023***	0.022***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Dummy Fixed-Term Contract	-0.054***	-0.055***	-0.055***	-0.043**	-0.051***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.019)
More than 1 Job	-0.002	-0.003	-0.003	-0.001	-0.014
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Age starting first regular Job	0.016***	0.016***	0.017***	0.017***	0.013***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Amount of Working Experience in Years	0.013***	0.013***	0.013***	0.013***	0.014***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chronic Diseases		0.009	0.006	0.006	0.008
		(0.010)	(0.010)	(0.010)	(0.010)
Constraints for Work due to Disease		-0.028**	-0.026**	-0.027**	-0.029**
		(0.012)	(0.012)	(0.012)	(0.012)
Person went to Kindergarden/Preschool					0.024**
					(0.010)
Constant	5.122***	5.138***	5.128***	5.477***	5.549***
	(0.109)	(0.109)	(0.111)	(0.177)	(0.175)
Controlling for Work Experience	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Controlling for Health Conditions	*No*	*Yes*	*Yes*	*Yes*	*Yes*
Controlling for Spatial Conditions (Country of Birth and Country of Work)	*No*	*No*	*Yes*	*Yes*	*Yes*
Controlling for Current Training/Education	*No*	*No*	No	Yes	Yes
Controlling for previous Training/Education	*No*	*No*	No	No	Yes
Observations	4,596	4,596	4,596	4,596	4,596
R-squared	0.734	0.737	0.743	0.745	0.749

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.5: Regression Results controlling for Explanatory Variable Specifications 5-9 for 2018

3.4.2 OLS Empirical Results 2021

After analyzing both observable and unobservable wage gaps between men and women in Austria for the year 2018, the following part will now explore the gender pay gap and its potential explanatory factors during the COVID19-Pandemic, making use of EU-SILC data from the year 2021, thus exploring the question on how the gap changed during the pandemic. For the data and analysis in 2021, the exact same OLS-model as in section 3.4.1 including all the step-by-step specifications is used.

It is worth noting that two variables used as potential explanatory factors from the data set in 2018 were not asked in the EU-SILC survey from 2021, namely the size of the firm as well as having working constraints due to health issues. Looking at the effects and significance from the regression results in 2018, firm size had little to no effect on the female dummy coefficient, indicating that firm size does not play a significant role explaining a gender pay gap. The same is true on the impact of existing working constraints due to health issues on the female dummy coefficient in 2018.

Similarly to presenting the empirical results for 2018, the paper will dig deeper into descriptive statistics for the data set in 2021 before discussing the regression results. The Austrian EU-SILC survey from 2021 included specific survey questions on COVID-19 and how it may have impacted several factors concerning work such as the possibility of mobile work, home office and the adaption of working hours due to COVID-19 policy measures at the working place. As in the previous section 3.4.1, the dataset for 2021 only contains male and female employees, thus disregarding self-employed people.

As shown in Figure 3.2, in absolute values, average monthly wages for both men and women have increased, which is of course not surprising due to inflation adjustment via union collective wage bargaining in Austria (Arbeiterkammer 2023). In relative terms, the data indicates a raw gender pay gap of 37.5% for 2021, which is more than 3 percentage points lower compared to the year 2018 reporting a raw gap of 40.7%. This decrease already gives

a partial initial indication on possibly confirming the above hypothesis on COVID-19 not having a significant effect on increasing the gender wage gap.

When looking at a more detailed descriptive statistic focusing on percentile difference between women and men, however, we do see that this change is likely attributed to the wage difference decrease in the 10 percentile and 95 percentile distribution.

