

**Determinants and Consequences of Female
Labour Force Participation in Jordan: A
Mixed Methods Approach**

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I. Table of Contents

I. Table of Contents	2
II. List of Tables	5
III. List of Figures	5
IV. List of Abbreviations	7
V. Abstract	8
VI. Declaration	9
VII. Copyright	10
VIII. Acknowledgments	11
CHAPTER 1 INTRODUCTION	12
1.1 Thesis overview	12
1.2 Overview of the Jordanian labour market	17
1.3 Women's economic participation in relation to the evolution of the Jordanian labour market and economy	23
1.4 The missing link in explaining women's labour force participation in Jordan	29
1.5 Research questions	37
1.5.1 Gender wage inequality	38
1.5.2 Occupational choice	40
1.5.3 Maternal employment	41
1.6 Structure of thesis	43
CHAPTER 2 GENDER GAPS IN THE DISTRIBUTION OF WAGES IN JORDAN: ALLOWING FOR SAMPLE SELECTION ADJUSTMENTS	44
2.1 Introduction	44
2.2 Literature review	47
2.2.1 Within group inequality	47
2.2.2 Between group inequality and the gender gap	48
2.2.3 Selection into the labour market	50
2.2.4 Literature on Jordan	52
2.3 Method	53
2.4 Empirical specification	57
2.5 Data and Jordanian context	63
2.5.1 Data description	63

2.5.2 Comparative characteristics of employed and not employed persons	63
2.6 Preliminary analysis of labour market participation trends and wages	66
2.6.1 Probit results	66
2.6.2 Wage quantiles and occupations	69
2.7 Selection corrected wage distributions	74
2.7.1 Within group inequality	76
2.7.2 Between group inequality	79
2.8 Policy Discussion and Conclusion	82
2.9 Appendix	85
CHAPTER 3 JORDANIAN WOMEN TRANSCENDING GENDER NORMS: A QUALITATIVE ANALYSIS OF NON-TRADITIONAL WORK	88
3.1 Introduction	88
3.2 Conceptualising norms and Jordanian women’s economic participation	90
3.2.1 The Gender and Development framework and norms	90
3.2.1 Amman, Jordan in context: Class, norms and women’s employment	91
3.3 Concepts, sample and method	96
3.3.1 Non-traditional jobs defined	97
3.3.2 Selection of interviewees	98
3.3.3 Vignette construction	101
3.4 To conform or deviate: perspectives and positioning of femininity and class	102
3.4.1 Class resentment and redefining prescribed roles	107
3.4.2 Elite dignity and performativity of class in maintaining femininity	108
3.5 Navigating social norms: “I’m not doing anything unusual”	111
3.5.1 Challenging the family view on non-traditional jobs	113
3.5.2 Manoeuvring stereotypes held by male colleagues	117
3.5.3 Performing class and maintaining the cultural gap	121
3.6 Conclusion	124
CHAPTER 4 THE IMPLICATIONS OF MATERNAL EMPLOYMENT ON EARLY CHILD DEVELOPMENT: HOUSEHOLD LEVEL EVIDENCE FROM JORDAN	126
4.1 Introduction	126
4.2 Literature review	128
4.2.1 Parental time	128
4.2.2 Informal care	131
4.2.3 Formal care	133
4.2.4 Other resources	135
4.2.5 Household Bargaining, intra-household resource allocation and women’s autonomy	136

4.3 Method	138
4.4. Empirical specification	143
4.4.1 ECD determinants	143
4.4.2 Maternal employment determinants	149
4.5 Data description and statistics	151
4.6 Empirical analysis	157
4.6.1 Determinants of women's employment	157
4.6.2 Association between maternal employment on early child development	160
4.7 Conclusion and policy recommendations	165
4.8 Appendix	169
CHAPTER 5 CONCLUSION	170
5. 1. Summary and lessons learnt	170
Part 1: Gender wage gap	170
Part 2: Occupational choice	172
Part 3: Maternal employment	173
5.2. Contribution to knowledge	175
5.3. Limitations	179
5.4. Possibilities for future research	182
5.5. Concluding remarks	183
BIBLIOGRAPHY	186

Word count: 54,918 words

II. List of Tables

Table 1-1 Honour killings as percentage of total killings, 1986– 1999.....	26
Table 2-1 Commuting percentages for men and women	62
Table 2-2 Descriptive statistics of employed and not employed men/women	65
Table 2-3 Results of probit model.....	68
Table 2-4 Hourly log wage, by gender.....	70
Table 2-5 Wage quantiles (hourly, log wages) across occupations, by gender.	72
Table 2-6 Distances (in kilometres) between governorates.....	85
Table 2-7 Composition of professional occupations in private and public sectors at the 50 th percentile, shares calculated by gender	85
Table 2-8 Results of quantile regression model corrected for selection.....	86
Table 3-1 Occupations of women interviewed and breakdown of characteristics of non-traditional jobs.....	98
Table 3-2 Characteristics of interviewees.....	99
Table 3-3 Motives to work in non-traditional jobs	103
Table 3-4 Analytical summary of strategies utilized by women in non-traditional jobs	112
Table 4-1 Descriptive statistics for parental and household characteristics.....	152
Table 4-2 Percentage of children who are developmentally on track for indicated early childhood development dimensions, by select parental and household characteristics.....	156
Table 4-3 Treatment effect of maternal employment on Early Child Development	159
Table 4-4 Items included in Early Child Development Index	169

III. List of Figures

Figure 1-1 Real GDP growth rate.....	17
Figure 1-2 Tertiary education by gender	18
Figure 1-3 Labour force participation by education and gender.....	19

Figure 1-4 Unemployment rates by education and gender.....	20
Figure 1-5 Average monthly wages (Jordanian Dinar) by education and gender	21
Figure 1-6 Employment rate and average monthly wages across occupations and gender.....	22
Figure 1-7 Sectors of employment by gender.....	22
Figure 1-8 Number of persons employed in Jordanian export processing zones from 2001-2010.....	25
Figure 1-9 Percentages of male and female references in images, illustrations and text.....	27
Figure 2-1 Results of quantile regression model corrected for selection.....	75
Figure 4-1 Child engagement in learning activities in the past three days with household members.....	154

IV. List of Abbreviations

DHS	Demographic Health Survey
DoS	Department of Statistics (Jordan)
ECD	Early Child Development
ECDI	Early Child Development Index
ERF	Economic Research Forum
FDI	Foreign Direct Investment
FLP	Female Labour force Participation
GAD	Gender and Development
GDP	Gross Domestic Product
ILO	International Labour Organisation
IV	Instrumental Variable
IMF	International Monetary Fund
JLMPS	Jordan Labour Market Panel Survey
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development

V. Abstract

This thesis critically examines women's participation in paid employment in Jordan. I explore three dimensions: the gender wage gap, the influence of norms on occupational choice, and the implications of maternal employment for child welfare. The analysis moves beyond traditional economic approaches to also incorporate a sociological interpretation of social norms and class. It is a combination of quantitative analysis using the 2010 and 2015 Jordan Labour Market Panel Survey (JLMPS) and the 2012 Jordan Demographic Health Survey (DHS), and qualitative analysis based on data collected through semi-structured interviews conducted in Amman, Jordan in 2017. The quantitative analysis on the wage gap suggests that glass ceilings and sticky floors persist due to the caveat of employment in occupations that do not conform with social norms. However, women in governorates with ample job opportunities and networks of support are more likely to be employed and benefit from wages at par with those of men. The qualitative analysis of women in non-traditional jobs shows that the decision to conform or deviate from norms is dependent on femininity and class. The strategies used to encourage and support the transcending of norms range from directly confronting existing problems to the creation of 'enclaves' that preserved norms rather than challenged them. The second part of the quantitative analysis shows that the influence of maternal employment on Early Child Development (ECD) is complex and varies by age group of the child. The evidence also suggests that large-scale child development facilities in Jordan are lacking in availability and quality and shows that it is a restriction for both female labour supply and early child development. Overall the thesis shows that there is a spectrum of socio-cultural and economic challenges that individual women face, and in turn, there is a spectrum of dynamic efforts by women to engage in the labour market. Another considerable result to note is that the women who are likely to be employed are the ones who have conditions that can ensure higher wages and positive outcomes for children, and thus are able to advocate for a change in gender norms and relations. In addition to its conceptual contributions, this thesis offers both methodological and policy contributions. The use of novel and sophisticated econometric methods and interview techniques give rise to critical insights on the nuances of female labour force participation including intra-group and inter-group inequalities in access to quality employment and childcare and strategies for transformative change. The policy contributions are underpinned by the need to recognise social norms and structural inequalities which do not reproduce power structures, prioritise women's wellbeing and autonomy and aim to encourage positive gender relations and cross-class collaboration.