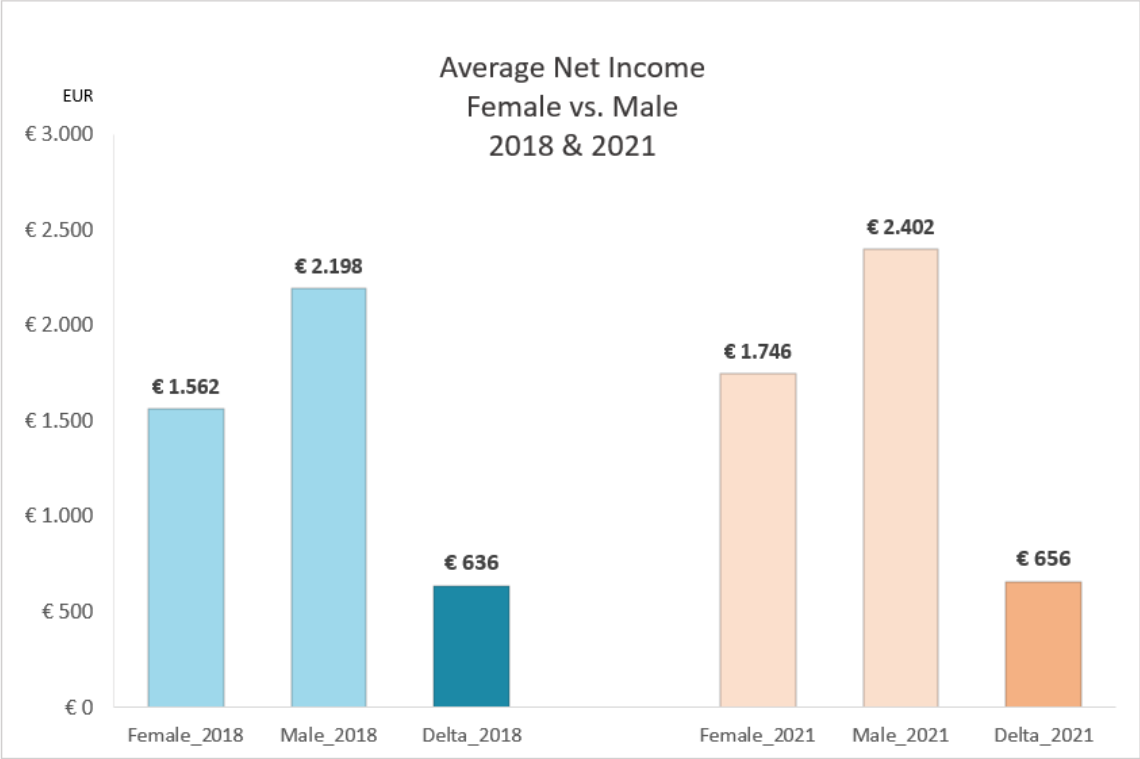

Figure 3.2: Average Monthly Net Income Male vs. Female in 2018 & 2021

Percentile	Percentile Distribution of Net Income **2018**		
	Male	Female	Δ
10	1300	700	600
25	1600	1070	530
50	2000	1486	514
75	2500	1950	550
95	3950	2800	1150

Percentile	Percentile Distribution of Net Income **2021**		
	Male	Female	Δ
10	1500	885	615
25	1800	1200	600
50	2200	1620	580
75	2800	2200	600
95	4150	3117	1033

Table 3.6: Average Monthly Net Income Male vs. Female 2018 vs. 2021 - Percentile Distribution

When COVID-19 hit the world economy in 2020, the EU-SILC survey 2021 included specific questions investigating and capturing possible personal and work-related changes due to the pandemic.

Complementary to personal and income satisfaction in Chapter 3.4.1, Figure 3.3 shows how satisfied Austrian respondents of the EU-SILC survey in 2021 were with work-life balance during COVID-19. Women, on average were more satisfied with their work-life balance compared to their male counterparts during COVID-19. Almost 10 percentage points more females are extremely happy with their current work-life situation contrasted to men. Interestingly enough, over 11 percent of men whereas only 5 percent of females decided to not comment on the question. One may argue that women, on average, are happier on their compatibility of work and family life due to the fact that they spend less time in paid work overall and thus have more time to spend on family and private life. In the data set used, almost 50 % of women whereas only 8 % of men report to work part-time in 2021.

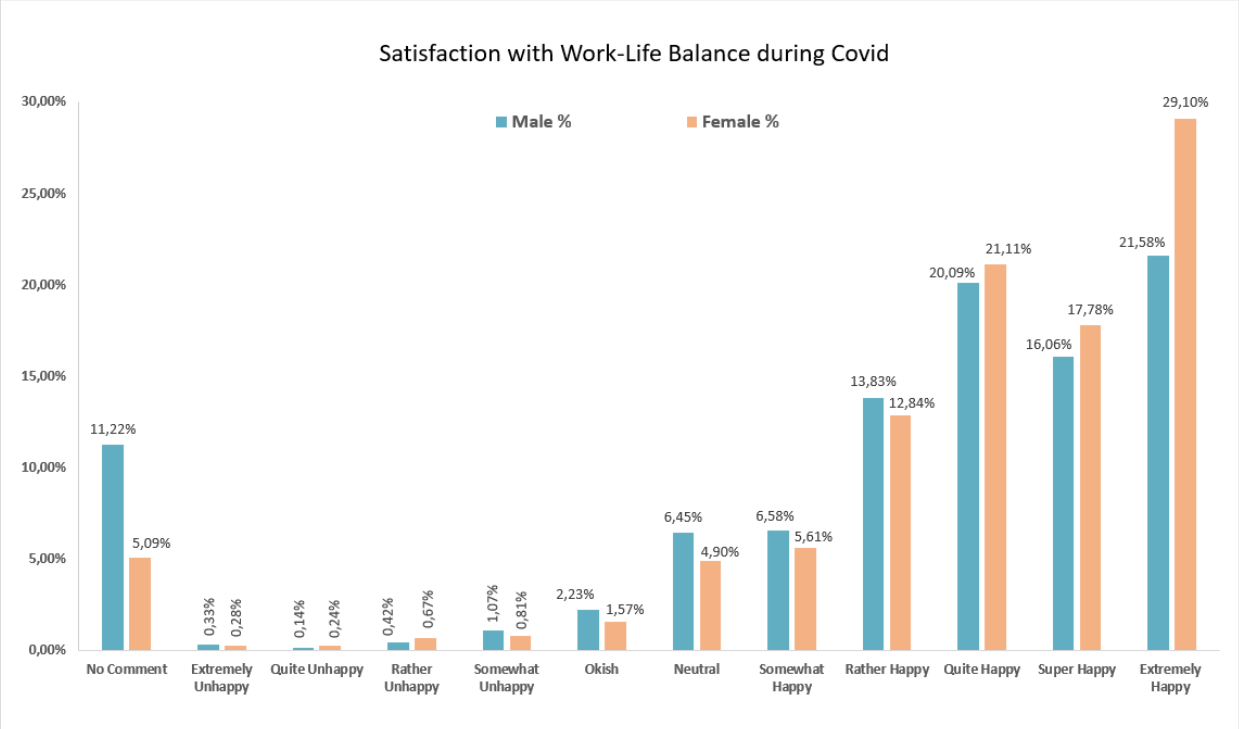

Figure 3.3: Male vs. Female Work-Life Balance Satisfaction during COVID-19

To compare work-life balance satisfaction for a cohort spending a similar amount of time in paid work, a subset of full-time only employees was created. Table 3.7 on the left depicts satisfaction for both part- and full-time employees. Table 3.7 on the right shows work-life satisfaction for the full-time only cohort and yet the previous result of women, on average, being much happier with work-life balance barely changes despite the fact that the burden of unpaid work such as childcare on women increased excessively during the pandemic (Derndorfer et al 2021).