VI. Declaration

No portion of the work referred to in this dissertation has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Chapter 1 Introduction

1.1 Thesis overview

This thesis combines the elements of human capital, sociology on the norms of work and feminist scholars' theorisations of the division of labour to study women's participation in the paid labour force in Jordan. I specifically examine the determinants and consequences of female employment through three avenues: the gender wage gap, the influence of norms on occupational choice and the implications of maternal employment for child welfare. The central argument this thesis makes is that patterns of FLP (female labour force participation) in Jordan reveal an unlevelled playing field characterised by structural differences among governorates, as well as interwoven with notions of femininity and class. I conclude that there is a spectrum of socio-cultural and economic challenges, and accordingly, the wage penalties, welfare outcomes for offspring and extent to which norms are confronted differs among women.

Development aid to the Middle East often encompasses a large component targeted to women's empowerment through work (Tadros, 2010). The typical message often relayed is that women can unleash the potential of GDP growth (Tadros, 2010). Based on this 'efficiency' argument, research claims that gender equality in labour market participation can add \$128 trillion to the global economy (Woetzel et al., 2015). However, focusing on FLP through tunnel vision does not bring the win-win outcome as promised (Doss, 2017). Rather, pushing FLP for the sake of economic growth has proven to enforce and widen gender pay gaps (Seguino, 2000), leave structural issues such as access to finance

and land unresolved (Kabeer, 1994; Doss, 2017), neglect the welfare of children (Folbre and Bittman, 2004) and has not necessarily reduced gender based violence (Walby, 2003). As such, the ‘equity’ argument calls for scrutiny among unpaid care work (Folbre et al., 2013; Razavi, 2017), quality of jobs (Giullari and Lewis, 2005; Verick, 2014) and type of indicators used to robustly measure the benefits of increased FLP (Razavi, 2017). Even when aiming to increase FLP through policies, various forms of inequality remain or are perpetuated. Thus, it is imperative to consider transformative policies– that is, approaches to FLP that tackle deep-rooted structural inequality, whether between genders or among women themselves.

To achieve transformative outcomes of FLP a balanced synergy between matters of economic justice and gender justice is necessary. That is, it is necessary to distinguish between the practical and strategic needs of women (Moser, 2012). However, while feminist efforts in developed countries are directed to questions of sexuality and identity, practical material concerns such as financial stability are among the main areas of research and policy focus in developing countries remain significant for gender equality and are en route to autonomy and gender justice, therefore meeting strategic needs (Beneria et al., 2016). A case in point is the difference in outcomes of FLP, where richer women may benefit from greater access to employment opportunities as a platform to utilise their education is opened, however, poorer women may be adversely pushed into low-paying, precarious jobs (Beneria et al., 2003). In fact, under maternal employment, outcomes of FLP can vastly differ among women of high socioeconomic status who are more able to earn higher wages and access childcare than women of low socioeconomic status (Pugo and

Soto, 2018). Whereas employed mothers of high socioeconomic status can afford to evade imposed patriarchal responsibility of being primary caregivers, low income employed women struggle as quality childcare can be practically inaccessible to employed women of low education and low income (Ilkcaracan, 2012; Pugo and Soto, 2018). Subsequently, with regards to labour force participation, it comes as no surprise that working-class women attempt to avoid employment, knowing the struggles that come with it (Humphries, 1977; Espino et al., 2016). There are inherent divides in power, knowledge and resources among women themselves that may also be aggravated by economic activities (Kabeer, 1994, ch.4). As such, abilities to deal with patriarchal order or gendered norms affect women of various classes differently. The consequences have long-lasting implications for offspring and exacerbate inequality among households. For example, high income households, particularly of the dual earning type, are more able to invest in their children's education, health and extracurricular activities through high quality childcare arrangements than low income households (Buckles, 2012). In this sense, understanding, analysing and addressing the material determinants and outcomes of FLP can retain strategic gender implications given that the centrality of inequality of opportunity is recognised and hence lead to transformative outcomes (Beneria et al., 2003).

The case of women's employment in Jordan is one of great interest for several reasons. It is worthwhile exploring not only because of the infamous paradox of highly educated women yet consistently low labour force participation (Assaad, 2014) but also due to instrumentalisation of women's right to maintain aid flows – yet an absence of outcomes (Kilby,

2018). As such, one should be wary of underlying motivations when studying FLP as the determinants and consequences may conflict with the terms of achieving transformative change. It must be strongly reiterated that while female employment is an important issue – i.e. improving quality of lives through bringing in necessary extra income – it is by no means a measure of improved empowerment dynamics. To be concerned with transformative outcomes for Jordanian women’s employment is to understand gendered dilemmas that come with employment in the public sphere, issues of household wellbeing, and women’s autonomy. In short, it is to be concerned about social change. While this thesis examines the determinants and consequences of women’s participation in the labour force in Jordan, it is also concerned with the contestation of transformative gender norms. Additionally, there are issues of inequality of opportunity and socioeconomic disparities in Jordan (Krafft and Assaad, 2016) that are rarely examined in line with gender yet require examination.

In the literature on women’s employment in Jordan, there is a gap between economists and non-economists’ studies. While development economists have moved from traditional “rational choice” explanations to incorporate interdisciplinary based concepts such as capabilities (Nussbaum and Sen, 1993; Sen, 1999), culture (Akerlof, 2007; Baxter, 1993; Guiso et al. 2006; Jackson et al. 2012) and class (Akerlof, 1997; Bagwell and Bernheim 1996; Becker and Murphy 2000; Benabou 2000; Besley and Ghatak 2008; Ellingsen and Johannesson 2007; Zafirovski, 2015) as explanatory factors in elucidating social phenomena, the Jordanian literature is yet to combine economics and sociological factors. Despite the important trends and dynamics of the Jordanian labour

market that have been identified through economic analysis, a shortcoming of the Jordanian literature on FLP is not accounting for socioeconomic differences among women and insufficient treatment of social norms.

The contribution to knowledge this thesis offers is a deeper understanding of the underlying factors of women's economic participation in paid employment in Jordan. The core strength of this thesis is that socioeconomic differences among women and the subsequently different norms women face are recognised and integrated into the analysis. By depicting the spectrum of socio-cultural and economic challenges that individual women face, this thesis ultimately makes the case that in turn there is a spectrum of dynamic efforts by women to engage in the labour market. Consequently, an important analysis of intra-group inequality - effectively inequalities among women – is produced. Through shedding light on everyday socio-cultural resistance in Jordan, a depiction of transformative social change across socioeconomic groups is relayed. Finally, this thesis conveys insight into alternative mechanisms for cross-class collaboration, pioneers and role models in transcending social norms emerging from women from a variety of socioeconomic backgrounds.

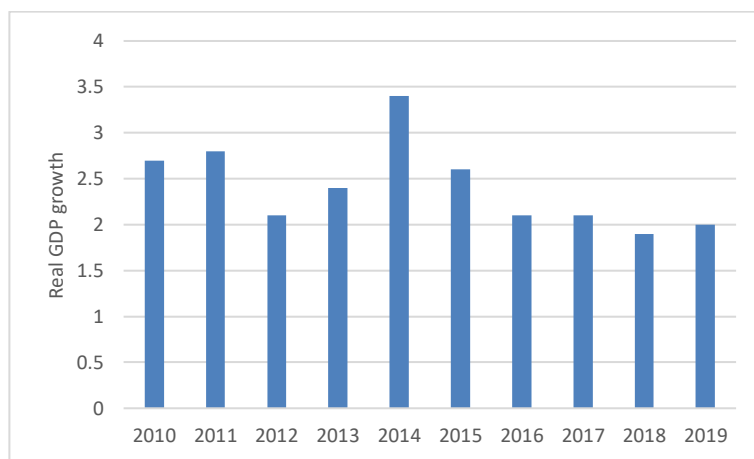
The definition of employment throughout this thesis refers to paid employment. This incorporates both formal work, which are jobs that offer a contract or social security, and informal work, which are jobs that do not offer a contract and social security. The scope of this thesis is limited to women of Jordanian nationality and does not include migrant workers. The reason being that the 2010 round of the employment survey

(Jordanian Labour Market Survey, JLMPS) used in the first empirical chapter does not adequately cover migrant labour in its sampling.

1.2 Overview of the Jordanian labour market

Jordan is a resource scarce, lower middle-income country. The economy has been experiencing low economic growth rates for the last ten years¹. According to the IMF World Outlook, the average annual GDP growth rate is 2.41%. As the figure below shows, after the peak in 2014, real GDP growth slowly declines dropping from 3.4% change in 2014 to 2% in 2019.