The question arises on why men seem to be significantly unhappier with arranging work and private time. One possible explanation maybe the fact that full-time working men, on average, work more overtime hours compared to full-time working women as shown in Figure 3.4. Almost 90% of women working full-time do not regularly work more than actual 45 hours per week, whereas this is true only for 80% of full-time working men. Almost 20% of full-time working men report a regular working week between 46 and 90 hours, which is true for only 10% of full-time working women, on average. Of course, this disparity on overtime hours is not a causal inference but may be an indication on why men do not feel like they

can combine work and family life as well as women do.

Category	Satisfaction with Work-Life Balance during Covid	
	Male %	Female %
No Comment	11,22%	5,09%
Extremely Unhappy (0)	0,33%	0,28%
Quite Unhappy (1)	0,14%	0,24%
Rather Unhappy (2)	0,42%	0,67%
Somewhat Unhappy (3)	1,07%	0,81%
Okish (4)	2,23%	1,57%
Neutral (5)	6,45%	4,90%
Somewhat Happy (6)	6,58%	5,61%
Rather Happy (7)	13,83%	12,84%
Quite Happy (8)	20,09%	21,11%
Super Happy (9)	16,06%	17,78%
Extremely Happy (10)	21,58%	29,10%
	100,00%	100,00%

Category	Satisfaction with Work-Life Balance during Covid **Full-Time** Only	
	Male %	Female %
No Comment	11,23%	5,94%
Extremely Unhappy (0)	0,36%	0,37%
Quite Unhappy (1)	0,15%	0,09%
Rather Unhappy (2)	0,46%	0,84%
Somewhat Unhappy (3)	1,07%	0,93%
Okish (4)	2,39%	2,13%
Neutral (5)	6,81%	5,20%
Somewhat Happy (6)	6,76%	6,04%
Rather Happy (7)	13,91%	12,16%
Quite Happy (8)	19,97%	21,07%
Super Happy (9)	15,80%	18,01%
Extremely Happy (10)	21,09%	27,21%
	100,00%	100,00%

Table 3.7: Male and Female Work-Life Balance Satisfaction during COVID19; Part-& Full-Time vs Full-Time only

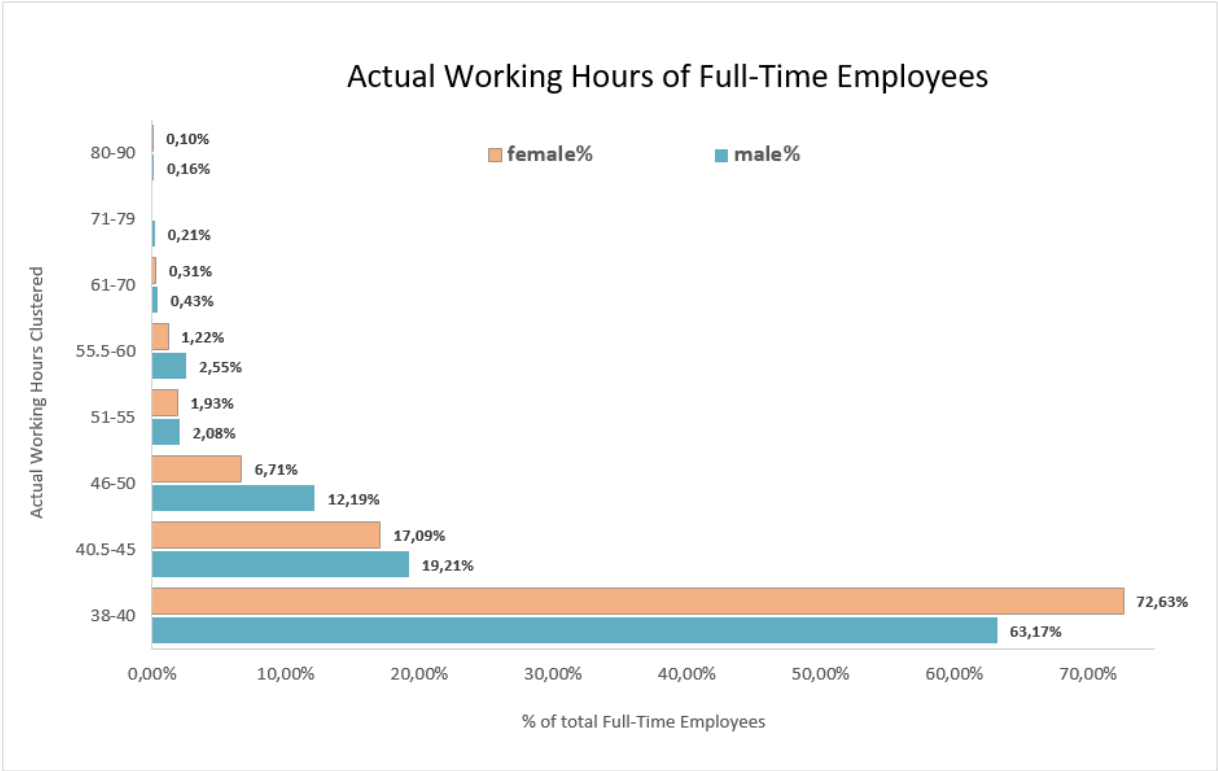

Figure 3.4: Male and Female Overtime Hours in 2021

Another interesting variable for descriptive statistics in 2021 is whether or not employees had the option to switch working modes to home office. One hypothesis of the gender pay gap possibly reducing during COVID-19 is the increased possibility of being able to work from home, thus increasing working flexibility.

As shown in Figure 3.5, 40% of females and 38% of males had the option to work from home in 2021, out of which 20% of both men and women could only partially work from home and 80 % were able to work from home completely. The reasons for not being able to work from home are manifold such as technical difficulties, objection from superior, personal preference or simply not being able performing the task from home such as workers in construction or employees in gastronomy. These reasons not being able to work from home during the pandemic are equally distributed among both genders.

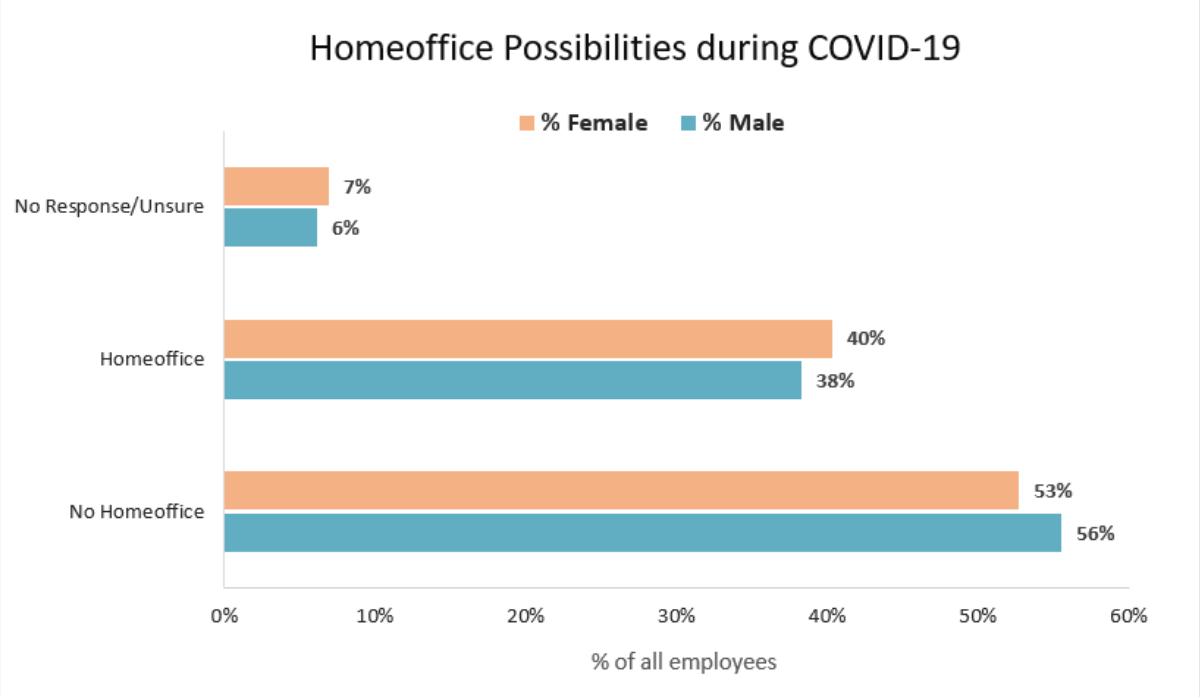

Figure 3.5: Possibility of Working from Home for Men and Women in 2021

After exploring some descriptive statistics for 2021 and highlighting some differences to 2018, the following section investigates the OLS regression results for 2021 and compares and contrasts them to previous 2018 results.

During the COVID19 pandemic in 2021, women in Austria earn, on average, 35.6 % less compared to men without control variables as shown in column 1. The variable coefficient is highly significant and reports a 2 percentage point difference compared to 2018, thus the raw gender wage gap for 2021 has decreased compared to 2018. Specification 1 including age and age squared, similarly to data from the base year 2018, has a rather trivial effect on the female dummy coefficient. Including contract-specific characteristics (specifications 2 and 3) such as hours worked, overtime hours having a fixed-term contract and working more than one job, as expected, has a significant effect on the female dummy coefficient, reducing it to a remaining wage gap of 12.7 %. This dynamic is fairly congruent to the results for 2018, where the gap was reduced to 11.0 % by adding the same contract-specific characteristics. However, in 2018, adding these characteristics had a stronger effect on reducing the raw gap compared to 2021, indicating that the overall weight of these characteristics on the gender wage gap has decreased. The last column in Table 3.8 depicts controlling not only for contract characteristics but also for job characteristics such as work sector and function within the job, which shows even a slight increase in the remaining gap. Compared to the data from 2018, after analyzing the gap controlling for age, contract characteristics as well as specific sector and job function attributes, it can be identified that the remaining gender gap is higher in 2021, despite the overall raw gap being lower in 2021.

Continuing with specification 5 in Table 3.9, which controls for work experience by adding years of working experience as well as age starting the first regular job, it can be seen that this control step reduces the gender gap by 1.5 percentage point to 11.7 %. For 2018, adding experience control variables lowered the gender gap to 9 %. For specifications 6 to 9, which controls for health indicators, spatial conditions such as country of birth and country of work, current education or training was well as previous education or training, the female dummy

coefficient barely changes anymore, which coincides with the regression results from 2018. In 2021, the final and thus, for this model, unobservable gender wage gap is 11.9 %, which is 2.5 percentage points higher compared to 2018. Despite a lower raw gender wage gap of 35.6 % compared to 37.5 % , the remaining and unexplained gender wage gap has increased to 11.9 % in relation to 9.4 % in 2018.

It is crucial to note that the results of this chapter do not display a causal relationship of COVID-19 and the change in the gender wage gap. While there is a timely correlation, a variety of dynamics not being COVID-19 may have caused a change in the gender wage gap from 2018 to 2021.