Figure 1-1
Real GDP growth rate



Source: IMF country data

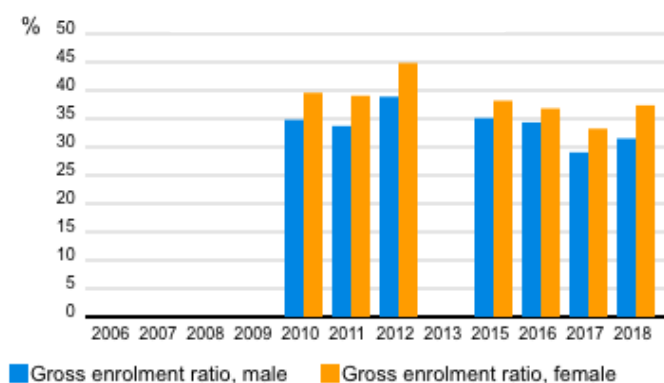
Additionally, the Jordanian economy has been affected by a series of crises, conflicts and wars in neighbouring countries since 1948 (Patai, 2015). Namely, the inflow of refugees adds strain to scarce resources. The latest Housing and Population Census of 2015 reported a population of

¹ <https://www.imf.org/en/Countries/JOR#countrydata>

9.5 million. Jordanians account for 69.4% of the total population. Of the remaining 30.6% non-Jordanians, 1.3 million are Syrians and 656 thousand Egyptians. Other main countries of origin of non-Jordanians include Palestine, Iraq and Yemen.

The population is one of the youngest in the world, with 63% of the population being under the age of 30. There are 2,84,991,6 students currently in educational institutions. In 2018, the value of the Human Development Index in Jordan was 0.723. This positions the country in the high human development category – that is, Jordan ranks 102 out of 189 countries and territories. Regarding the Gender Gap Index, however, Jordan falls far below the global average. In 2018, Jordan ranked 138 out of 149 countries. While achieving progress in women’s health and education, economic participation and political empowerment rank exceptionally low. For example, as figure 1-2 shows, gross enrolment ratios for women are higher in tertiary education than for men.

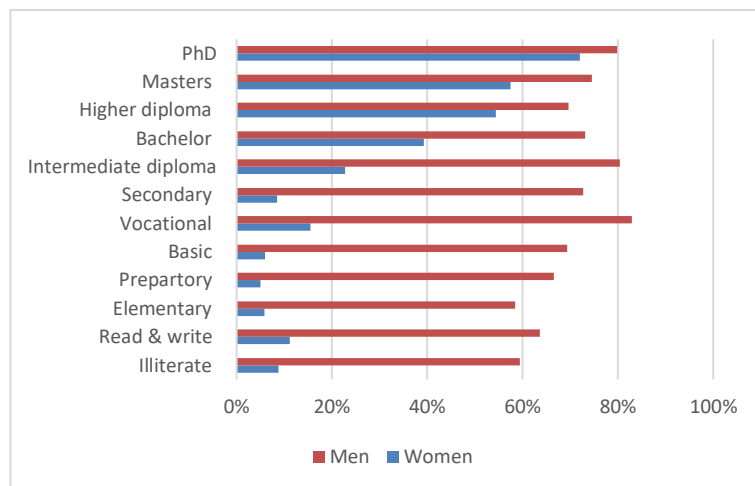
Figure 1-2
Tertiary education by gender



Source: UNESCO country data

Despite progress in women’s educational attainment, women’s labour force participation at 15% is considerably inferior to men’s labour force participation at 69%. Upon closer inspection, it can be seen from figure 1-3 that labour force participation varies significantly across educational levels. For example, women with vocational education participate in the labour force less than women holding a master’s degree by almost 4 times (15% and 57% respectively). By contrast, women holding a PhD, have participation rates close to men (72% and 79% respectively). However, even among the university educated, the labour participation gap is still large. The participation rate of women holding a bachelor’s degree is only 40% compared to 73% of men holding a bachelor’s degree.

Figure 1-3
Labour force participation by education and gender

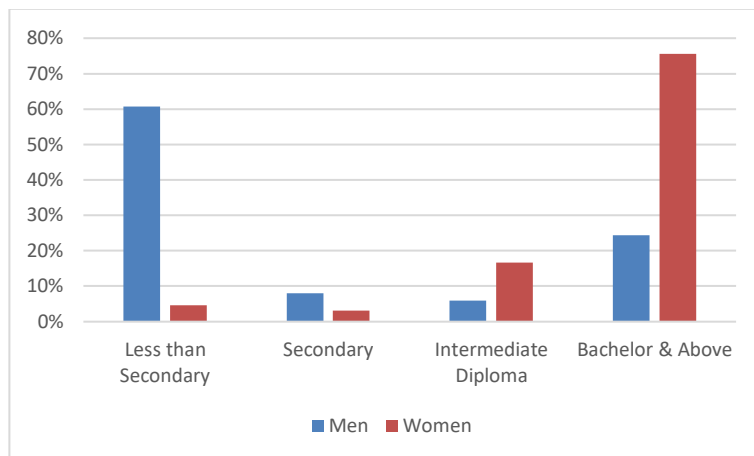


Source: Population and Housing Consensus 2015

In spite of highly educated women’s participation in the labour market, figure 1-4 shows that educated women suffer the most from high unemployment rates than men. Women with university level education, (bachelor and above) face unemployment levels over 70%.

Unemployment rates are pointedly higher for university educated women than university educated men. Thus, it is reasonable to conclude that highly educated women wish to partake in the labour market, however face less opportunity.

Figure 1-4
Unemployment rates by education and gender

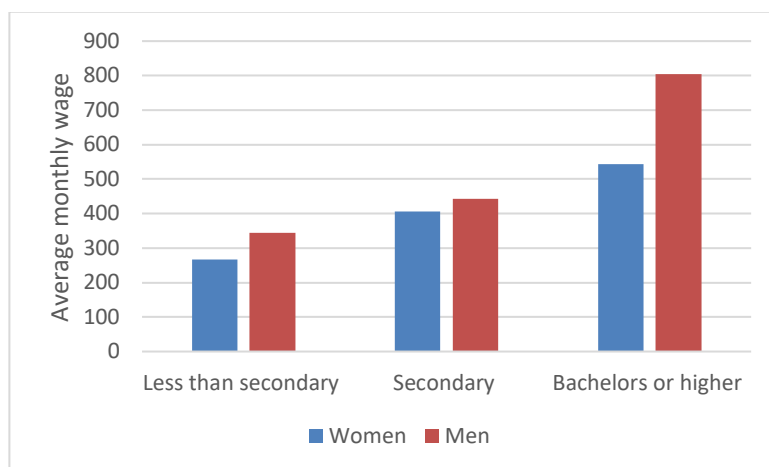


Source: Employment and Unemployment Survey, 2015

Gender gaps in other aspects of the labour market are also pervasive. According to the department of statistics, in 2015 the average monthly wage for men was 507 Jordanian Dinars and for women 458 Jordanian Dinars (JDs). Figure 1-5 shows the average monthly wages for men and women by education level. Across all educational levels, men's average wages are higher, albeit at the secondary level men's wages are rather close to women's wages. The largest difference is found among the university educated. On average, the monthly wage for university educated women is 543 JDs compared to 805 JDs for university educated men.

Figure 1-5

Average monthly wages (Jordanian Dinar) by education and gender



Source: Department of Statistics (2015)

Disparities in wages among men and women across occupations also differ. Figure 1-6 shows the wages for men and women across occupations. The largest differences in wages are at high paying occupations such as managers, where women on average earn 1,030 Jordanian Dinars monthly compared to men who earn 1,466 JDs monthly. This is a 30% difference. However, the percentage difference is larger in low paying occupations such as craft and related trade, reaching 36%. At this occupation, women earn an average of 240 JDs monthly compared to men who earn 374 JDs monthly. Figure 1-6 also presents the gender gap across occupations. Men's employment across occupations is more dispersed than women's. Women are concentrated in professional occupations, capturing 15% of the total labour market.

Figure 1-6

Employment rate and average monthly wages across occupations and gender

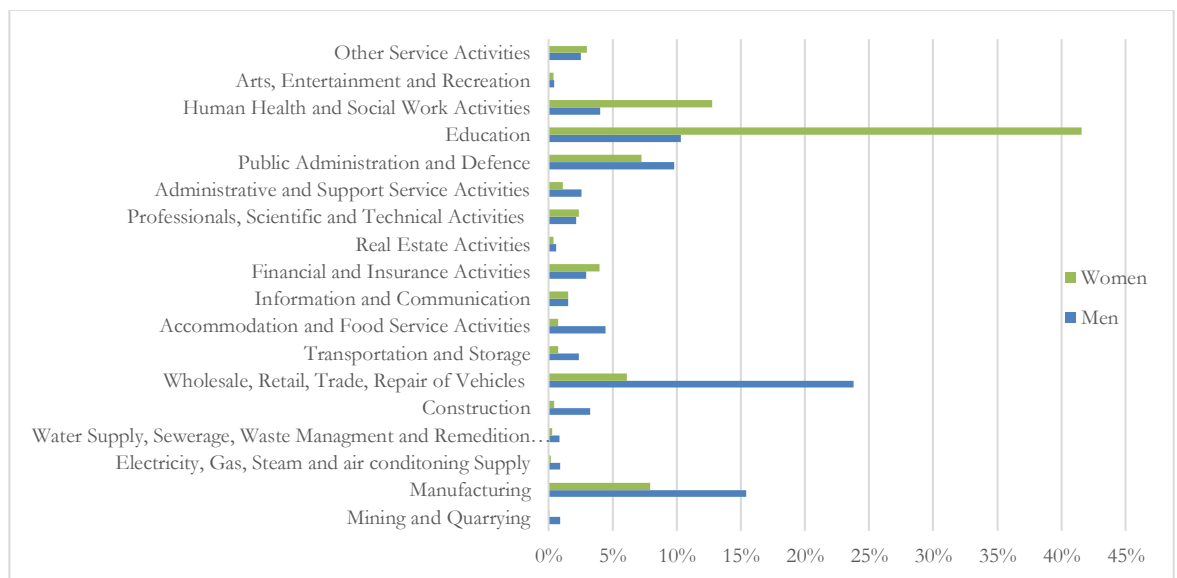
	Women's wages	Men's wages	Men's employment	Women's employment
Managers	1,030	1,466	3%	1%
Professionals	517	722	16%	15%
Technicians	434	553	6%	3%
Clerks	391	481	5%	3%
Service workers	358	321	12%	1%
Craft & related trade	240	374	9%	1%
Plant/machine operators	230	346	10%	3%
Elementary occupations	326	346	10%	2%

Source: Department of Statistics, 2016

Furthermore, gender gaps across sectors are prevalent. Figure 1-7 presents a comparison of sectors of employment by gender. The education sector accounts for the vast majority of women's employment at 42%. The second highest sector of employment for women is the health sector at 13%. Men's employment is more dispersed across sectors, however, the wholesale and manufacturing sectors account for the largest sectors of male employment (23% and 15% respectively).

Figure 1-7

Sectors of employment by gender



Source: Department of Statistics (2015)

1.3 Women's economic participation in relation to the evolution of the Jordanian labour market and economy

Contrary to neighbouring Middle Eastern nations, Jordan is a non-oil producing country. While scarce in natural resources, external revenues derived from foreign aid and remittances² have greatly shaped the labour market (Pfeifer and Posusney, 2003; Malik and Awadallah, 2013). The Jordanian labour market is a collation of paradoxes. Despite economic growth, the creation of productive jobs remained limited (Rad, 2011). Despite the high number of university graduates, particularly female graduates, unemployment of Jordanians has not reduced (Rad, 2011). Instead, as Figure 1-4 shows, university educated women faced the highest unemployment rates. All in all, geopolitical and economic features have profound contextual implications for women's employment (Sidani and Feghali, 2014).

Despite the influx of economic migrants and refugees to Jordan and outflow of Jordanians to neighbouring Gulf countries over the years, the Jordanian labour market itself remained small (Taher and Kanaan, 2002). For one, remittances were often invested in land, housing and similar diminishing investments, rather than businesses or sustainable employment generating activities (Harrigan et al., 2006; Taher and Kanaan, 2002). Secondly, it is the high skilled that migrate for employment, leaving behind a less skilled labour force that faces a high unemployment rate of up to 30% (Chatelard, 2010). Moreover, often, it

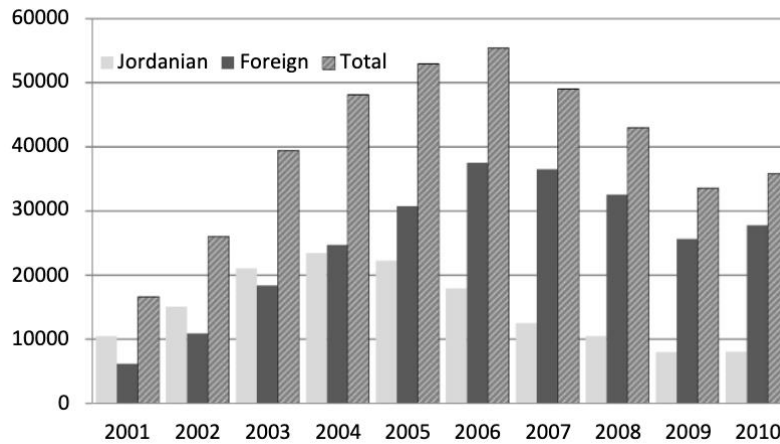
² Remittances typically account for a large, although diminishing, percentage of GDP in Jordan. In 2008 remittances accounted for 20% of GDP, 13% in 2010 and 10% in 2014. Source: <https://datacatalog.worldbank.org/>

would be the male breadwinner who would migrate for work. This did little to change gender relations or encourage women's employment outside of the home, as income was high enough to sustain the breadwinner model and women did not need to work (Sidani and Feghali, 2014; Tuccio and Wahba, 2018). Additionally, upon return, it was found that more conservative gender norms were enacted as a result of working in the Gulf countries (Tuccio and Wahba, 2018).

As well as labour migration, structural reforms shaped Jordan's labour market. IMF and World Bank programmes contributed to increasing poverty and unemployment through trade liberalisation, freezing public sector wages and employment (Harrigan et al., 2006). Reduced public sector hiring adversely affected women's employment (Assaad, 2014). During economic reform, the creation of export processing zones aimed to prompt private sector employment. However, the decline in public sector employment was not substituted by export processing zones. While the composition of the workforce in export processing zones mainly comprises of women, it is not Jordanian women who engage in employment, rather migrant labour from Asian countries (Azmeah, 2014). In the initiation of the export processing zones, Jordanians represented the majority of those employed in export processing zones. However, after 2005 an influx of Asian labour began to account for the majority of workers as seen in Figure 1-8 below. Weak regulations that did not prevent companies from hiring cheaper foreign labour (Yom, 2013; Azmeah, 2014).

Figure 1-8

Number of persons employed in Jordanian export processing zones from 2001-2010



Source: Labour in global production networks: workers in the qualifying industrial zones (QIZs) of Egypt and Jordan (Azmeah, 2014)

The turbulent politics of neighbouring countries no doubt influenced Jordan's economy and fluctuating GDP. In 1990, due to the Gulf war, 300,000 Jordanians were expelled all at once and remittance flows drastically stopped (Taher and Kanaan, 2002). As poverty levels began to increase, women's economic participation did not rise due to the high prevalence of honour crimes (Moghadam, 2013). An annual average 25 women are killed for the sake of "honour" (Faqir, 2001; Hadidi et al., 2001; Hussein; 2002; Droeber, 2003; Al-Badayneh, 2012). The percentage of honour killings out of total killings averages at 27% (Faqir, 2001)³. Additionally, growing Islamist influence in the region had negative effects on women's employment; as such it is found that women do not work in hotels, restaurants, service industry generally (Taraki, 1995; Schwedler, 2010; Moghadam, 2013).

³ The reliability of figures on gender-based violence, and in particular honour killings, are difficult to confirm. For example, a report released by the Human Forum for Women's Rights in 1999 revealed differences in official statistics and actual crimes committed. Moreover, some figures were masked as suicides when in fact they were forced suicides/honour killings (Faqir, 2001; Hussein, 2002)

Table 1-1
Honour killings as percentage of total killings, 1986– 1999

Year	Total killings	Honour killings	Percentage
1986	66	22	33
1987	69	18	26
1988	76	23	30
1989	62	20	32
1990	82	22	26
1991	76	24	31
1992	93	27	29
1993	96	33	34
1994	87	24	27
1995	78	20	25
1996	108	19	17
1997	105	25	23
1998	108	22	20
1999	67	17	25

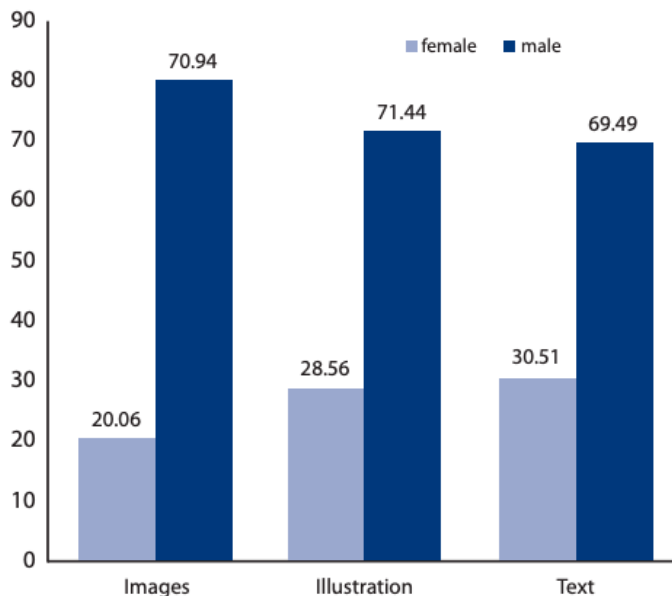
Source: Intrafamily femicide in defence of honour: The case of Jordan (Faqir, 2001)

Prior to economic structuring, state-led development had in fact boosted women’s employment. There was eminent progress in educating women, with the promise of public sector employment (Pfeifer and Posusney, 2003; Clark and Michuki, 2009; Assaad, 2014). Since the 1970’s government hiring has largely reduced, however, however, the high dependence on public sector to hire has not receded in recent years and remains a prominent feature of the Jordanian labour market (Assaad, 2014). Recently, the percentage employed in the public sector grew slightly from 39% in 2010 to 43% in 2016 (Assaad and Salemi, 2018). Both men and women are willing to “queue” for long periods, even years, of time to attain a public sector job (Salehi-Isfahani 2012; Said, 2014). Willingness to wait in line for employment was enabled by the advantages of generous maternity leave and benefits (Assaad, 2014, chapter 4).