Regression Results for Control Variable Specifications 1-4 on Log Net Income 2021

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Log Net Income	Log Net Income	Log Net Income	Log Net Income	Log Net Income
Dummy Female	-0.356***	-0.358***	-0.128***	-0.127***	-0.132***
	(0.014)	(0.013)	(0.012)	(0.012)	(0.011)
Age		0.025***	0.028***	0.027***	0.017***
		(0.005)	(0.004)	(0.004)	(0.003)
Age^2		-0.000***	-0.000***	-0.000***	-0.000***
		(0.000)	(0.000)	(0.000)	(0.000)
Amount of Working Hours + Overtime			0.029***	0.029***	0.023***
			(0.001)	(0.001)	(0.001)
Dummy Fixed-Term Contract			0.065***	0.069***	0.066***
			(0.023)	(0.023)	(0.020)
More than 1 Job				0.074***	-0.006
				(0.023)	(0.019)
Constant	7.712***	7.079***	5.794***	5.790***	6.057***
	(0.008)	(0.102)	(0.095)	(0.095)	(0.113)
Controlling for Working Contract Charachteristics	*No*	*No*	*Yes*	*Yes*	*Yes*
Controlling for more than 1 Job	*No*	*No*	*No*	*Yes*	*Yes*
Controlling for Job Characteristics (Sector, Function, etc.)	*No*	*No*	*No*	*No*	*Yes*
Observations	4,250	4,250	4,250	4,250	4,250
R-squared	0.138	0.169	0.498	0.499	0.687

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.8: Regression Results 2021 controlling for Explanatory Variable Specifications 1-4

Regression Results for Control Variable Specifications 5-9 on Log Net Income 2021					
VARIABLES	(6) Log Net Income	(7) Log Net Income	(8) Log Net Income	(9) Log Net Income	(10) Log Net Income
Dummy Female	-0.117***	-0.117***	-0.116***	-0.118***	-0.119***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Age	0.004	0.004	0.004	0.004	0.002
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Age^2	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Amount of Working Hours + Overtime	0.022**	0.022**	0.022**	0.022**	0.022**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Dummy Fixed-Term Contract	0.064***	0.063***	0.062***	0.050***	0.054***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
More than 1 Job	-0.011	-0.013	-0.015	-0.014	-0.033*
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Age starting first regular Job	0.018***	0.018***	0.018***	0.018***	0.014***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Amount of Working Experience in Years	0.015***	0.015***	0.015***	0.015***	0.016***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Chronic Diseases		0.002	-0.000	0.000	-0.003
		(0.011)	(0.011)	(0.011)	(0.011)
Person went to Kindergarden/Preschool					0.016
					(0.012)
Constant	6.028***	6.026***	5.995***	6.020***	6.063***
	(0.111)	(0.109)	(0.111)	(0.113)	(0.116)
Controlling for Work Experience	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Controlling for Health Conditions	*No*	*Yes*	*Yes*	*Yes*	*Yes*
Controlling for Spatial Conditions (Country of Birth and Country of Work)	*No*	*No*	*Yes*	*Yes*	*Yes*
Controlling for Current Training/Education	*No*	*No*	No	Yes	Yes
Controlling for previous Training/Education	*No*	*No*	No	No	Yes
Observations	4,250	4,250	4,250	4,250	4,250
R-squared	0.697	0.698	0.704	0.706	0.712

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.9: Regression Results 2021 controlling for Explanatory Variable Specifications 5-9

Before moving on discussing caveats of the model and the results, the empirical data analysis section is concluded with descriptive data on both the working sector as well as the location of the job. Full- vs. part-time hours worked explained the biggest decrease in the female dummy coefficient in the above regression results for both 2018 and 2021, hence a subsample of employees working full-time only was selected. With this subsample, the largest wage disparities between women and men among the job sector as well as the working location shall be highlighted. Table 3.10 displays sector wage differentials between women and men from the full-time employment subsample. Notably, in the sector of directors and board members

in the legislative body as well as in the academic and comparable healthcare professional sector, an economically significant wage differential between men and women can be found of 806 and 1,659 Euros respectively. Surprisingly, however, four sectors in the subset also record a higher mean monthly wage for females, namely for managers in production and special services, for IT technicians as well as for agricultural specialists and food production assistants.

In terms of spatial wage heterogeneities, Table 3.11 depicts differences in monthly average net wages of male and female respondents distributed among working location using the previous full-time employment subset. For this descriptive statistic, the data set from 2018 was used as from the year 2020 onward, only the nine Austrian provinces and "Working outside of Austria" were included as answer options in the EU-SILC survey. Looking at the descriptive statistics of the subsample, the Austrian regions Tyrol and Vorarlberg both show the biggest wage gap between men and women. Especially in Vorarlberg, women working full-time, on average, earn 758 Euros less per month compared to their male full-time counterparts. With consideration to regions close to the Austrian border, in Liechtenstein females on average are paid 1,240 Euros less per month. In Bratislava, Slovakia, however, men on average earn 500 Euros less per month compared to females. A work location outside of Austria concerns Austrian employees, which at least partly work outside of Austria such as Liechtenstien or Slovakia.

Sector	Mean Net Income (EUR)		
	Male	Female	△
Military Officer	1840	na	na
Military Sergeant	2337	na	na
Military Other Ranks	na	2000	na
Directors or Board Members in Legislative Body	4142	3336	806
Manager Business Area	3082	2657	425
Manager Production and Special Services Area	2703	2974	-271
Manager Hotel/Restaurant or Retail Area	2381	2208	173
Scientist/Mathematician/Ingeneer	2739	2447	292
Academic and comparable Healthcareprofessionals	4060	2401	1659
Teacher	2467	2186	280
Economists, business administration and comparable professions	2671	2269	402
IT Non-and Academics professionals	2603	2417	186
Lawyers, Social Scientists and Cultural occupations	2810	2602	208
Engineer Specialists	2242	2019	222
Medical Assistancy Occupations	2007	1606	400
Business administration occupations Non-Academic	2452	2031	421
Solicitors, Social Scientists and Cultural Non-Academic	1966	1765	201
IT Technicians	2422	2685	-263
Office Worker and Secretary occupations	2443	1665	777
Office Worker with Customer Contact	2258	1679	578
Office Worker in Finance, Statistics, Accounting	1994	1749	246
Other Office Workers	1846	1700	146
Personalized Service Occupations	1534	1256	278
Sales Force (Retail etc.)	1725	1410	315
Care Professionals	1859	1562	297
Security Guards and other security occupations	2343	2067	276
Agricultural Specialist	1424	1867	-443
Forestry and Fishery Specialist	1667	na	na
Construction Specialist	1704	1273	431
Metal and Mechanics Workers	1865	1439	426
Precision crafting, printworkers and other crafts	2037	1750	287
Electrician or Electronics Technician	1962	1517	445
Foodprocessing or Woodprocessing Specialist	1834	1379	455
Plant and Heavy Machinery Operators	1850	1617	233
Assemblers	1765	1493	272
Vehicle Drivers	1865	1683	182
Cleaning Staff and Assistants	1500	1256	244
Mining, Prodcution or Transportation Assistants	1640	1561	79
Foodproduction Assistants	1199	1268	-69
Waste Disposal and other Assistancies	1831	1458	373
	2244	1935	309

Table 3.10: Wage Disparities between Men and Women among the Job Sector

Place of Work	Mean Net Income (EUR)		
	Male	Female	△
Burgenland; Aut	1981	1754	227
Carinthia; Aut	2261	1802	459
Lower Austria; Aut	2119	1893	226
Upper Austria; Aut	2183	1784	399
Salzburg; Aut	2147	2010	137
Styria; Aut	2104	1785	319
Tyrol; Aut	2234	1716	518
Vorarlberg; Aut	2510	1752	758
Vienna; Aut	2432	2205	227
Upper Bavaria; Germany	3080	na	na
Lower Bavaria; Germany	1600	1200	400
Rest of Germany	4100	na	na
South Tyrol; Italy	1900	na	na
Switzerland	3770	na	na
Liechtenstein	4240	3000	1240
Bratislava; Slovakia	3800	4300	-500
Other	4600	3000	1600
	2244	1935	309

Table 3.11: Wage Disparities between Men and Women among the job locations

3.5 Potential Caveats

A major assumption made for the OLS econometric model used for the empirical analysis is that on average, male and female are systematically similar in their wage-determining characteristics. This is certainly true for some covariates but not for all of them. As for education, age and years of experience, for example, there is no substantial difference between men and women in the data set. Yet indeed, a significant systematic difference appears when looking at the distribution of men and women working in part-time and full-time employment as well as for job sectors. Women, on average, systematically allocate less hours for paid work. Another systematic difference between women and men, although less extensive, is the sector of employment. Men tend to work, on average, in more technical, STEM and management jobs, whereas women, on average, over-proportionally work in sectors related to care and teaching (Köppl-Turyna 2019). Due to the presence of systematic differences for these covariates, the unexplained gender pay gap in the empirical results of this paper may be overestimated. Despite a potential overestimation of the unexplained female dummy coefficient in the model, the causal effect of being female on average net wage is still valid.

Another way to possibly decompose wage structures and accounting for a potential systematic difference in a covariate is by using the Blinder-Oaxaca decomposition model, which would create two data subsamples, namely one female and one male. However, adding this econometric decomposition approach is beyond the scope of this paper.

Chapter 4

Selected Policy Recommendations

Moving on to policy recommendations taking on the challenge of reducing the gender pay gap, based on the OECD and Austrian results, policy makers can emphasize on two separate policy elements:

The first aspect regards the raw and thus somewhat explainable gender pay gap of around 40% for the Austrian dataset in 2018 as well as 2021. For the OECD aggregates, the raw gender pay gap unfortunately was not available. One might view that this percentage of 40% raw gap does not really matter as over half of the 40% Austrian raw gap is explainable by one productivity differential, namely working full- vs. part-time. Yet I argue that especially the raw gender pay gap should be of utmost importance to policy makers, especially considering long-term effects by reason of this raw gender wage gap. Bastos et al. (2009) show that labor market differentials such as the raw gender pay gap leave women with a higher risk of being in old-age poverty compared to males. In the case of Austria, around 50 % of women work part-time only and thus paying a significantly less amount to their retirement contributions while being in employment. When retiring, the amount of pension payments received are much lower for prior part-time wages compared to full-time wages. Thus, when retiring, previous part-time employees receive a tight pension payment, often not exceeding the minimum pension amount (Yeoh and Biller 2020). As another consequence, old-age poverty in turn does not only affect the individual itself but also the economy as a whole as purchasing power and consumption decreases. From a macroeconmic perspective, Stotsky (2006) also finds that tackling the raw gender pay gap improves macroeconomic stability and

can enhance economic growth (Kennedy et al 2017).

The second aspect of the gender pay gap is policies focusing on the remaining unexplained gender pay gap, thus after accounting for major productivity differentials (Blau and Kahn 2017). In the above explored data analysis for Austria in 2021, this unexplained gender pay gap is 11.9%, respectively. On the one hand, the remaining 11.9% gender wage gap might indeed be based on discrimination, hence policy makers face the challenge for structural change. Yet on the other hand, it is argued by labor economists that the remaining unexplainable gender pay gap may be due to non-measurable factors such as negotiation skills (Stevens et al. 1993). The following policy recommendation section explores a subset of four different policies emphasizing on either reducing the raw or the residual gender wage differential.