While trends in educating women’s favourably developed, scholars pointed to the highly gendered content of public education curriculum (Al-Mahadin, 2004; Jansen, 2006; Adeley, 2012; Shirazi, 2015; Abu Jaber, 2014; Al-Khalidi, 2016). Discourse and images frequently communicate to young girls and women that educated motherhood, not employment, is the goal (Jansen, 2006). Gender binaries are sharply reproduced and reinforced through schooling (Al-Khalidi, 2016). Women are constantly portrayed in school textbooks doing domestic work, whereas men are performing manual work such as mechanical or electrical repairs (Abu Jaber, 2014). If reference is made to a woman working, the following text reasons that it is out of financial necessity, in the entrepreneurial scene women are shown to be working from home and only 10 out of 85 images of vocational jobs are shown to be of women (Abu Jaber, 2014). Generally, women are less represented than men as shown in Figure 1-9.

Figure 1-9

Percentages of male and female references in images, illustrations and text



Source: Breaking through Glass Doors: A Gender Analysis of Womenomics in the Jordanian National Curriculum (Abu Jaber, 2014)

As such occupational segregation is rather palpably observed where Jordanian women are predominantly employed in jobs that are assumed to be close to 'female nature' (Sonbol, 2003; Guegnard et al, 2005). That is, jobs that involve empathy, communication and social responsibility. As can be seen in Figure 1-7, women's employment is highest in the education and health sectors as well as in social work. Social norms are enacted strongly in the private sector as employers commonly perceive women as uncommitted to employment and avoid hiring them (Alfarhan, 2015). Additionally, private sector employers refer to the expenses raised by maternity leave and childcare policies when not hiring women (Peebles et al., 2007). It is often the case that women must prove dedication to employment, with higher qualifications and higher years of work experience than male colleagues (Alhawarin and Salamat, 2012). Finally, the majority of organisations in the private sector are classified as small businesses, which poses a threat to the preference of gender segregation at work places (Assaad, 2014).

Pressures and strict adherence to norms by families further constrain women's economic participation due to fears about morality, honour and safety (Droeber, 2003). For example, the haphazard infrastructure of public transport in Jordan or complete lack thereof in many governorates, further instils concern for women's safety to and from work (Kawar, 2000; Miles, 2002; Droeber, 2003). Moreover, in the family domain, women's employment is deemed acceptable on the condition that domestic roles are maintained (Hijab, 1996; Amawi, 2000). Familial pressure on daughters or wives to give their income to other family members, either partially or wholly, are not uncommon (Kawar, 2000). However, ethnographic studies on middle-class women in Amman

portray the renegotiation of patriarchal ideologies achieved via articulating the positive benefits to be received from employment (Miles, 2002; Droeber, 2003).

Another argument that supported women's employment is the attainment of social welfare provisions, such as healthcare, through formal employment – as social welfare was only relationally accessible for women via a husband or father employed in the public sector (Baylouny, 2008). However, the extent to which employment could improve autonomy and in turn provide positive outcomes for family, namely children is highly context dependent. There are no existing studies that address such a complex nexus of employment, child welfare and women's autonomy in the Jordanian context. A study by Miles Doan and Bisharat (1990) tackled the relation between women's autonomy and children's nutritional status. The study holds some relation to labour markets as it was conducted in urban settlements where employment tends to be in low paying informal or low-level government jobs. The results revealed that children's nutritional status is very negatively affected by low women's autonomy in a household.

1.4 The missing link in explaining women's labour force participation in Jordan

As discussed, women's labour force participation in Jordan has been relatively stagnant over the years. Researchers tackle the phenomena of increasing education in combination with static female employment rates through a number of approaches. This section takes a closer look at these approaches to reveal the missing link in explaining FLP in Jordan in relation to the wider literature.

Women's labour force participation can be considered both an indicator of and contributor to a nation's economic growth. Under the 'structural approach' it is assumed that as a nation modernizes through increased education levels, reduced fertility and technological innovations are introduced, female labour participation rates increase (England and Farkas, 1986; Goldin, 1995). As such, the well-known U-shaped hypothesis is believed to explain patterns of women's employment (Boserup, 1970; Boserup, 1990; Goldin, 1995). In highly agricultural economies, women's participation is high as earnings are low and extra income is required. Moreover, agricultural jobs allow women to combine productive and reproductive activities. As economies develop and enter industrialisation, incomes increase and jobs are less socially acceptable for women with fewer opportunities to combine productive and reproductive work. Further economic growth creates the service sector. At this level, more women enter the labour market as part time jobs become more widely available (Gaddis and Klasen, 2014). Overall, it is assumed that cultural change corresponds to economic growth (Inglehart, 1997).

In a study of 184 countries from 1965 to 2005, Luci (2009) find a relationship between FLP and a country's stage of development. Similarly, Tam (2011) also finds evidence for the U-shaped hypothesis in a panel data study of 130 countries from 1950 to 1980. During the period studied, low income countries experienced de-feminization of the workforce, high income countries experienced rising levels of FLP and middle income countries underwent U-shaped pattern from 1950-1980. Other studies focus on exhibiting the gender specific labour demand that is created alongside economic growth, particularly the service sector in

the United States (Rendall, 2010; Akbulut, 2011; Ngai and Petrongolo, 2013). In comparison to the United States, other economically advanced countries⁴ also experienced a U-shaped relationship between FLP and economic development (Olivetti, 2013). However, the relationship is somewhat muted among countries that joined the OECD after 1973.

Nevertheless, the evidence for the U-shaped hypothesis is mixed and found to not be generalizable across countries. For example, oil exporting countries are characterised by high GDP yet low FLP, while the former Eastern bloc countries have comparably high FLP in relation to GDP (Luci, 2009). Scholars critically note that while economic development may create or diminish job opportunities for women, it is the underlying social factors that explain patterns (Semyonohov, 1980; Chang, 2004; Lincove, 2008). Other studies show that industrial labour does not necessarily reduce FLP (Lincove, 2008). That is, heavy industry labour is replaced by export orientated industries, as has been the case for Central America and South East Asia (Kucera and Tejani, 2014; Besamusca et al., 2015). Moreover, there are concerns about the comparability of data across countries. In a robust and updated approach, Gaddis and Klasen (2014) show that the U-shaped hypothesis is dependent on the data source used and does not hold over time. Instead the results show that there is a weak relationship between GDP and FLP.

Moreover, the assumptions under the structural approach are rigid. For example, the U-shaped hypothesis cannot explain the persistent low female labour participation in Middle East economies despite concurring

⁴ Australia, Belgium, Canada, Denmark, France, Finland, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom

with the process of modernisation such as high education rates. Some argue that across the Middle East, women's labour in paid economic activities is treated as a reserve army of labour, often utilised in response to short term economic shocks rather than long term economic growth (Kelly, 2010). Others argue that most countries have skipped the industrialisation stage and are in a premature deindustrialisation stage (Rodrik, 2016), that amplifies male biases in hiring (Greenstein and Anderson, 2017). Some examples include Korea, Chile, Uruguay, Malaysia and Taiwan (Berik et al., 2009). Within Jordan, Moghadam (2013) explains that in Jordan women's participation did not grow, despite booming economic growth and trade liberalisation, wages for men were high enough to sustain breadwinner family model.

A second approach is the 'institutional approach' in which differences in women's labour participation across countries are attributed to manifestations of various welfare states (Kremer, 2007). Differences in policies vary from the extent of childcare provision, to maternity and paternity leaves or percentage of typical female jobs (Del Bocca et al., 2008).