4.1 Flexible Job Schemes

As demonstrated in the second part of the paper, a big chunk and hence explainable part of the gender wage gap are part-time vs. full-time hours worked on the job. Out of the 40% raw wage differential of men and women, almost 20 percentage points can be attributed towards working full- vs. part-time. Women choosing to work part-time rather than full-time is not an issue per se. It may become of interest to policy makers, however, if this disparity has unintended consequences. As previously mentioned, women are much more likely to suffer from age-poverty compared to their male counterparts due to wage differentials such as working part-time vs. full-time (European Commission 2015). What is more, it can be argued that women choosing part-time rather than full-time is not a choice after all. Among others, Wodon & de la Briere (2018) thoroughly analyze that unpaid work such as unpaid care work for children or the elderly is distributed highly unequal among genders. Women are still expected to do the lion's share of such work and hence, both males and females are also socialized from early childhood in such a way (Mader & Schneebaum 2013). Such expectations also coin one's decisions: The breadwinner model is still the main socioeconomic family care model (Ciccia and Verloo 2012), especially in Austria. The average male works full-time and acts as the main breadwinner (within families) whereas women,

especially after delivering the first child, are committed to child-rearing and other forms of unpaid care work and hence mostly contribute to the family income with a part-time job (Ciccia and Verloo 2012; Statistik Austria 2020). Such rigid family earnings structures were harshly reinforced during the spread of the pandemic of COVID-19 and follow-up quarantine restrictions. Women increased the share of unpaid labor regarding child and other care work during the pandemic (Derndorfer et al 2021). Breaking up such gender-structures is most definitely a herculean and monumental task. However, an adequate policy framework can indeed aid fostering both unpaid as well as paid work to be more equally distributed among females and males. One policy option is allowing for more flexible work schedules for both men and women. Especially women often face the "choice" between staying home to do unpaid care work or join the labor market. On the other side of the table, more men wish to work part-time instead of full-time, yet most career options and employers do not provide sufficient options for part-time and flexible work schedules (Burnett et al 2012). Supply-side oriented policy such as incentivizing employers to provide more flexible working schedules on all career levels might be a way to combine both sides of the table. Possible state incentive schemes can include for example a tax bonus on income or corporate taxes for employers providing more flexible working opportunities. It eases the choice for women entering the workforce and not having to decide between career or care work and enabling men to engage in less paid work.

4.2 Parental Leave

Among the OECD, many countries provide benevolent parental leave policies, especially for mothers (OECD 2016). These benevolent policies, however , often reinforces gender stereotypes as well as highly unequal division of paid vs. non-paid labor. On the one hand, indeed generous parental leave policies enable financial security for families, yet most of these parental leave policies are not designed for both parents but mostly for mothers only, hence promote maternal leave (Datta Gupta et al. 2008). Datta Gupta et al. (2008) importantly note that extensive maternal leave policies de factro subsidize child rearing of mothers in the home, which is the down side of generous maternal leave schemes. Seemingly benevolent

maternal leave schemes existing in many OECD countries such as Austria incentivize mothers to choose unpaid care work instead of joining the labor market (again), hence increasing the reservation wage for women (Datta Gupta et al. 2008). Such generous maternal leave schemes can indeed reinforce gender pay gaps (Agenda Austria 2019). Instead of promoting maternal leave schemes, policy can shift toward actual parental leave programs. Instead of providing parental leave mostly for women, policy makers should redesign these schemes in a way that grants parental leave both for mothers and fathers. If both fathers and mothers would equally share child rearing responsibilities after birth, statistical discrimination towards women would also decrease. Statistical discrimination describes rational discrimination employers make based on the likelihood of women leaving the labor market due to potential maternal leave (Borjas 2013). Statistical discrimination towards women is much less rational if the likelihood of both fathers and mothers leaving paid work for parental leave is equally distributed. Such a policy is especially feasible in combination with the previous policy proposal, namely more flexible work schedules for both men and women on different career hierarchies. Even though many countries already provide a parental leave for both fathers and mothers, the demand for parental leave of fathers is extremely low, which is highly correlating with inflexible work schedules and opt-out parental leave possibilities for fathers (Datta Gupta et al. 2008). A state intervention policy promoting paternal leave can increase more equal unpaid child rearing and in turn foster women to join the labor force (Haas 2003). Such a policy promoting paternal leave is existing for example in Norway. The Norwegian parental leave system allows for a total of either 46 weeks or 56 weeks parental leave (depending on the choice of payment scheme), out of which 10 weeks have to be taken by the father and those 10 weeks are not transferable to the mother of the child. If the father does not make use of the 10 weeks parental leave, the total parental leave weeks are reduced by the 10 weeks (norge.no n.d.). With such a "dad-quota", over 90% of Norwegian fathers take parental leave (Apolitical 2018). As parental leave schemes are a matter of national policy, such gender-sensitive parental leave policies fostering paternal leave can influence gender stereotypes and the distribution of paid and unpaid work and hence also the gender wage gap.