Households relying on one income are more likely to face poverty (Esping-Andersen, 2002). Thus, institutional settings and policy measures are important in protecting the vulnerable or those at risk of falling into poverty (Castles, 2010; Drahokoupil and Myant, 2010). This is particularly the case of policies that support and encourage women's employment, namely policies surrounding maternity leave and childcare are especially important for single earning households (Ranci, 2009). In a comparative case study Formánková and Dobrotić (2011) reveal how the

differences between institutions influence FLP; for example, while the Czech Republic encourages full-time motherhood, Slovenia encourages professional care for working mothers. Policies in the Czech Republic encouraged full-time motherhood by supporting maternal leave for up to three years⁵, offering little state support for nurseries or kindergartens and flat-rate maternity/paternity benefits. Policies in Slovenia on the other hand, encouraged childcare leave for both fathers and mothers, nurtured the development of professional childcare facilities that were affordable and offered generous maternity/paternity benefits. Similar trends are found across wealthy, industrialised countries where state funded childcare, generous parental leave and benefits are more likely to secure labour force attachment among mothers (Boekman et al, 2015). Lengthy leaves with low benefits are associated with lower labour force participation. In developed countries, well-educated women in formal employment are likely to postpone childbearing until a suitable time to adjust parenthood and employment (Bertrand et al. 2016; Blau and Kahn 2017). However, women in developing countries may not have similar access to health services or childcare services (United Nations, 2016). Moreover, governing institutions have weak legislation and low enforcement of policies (Braunstein, 2012). As such, women uptake employment in the informal sector to accommodate parenthood and livelihoods (Quisumbing et al., 2007; Radhakrishnan 2010; Horn et al., 2013).

In the case of Jordan, the public sector has generally been the main source of female employment, however, over the years it has reduced hiring thus

⁵ Also making re-entry into the labour market difficult for mothers

adversely affecting women (Assaad, 2014). While women employed in the public sector did enjoy the benefits of social security programmes such as childcare and paid maternity leave, social security was only accessible for public sector employees and was not extended to women working in other occupations (Moghadam, 2013). Due to the rudimentary welfare structures prevalent in developing countries, the ‘institutional approach’ cannot offer a holistic understanding of female labour supply, particularly not for the case of Jordan. Moreover, Middle Eastern scholars argue that the family is an institution in itself and holds high relevance for women’s employment decisions (Moghadam, 2004; Dahlgren, 2008; Beitin and Aprahamian, 2013; Suad Joseph, 2018).

Subsequently, the ‘cultural approach’ stems from a viewpoint that attitudes and social norms take precedence in explaining women’s economic participation (Inglehart and Norris 2003; Hakim, 2000). Moreover, scholars show that there are intergenerational effects that play a significant role in cultural transmission around women’s employment (Alesina and Giuliano, 2007; Fernández and Fogli, 2009; Farré and Vella, 2012). Additionally, Pfau-Effinger (2005) argues that, the institutional approach is overly deterministic and advocates for the interplay of culture and institutions.

Sociocultural institutions, such as religion and ethnicity, play a role in explaining women’s individual decisions to enter the labour market. For example, in Kenya, Muslim women are least likely to be employed in comparison to other religions, and Embu, Kisii and Kikuyu women have higher likelihoods of entering employment than other ethnic groups (Giusti and Kambhampati, 2015). Typically, studies find that predominantly protestant or low religiosity countries have high levels of

female labour force participation compared to Muslim countries that have low levels of FLP (Guiso et al., 2003; Feldman, 2007; Jaeger, 2010; Bayanpourtehrani and Sylwester, 2013; Abdelhadi and England, 2018).

While culture or religious ideologies in the Middle East are important in explaining women's phenomenally low employment rates, this hypothesis must be properly contextualised and integrated within structural or institutional approaches rather than studied singularly (Moghadam, 1990; Miles, 2002; Huisman and Smits, 2009; Pettit and Hook, 2005; Moghadam, 2013). In economic studies, Islam was often used as a variable to account for culture (Tzannatos, 1999; Forsythe et al., 2000; Balamoune-Lutz, 2006; Buğra and Yakut-Cakar, 2010). The danger of deterministically isolating Islam as a proxy for patriarchy presumes an answer rather than instigating critical evaluation (Braunstein, 2014). Nevertheless, recognising the importance of culture aids in explaining women's economic participation in the Middle East. For example, Spierings and Smits (2010) utilise a multi-level analysis to incorporate individual, household and district level factors to examine national differences across 5 Middle Eastern countries and find that macro-level factors work through micro-level factors to encourage female labour supply.

The specific conditions of gender systems can produce different outcomes even within countries. For example, in Chile, internalised traditional attitudes to gender roles and conservative cultural values have significantly negative effects on women's economic participation (Contreras and Plaza, 2010). However, Ramirez and Ruben (2015) show that there were few barriers to entry for women in the Salmon industry

on the island of Chiloé in Chile. Before the establishment of the aquaculture industry, women were involved in productive roles. Agricultural tasks that were traditionally associated with men's roles were taken up by women, as the men would migrate seasonally for employment.

Moreover, education can have a positive effect on FLP despite the influence of cultural factors (Contreras and Plaza, 2010; Spierings et al., 2010; England et al., 2012; Giusti and Kambhampati, 2015; Ramirez and Ruben, 2015). At the same time, the influence of education varies by context. In Bangladesh, despite incredibly low aggregate FLP, employment is higher among the less educated (Asadullah and Wahhaj, 2016). Rather, *purdah* (the social exclusion of women from public spaces) chiefly explains the severely low female supply rates. In a study of 74 countries, Bussemakers and others (2017) find that labour market structures as well as culture shape the relationship between education and employment.

Culture and social norms are not static, and women are active agents of change. Moreover, the absence of feminist economics research on Jordan that draws from a mixture of disciplines to examine women's economic activity is ostensible. Thus, an interdisciplinary approach to combine both quantitative and qualitative methods to achieve a richer understanding of the underlying factors of women's economic participation in Jordan is both amiss and necessary. Secondly, women are often treated as a homogeneous group in economic analyses. Employment patterns as identified do not systematically affect all groups; however, qualitative work is better able to grasp at this dissonance. For example, sociological research by Taraki (1995) and Miles (1994) focuses

on low-income residential areas in Jordan, while Hatem (2015) looks at middle and upper class women benefiting from state-led development. Yet the two disciplines do not converge. Although El-Solh (2003) argues that for Jordan class overrides gender in determining women's participation in the labour force, it is not brought to the forefront in economic analysis. Thirdly, the literature focuses on factors to explain non-participation rather than conditions of or consequences for those in employment. There is general agreement that the high reservation wages of women, discouraging social norms and rigid family obligations work to limit women's participation in formal employment (Miles, 2000; Assaad, 2014; Lenze and Klassen; 2017; Krafft and Selwaness, 2018). However, the dynamics of these factors are unclear. In specifically examining the labour market outcomes for women in employment a deeper understanding of where the issues and solutions lie can be extrapolated. Moreover, by focusing on labour market outcomes, attention can be turned to addressing routes of transformative change.

1.5 Research questions

Given the trends, assumptions and implications for women's employment in the Jordanian labour market, the main conceptual issue I analyse is that of entrenched gender norms and class intersectionalities in influencing women's labour market outcomes. My overarching research question is:

How do specific socio-normative factors contribute to women's economic participation in paid work across socioeconomic groups in the period 2010-2016 in Jordan, particularly regarding wage inequality, occupational choice and maternal employment?

1.5.1 Gender wage inequality

My first research interest is the gender wage gap, which encompasses both determinants and consequences of FLP. The gender wage gap in Jordan is an area that has been under scrutinised and largely left to descriptive statistics in policy papers or academic studies that do not account for the heterogeneity among women. The simultaneous occurrences of closing the gender education gap and high female achiever coupled with low female participation and wage differentials motivate further investigation.

The notion of raising women's education to improve productivity was a popular trajectory in the 1960's/70's with the aim of economic growth (Roudi-Fahimi and Moghadam, 2006). Women's educational attainment in Jordan has followed impressive progress. Not only have basic education levels risen, but the attainment of higher education too has seen rising trends. Despite the aims for economic growth women's education has hardly translated into employment in Jordan. Moreover, for those who do enter the labour market, there is evidence of gender wage gaps (Said, 2014; Alfarhan, 2015).

One of the main issues that have been revealed is the discrepancy among women's and men's wages in the public and private sectors. For example, civil service legislation⁶ grants married men a family allowance, whereas married women are only eligible if widowed or a husband is disabled (Kelly, 2010). Unless a woman is deemed as a household head, the same advantages are not extended (Amawi, 20090; Baylouny, 2008). However,

⁶ The Civil Service Bylaw No. 30 of 2007

conditions are poorer for women in the private sector. Often described as hostile towards women, employers are discriminatory in their hiring practices in order to avoid paying maternity leave benefits and ensuring childcare facilities (Peebles et al., 2007). Reservation wages are often referred to in studying the gender wage gap. However, reservation utility or reservation conditions are also influential in determining FLP (Groh et al., 2015). Factors, as determined by social norms such as suitability of work conditions, ratio of females, and proximity to home, can play an important role in the decision to engage in paid work.

The existence of the average gender wage gap in Jordan has been proven (Said, 2014; Alfarhan, 2015). Yet, it is not useful in pinpointing to issues of glass ceilings or sticky floors. In the case of Jordan there is widely varying quality of education, the consequence of which has not been examined. Further to that, qualitative literature emphasizes the significance of socioeconomic conditions, or class, in influencing outcomes of FLP (Doan, 1992; Taraki, 1994; Kawar, 2005; Salehi-Isfahani et al., 2014). Hence, women and men have heterogeneous abilities and conditions that need to be accounted for. As such the first empirical chapter asks the following questions:

Where along the wage distribution is the differential between women and men largest? Why do wages among women differ as well?

In order to address the variations in wages, I examine the wage distribution at different percentiles. This way, the greatest points of the gender pay gap are revealed. In other words, does the Jordanian labour market have sticky floors or glass ceiling for women's pay? The method

I use accounts for the selection of women into the workforce as well as the unobservable characteristics that contribute to differences in wages. The dataset used is the Jordan Labour Market Panel Survey (JLMPS) for the years 2010 and 2016. This article finds evidence of growing glass ceilings and sticky floors, with an interesting convergence of wages around the median.

1.5.2 Occupational choice

My second research interest approaches under-researched area, that of women who have remained in the labour market despite the influence of conservative social norms. I particularly focus on women who have transcended norms and enter male dominated occupations. In this sense, these women are able to provide realistic solutions to policymakers using their working life experiences. The narrative of women's employment in Jordan so far is that social norms are static, yet these women prove otherwise.

One of the main features of the Jordanian labour market is encountered in the first article: that of women permanently exiting the workforce around the age of marriage or childbirth. Structurally, it can become incredibly unfeasible for women to continue working with the lack of affordable childcare. Lack of social support for a woman working outside of the home too can become a discouraging factor. In addition to discouraging norms towards women's employment, the segregation of suitable jobs for women, such as teaching, prevails. Yet such structural factors do not determine everything, and women exercise their agency in various ways to attain their own meaningful careers in non-traditional jobs. As such, the second research question is:

What are the factors that encourage and support women who work in non-traditional jobs and industries across socioeconomic groups?

In answering this question, I interview women who have remained in the labour market continuously and who work in areas that contradict various aspects of gender norms. I find that class background is indeed influential in explaining career choices in addition to negotiation tactics. However, the intersection of class and gender reveal a new negotiation dynamic, that of enclaves. I find that women engage with gender norms in non-traditional work to different extents based on their backgrounds. While some fully challenge norms in a direct manner, others etch a space that protects and maintains gender norms and rationalises their actions to family members, male colleagues and the wider society.

1.5.3 Maternal employment

The third research interest is maternal employment as it relates to child development, with an angle on household bargaining. I compare the outcomes for early child development indicators between households with employed mothers and households without. The narrative initiated acts to inform policymakers and challenges normative speculations that assert households suffer if mothers engage in employment. Moreover, this chapter incentivises policymakers to focus on reducing future inequalities as early child development is linked to future earnings, health and stability.

Women's participation in paid employment particularly outside of the home is a means to not only alleviating poverty but also for transforming social norms within and beyond the household. Despite declining fertility

rates, affordable childcare and norms around caregiving restrict women's labour supply. Yet, the narrative is not straightforward – it is not known whether maternal employment is harmful or helpful for early child development. Elements of household bargaining could arise, for example, income in the hands of women could be directed towards educational activities for children and as such have better outcomes for child welfare when compared to households without working women. As the outcome is unknown, normative discourse often takes precedence (Moghadam, 2013; Al-Mahadin, 2004; Al-Mahadin; 2017). Consequently, raising more informed discourse about the outcomes of maternal employment is beneficial for encouraging women's labour force participation. Thus far, previous research on Jordan in the domain of household bargaining reveals that maternal employment gears more resources towards child nutrition (Miles-Doan and Bisharat, 1990; Jansen, 1997; Sharaf and Rashad, 2016). However, gender relations in the household suffer and higher incidences of intimate partner violence prevail in households with employed women (Lenze and Klasen, 2017). As such the research question asked in this chapter is:

How does maternal employment impact early child development? Do the effects differ for children aged 3-4 and children aged 4-5?

To study the outcome of employment, a counterfactual-based approach is utilised where maternal employment is considered a treatment. As mothers may non-randomly select into employment, applying a treatment effects model allows for selection of treatment to depend on unobservable characteristics, considers the treatment as endogenous and permits the use of observational data. The data used is the 2012

Demographic and Health Survey (DHS) for Jordan. The results reveal two main interesting points to inform the societal preoccupation with women's employment. First, women who engage in employment have higher abilities to secure higher development outcomes for children than women who do not engage in formal employment. Specifically, this means that the children of women who live in areas that have early learning facilities and higher opportunities for employment are able to benefit. Secondly, the effect of maternal employment is not a straightforward ordeal and child development is a multi-dimensional ordeal as children's needs vary across age groups. Overall, the policy implications imply that to reduce future inequalities in addition to boosting women's employment, educational and social development opportunities for young children should be more widely accessible across the nation.

1.6 Structure of thesis

The thesis is divided into five chapters. Chapter one provides an overview of the thesis, introduces the topic and the Jordanian labour market and presents the research questions. The following three chapters are empirical chapters. Each chapter addresses a research question. Chapter two examines gender wage inequality and participation in the labour market. Chapter three explores the strategies women employ to transcend gender norms in non-traditional jobs. Chapter four analyses the association between maternal employment and early child development. Finally, conclusions and contributions to knowledge are provided in chapter five.

Chapter 2 Gender gaps in the distribution of wages in Jordan: Allowing for sample selection adjustments

2.1 Introduction

The gender wage gap is a well-researched issue. The observed wage gap averages 77 percent in developed countries, and 73 percent in developing countries (World Bank, 2001). Admittedly, over the course of the past 50 years (Blau and Khan, 2017), the gender pay differential has slightly diminished as the gender education gap has declined in several countries. Despite the decreasing average wage gap, glass ceilings and sticky floors are rising (Blau and Khan, 2017), revealing that the highest paying jobs remain inaccessible for women. In other words, new forms of inequality prevail, where women's improved educational achievement is not rewarded- despite being on par with men's educational achievements (Figueiredo et al, 2015; O'Reilly et al, 2015).

In developing countries as well, the gender education gap is closing (Heath and Jayachandran, 2017). Despite that, gender wage gaps remain high as oftentimes women are overqualified and glass ceilings prevent access to good quality jobs. It is hypothesised that countries with a low gender gap index are less likely to have glass ceilings (Fang and Sakellariou, 2015). Despite the abundance of research on the gender wage gap and the potential glass ceilings effect, little effort is put into capturing the potential effect of selection into the labour force. This is an important omission in developing countries with low participation rates for women. It is likely that the highest educated women are disproportionately entering paid employment and thus the gender wage gap is largely underestimated (Herrmann and Machado, 2012).

In this sense, Jordan is an interesting and fertile case to study. Not only is it infamous for the gender paradox of low female participation coupled with high education, but also women are outperforming men in their higher education achievements. Recent trends show that there are rising investments in women's education as well as increased investments in private education that exacerbate inequalities (Salehi-Isfahani et al., 2013). However, Jordan ranks 138 in the gender gap index out of 149 countries in the 2018 human development report. While health and education indicators are relatively high, political and economic dimensions are stubbornly low. In the labour market, women face limited opportunities, and are often employed in the public sector that is under pressure to reduce mass hiring (Assaad, 2014). Female employment is little compensated for in the private sector (Said, 2014). With these economic participation trends in mind, is the gender wage gap affected?

This research addresses the gender wage gap in Jordan by exploring the earnings distribution in the years 2010 to 2016. The distribution (as opposed to the simple average) of wages is of interest for two reasons. First, it helps us determine the presence of glass ceilings or sticky floors which have conceptual and policy implications beyond those related to average gender wage gaps. Second, to depict the big picture of within and between group inequalities. As well as addressing average gender inequalities, policymakers and individuals are interested in knowing patterns inequality within groups –among men and women themselves. This would help explore for instance which characteristics make women more or less susceptible to experiencing a glass ceiling effect.

This article offers several innovations over existing studies and solutions to developing country predicaments. For one, few studies address the gender wage gap through a distributional analysis for the Middle East, and specifically none for Jordan. Where the focus previously lay in average wages, this article goes beyond the mean to shed light on pressing political concerns about exacerbated inequalities in the Middle East. Second, both the method and results of this article are highly relevant to other developing countries with low female labour force participation yet high levels of educated women. Particularly considering that many developing countries face the same predicament of shrinking public sectors where well-educated women are typically employed. Thus, an understanding of patterns of selection into employment across the distribution sheds light on which individuals are affected, and the subsequent effect on wages. Third, using data from 2010 and 2016, this article is able to study patterns over a period of time. This allows for improved explanations of identified wage gaps across the distribution.

This article employs a novel, innovative and complex model, quantile regression corrected for selection bias, as developed by Arellano and Bonhomme (2017). The data used is the Jordanian Labour Market Survey (JLMPS) that encompasses two waves, 2010 and 2016.

The results confirm the importance of studying the distribution of wages and suggest that previous studies not only significantly underestimate the gender wage gap but also neglect to identify within group inequalities. In particular, the results show that men in low paying jobs are being pushed out of the labour market. Despite a competitive labour market with demand for high skills and the supply of highly educated women, the

estimates for Jordan reveal an increasing glass ceiling over time. Interestingly, wages for women and men converge at the median. This article argues that the conditions created by public sector hiring that supported gender equality in wages at the median could be applied at a wider scale.