4.3 Gender Pay Standards among Firms

For a holistic policy setting approach, policy making should not only focus on national macroeconomic settings but also on micro-level policies improving the gender pay gap. This policy especially caters towards reducing the second wage gap element, namely the unexplained gender pay gap possibly indicating wage discrimination based on gender. An equal gender pay standard is a policy that is based on a job-evaluation tool on a firm-level basis and its main aim is to ensure equal wages for all employees for the same types of jobs and jobs of equal value, eradicating discrimination and biases based on gender or other identification factors (Kristjánsdóttir n.d.). The human resource tool is especially designed to correct for gender differences and hence, the tool itself is sensitive towards possible gender discrimination in the survey. The first country introducing a gender pay standard that is legally binding for all large companies (more than 25 employees) is Iceland, which requires these large firms to obtain an equal pay standard certificate (Olafsdottir 2018). Before becoming legally binding for all large Icelandic firms in 2018, it was already possible to obtain the certificate on a voluntary basis. Since 2018, large Iceland firms must prove that they have no unexplained wage gap based on gender discrimination within their firm. In practice, a company has to set up a payroll structure with transparent payroll criteria and evaluation. This indicates that an Icelandic firm also inherently needs to understand how initial wages of their employees are determined and hence, can be evaluated transparently (Wagner 2018). The implementation of the equal payment certificates indicates as well that companies, in a first step classify types of jobs of equal value within their company and evaluate current firm wage policies, These payroll criteria and its evaluation are reviewed by independent bodies. As an evaluation method for the equal pay standard, companies set up four assessment criteria, namely knowledge (including work experience and education), competencies (including communication skills or on-job independence), responsibilities (including customer service, financial responsibilities, staff or project management) and work environment (including work conditions or emotional and physical stress), however different companies may have different sub-categories of the main categories knowledge, competencies, responsibilities and work environment depending on the sector and size of the firm. Based on these assessment cri-

teria, objective and comprehensible classifications of individual employees have to be made (Wagner 2018). In a last step, independent third-party institutions monitor the equal pay standards of individual companies and their assessment and issue a certificate of equal pay for the respective company (Kristjánsdóttir n.d.). After receiving the certificate of equal pay standards, which has to be renewed every three years, each firm has to annually publish the equal pay assessment available to all employees of the company (Olafsdottir 2018). If companies do not receive a certificate set by the national deadline, a fine of approximately 400 Euro per day is issued (Wagner 2018). With this employer-based wage evaluation strategy, companies do not only have an effective tool to check company-based biases but also have an adequate mechanism to contemplate and evaluate the company's actual wage payment decision to begin with. This gender pay evaluation tool, however, only tackles sensitivities regarding equal pay for equally valuable work on a in-firm basis. An equal pay in-firm tool cannot account for wage differences among sectors ("male vs. female jobs") nor can it reduce wage differentials based on full- vs- part-time work. Nonetheless, promoting a policy tool to ensure equal pay for equally valuable work can certainly reduce the unexplained gender wage differential and thus, act as effective microeconomic company-based policy reducing the gender wage gap overall (Olafsdottir 2018, Wagner 2020).

4.4 Transparent payroll data

Another employer-based policy regards insuring more transparent payroll communication and data among workers, that is prohibiting wage secrecy and enforcing employers to publish payroll data within the company. Impeding wage secrecy has been a key policy measure to decrease a gender wage gap in many US states such as California and Colorado (Institute for Research and Labor Employment 2018). Employment wage secrecy forbids workers of a specific firm to openly discuss wages with colleagues. However, the Institute for Research and Labor Employment at the University of California, Berkeley (2018) argues that open discussion on payroll among colleagues is one of the key determinants of recognizing gender discrimination within a company. As already mentioned, often a key explanation for the unexplained gender wage gap is a difference in negotiation skills of men and women. It

is argued that a policy intervention aiming towards more transparent wage conversations among colleagues can identify such negotiation differences (if present) and allows females to renegotiate their salaries (Institute for Research and Labor Employment, 2018). Kim (2015) finds that indeed, such legal measures of ensuring prohibition of payroll secrecy leads to a decrease in the gender wage gap. A policy going one step further is payroll transparency within a firm. The practical implications are simple: Firms have to openly disclose what their employees are paid and the wage data is openly available to all employees. Bennedsen et al. (2020) as well as Abudy and Aharon (2023) do find evidence of a decreasing gender wage gap as a result of more transparent wage data within a company, however the authors also argue that possible unintended consequences are lower average wages in total within that firm. The wages seem to be lower on aggregate, on average (although interestingly the overall firm profitability does not decrease) but more equally distributed on a firm level (Bennedsen et al. 2020). Designing policies enabling more open communication about salaries thus fosters a decrease in both the unexplained and explained gender wage gap.

Chapter 5

Conclusion

The aim of this paper was to empirically analyze the gender pay gap in Austria for the years 2018 and 2021 in more detail using cross-sectional EU-SILC data. Using an OLS model accounting for major wage-determining observable characteristics, the empirical evidence from the year 2018 and 2021 show that a majority of the raw gender pay gap can indeed be explained by full- vs. part-time employment, but changes little once accounting for hours of work. In 2021, during the COVID-19 pandemic in Austria, the raw gender pay gap decreased by 2 percentage points compared to 2018, whereas the unexplained gap increased by 2.5 percentage points. While the remaining unexplainable Austrian gender wage gap of 11.9 % in 2021 should not be fully interpreted as discrimination based on sex, it can be concluded to certainly contain discrimination due to gender masked as non-observable characteristics (Blau and Kahn 2017). Additionally, this paper provided an overview of gender wage gaps across countries in the OECD, with South Korea indicating the highest and Belgium the lowest gender wage gap.

Independently of cultural or social context, changing persisting gender norms which are inherently causing a gender wage gap, be it raw or unexplained, is a bold and arduous endeavour for any society across the globe. Certainly, there is no "one-size-fits-all" policy changing the gender wage gap. Yet there is evidence that well-designed policies can have an impact on the pay gap as well as how gender norms are perceived. A key factor for policy makers in addressing the gender pay gap is re-distributing both paid and unpaid labor, which in turn address both observable factors such as part-time and full-time employment as well as unobservable factors such as statistical discrimination influencing the gender pay gap.

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