2.2 Literature review

2.2.1 Within group inequality

Many developed countries, in particular Anglo-Saxon countries, have experienced a vast divergence between wages in the top half of the distribution and the median since the 1980's (Perez-Arce et al., 2016). Wages have risen much faster with high levels of education. To a large extent, increased returns to schooling, underpinned by the increased demand for skilled workers in a technological era (referred to as skill-biased technological change), accounts for wage inequality (Perez-Arce et al., 2016). Similar trends have been shown in developing countries such as East Asia and Latin America in the 1990's where returns to education have contributed to increasing within group inequality, namely inequality that affects members of each individual group (namely men competing with other men and women competing with other women) (Bourguignon et al., 2005).

In a review of literature between the 1960s and 1990s, trends revealed that the returns to education were higher in developing countries than developed countries due to the relative scarcity of human capital (Psacharopoulos, 1994; Psacharopoulos and Patrinos, 2004). However, since then the trends have changed as demand for highly skilled labour

has risen in advanced economies thus coinciding with rising returns to higher education (Psacharopoulos, 2006).

Due to skill biased technological change and higher returns to education, countries like Indonesia, Turkey, and China have witnessed growing wage inequality. One can explain the changing pattern of returns to education with reference to supply and demand of education in the labour market. On the supply side, changing trends may be due to increased numbers of primary school completers, despite stagnant numbers of those who complete higher levels of education. On the demand side, changing trends may be due to labour markets requiring higher skill sets and as such the economic reward increases for the more educated. For example, high wage inequality in Turkey is associated with the demand for higher skills as a result of globalisation and FDI flows that contribute to higher skills being better rewarded. On the supply side, factors such as the increasing cost of good quality education are also identified as contributors to inequality (Tansel and Bdour, 2012). Similarly, for Indonesia, wage inequality is rising with the higher skilled gaining more favourable returns. In line with skill biased technological change, Lee and Wie (2015) find that FDI flows explain this increase in demand for skilled labour and subsequent rise in inequality.

2.2.2 Between group inequality and the gender gap

While within group inequality can be largely explained by skill biased technological change and the related returns to skills within each group of individuals, between group inequalities among men and women typically raise other issues. Numerous studies confer that gender wage differentials are due to the structure effect, in other words, discriminatory practices that shadow educational attainment and returns (Becker, 1971).

In addition to that, prolific research addresses occupational segregation and finds that it offers an important contribution to explaining a significant portion of the wage gap. Moreover, while the average gender gap has been decreasing over time, the gap at the upper end of the wage distribution remains stubbornly large (Blau and Kahn, 2017). This phenomenon is termed as glass ceiling and refers to invisible, yet solid barriers that restrict minorities in career promotions. The same can be applied to sticky floors that restrict minorities in low paying occupations (Booth et al. 2003; De La Rica et al., 2005; Kee, 2006; Chi and Li, 2008).

Fang and Sakellariou (2015) analyse wages across quantiles in a number of countries and find different wage trends, verifying that context is plays a role. For example, glass ceilings are common in the Latin American and transition countries studied; whereas, Asian countries tend to exhibit sticky floors.

Moreover, Carrilo et al (2014) explain that in Latin American countries that already have high income inequality, wage gaps are exacerbated by gender as well as race. Indeed, even in the extreme case of imposed “equality” in the context of socialism in transition economies, women still faced the double burden of unpaid work in the household as well as paid employment out of the home thus contributing to glass ceilings (Newell, and Reilly, 2001).

While much of the literature that looks at the gender pay gap beyond differences in average wages by gender mostly focuses on glass ceiling experiences, research on China finds evidence of gender wage differential accentuation among the lower quantiles of the wage distribution (Chi and Li, 2008). The association is made between the sticky floor phenomena and individuals with low education levels in private sector, low paid

production work. Such pay differentials are explained by discriminatory preferences in the private sector, as there is a plentiful supply of male unskilled labour compared to female labour. As such, Chi and Li (2008) argue that employers are more likely to act on discriminatory preferences and perceive female labour as less productive. Other studies also concur with the explanation that there is a higher gender differential at the lower end of the distribution due lack of knowledge about legislations and ability to bargain (Desphande et al., 2018). Whereas in Bangladesh from 1999-2009, Ahmad and McGillivray (2018) show that the gender wage gap has actually decreased as a result of higher female educational attainment. Reasoning for the wage gap in this case is explained differently due to the significance of the manufacturing sector, a main contributor to the economy, and a significant employer of female labour.

2.2.3 Selection into the labour market

Women tend to have a lower labour force participation than men and those who work are not a random sample of the working age population. As such, it is not ex ante clear whether those with higher earning potential are more likely to enter the labour market or withdraw from it; in other words, it is not clear whether they are “positively” or “negatively” selected into the labour market. Not accounting for selectivity could thus lead to either overestimation or an underestimation of the wage gap. A positive selection bias indicates that individuals with high earnings potential select into employment, whereas negative selection bias means that individuals with low earnings potential select into employment. Under positive selection the (raw) wage gap is underestimated, while in the case of negative selection the (raw) wage gap is overestimated (Herrmann and Machado, 2012).

The pattern of selection differs across countries and over time. Studies on the United States show that the selection pattern changed from negative to positive, which in turn lead to a decreasing gender wage gap, (Mulligan and Rubinstein, 2008).

Olivetti and Petrongolo's (2008) comparison of Anglo-Saxon countries and Mediterranean countries further indicates that accounting for selectivity can lead to a completely different narrative related to comparisons of the wage gap. When selection bias was not taken into account Anglo-Saxon countries which have higher FLP were found to have a higher raw wage gap than the latter. However, after correcting for selection, the wage gap was found to be larger in Mediterranean countries. The result was generalised to conclude that there is generally a negative relation between gender gaps in employment and earnings (Olivetti and Petrongolo, 2008; Christofides et al, 2013; Perugini and Selezneva; 2015).

In developing countries, such as Madagascar, Nordman and Roubaud (2009) show that the gender gap doubles when incorporating women's lower attachment to the labour market. In Columbia as well, Badel and Pena (2010) reveal that the raw gender pay gap substantially underestimates the actual gender pay gap when not accounting for selection. Moreover, the effect of selection is found to be larger at the upper end of the distribution, emphasising the glass ceiling effect. Chzhen and Mumford (2011) also find that when adjusting for selection, the gender wage gap doubles along the distribution. Specifically, it is found at the 80th decile where the selection effect decreases (i.e. higher female participation), the gender wage gap also decreases.

Additionally, recent studies reveal that selection may not only apply to women but also for men. A pattern that emerges is generally that lower

skilled men are being pushed out of the market (Herrmann and Machado, 2012; Dolado et al., 2016) particularly as the rewards to higher skilled occupations are increasing.

2.2.4 Literature on Jordan

Studies on gender wage inequality in Jordan and on the broader Middle East North Africa (MENA) region generally are scarce. However, there are some noteworthy studies on wages that highlight relevant trends on individual returns to education. These studies are useful as a starting point, given that the pattern of returns to education can suppress or exacerbate the gender wage gap. For example, in developed countries, the rate of return to education is generally constant, approximately 10% wage increase per year of schooling (Salehi-Isfahani, 2016). By contrast, in the MENA region university education is disproportionately rewarded (Salehi-Isfahani, 2016). Yet, despite the comparably rapid decline in female illiteracy in the MENA region since the 1990s (Klasen and Lamanna, 2009), the returns to women's education remains low compared to the returns to men's education, (Balioune-Lutz and McGillivray, 2015). But even after accounting the differences in returns to education, a substantial portion of the gender wage gap remains unexplained (Macis, 2017).

Nordman and Wolff (2009) find that for select Middle Eastern countries, the gender gap is more influenced by cultural norms than by economic factors. Specifically, in Morocco glass ceilings are high and women are less rewarded than their male counterparts for observed characteristics. In fact, across Middle Eastern countries, a large portion of the gender pay gap is attributed to unobservable characteristics (Ñopo et al., 2011). Bearing in mind that generally university level education is well-rewarded

and gives access to higher paying jobs, this sheds harsher light on the extent of the gender pay gap.

The two studies on the gender wage gap in Jordan that have incorporated selection in their analysis are Said (2014) and Alfarhan (2015). However, both of them focus on the mean. Both studies report that women have favourable returns to university education, which aids in compressing the gender gap. Alfarhan (2015) also reveals that the wage differential is much higher among younger women due to screening bias at the recruitment stage. This is consistent with trends in female employment in Jordan whereby permanent exit of the labour market is common at the age of marriage or childbearing. Nevertheless, a study on the extremities of the gender wage gap in Jordan is amiss. This chapter aims to answer the following questions: (i) Where along the earnings distribution is the differential between women's and men's wages largest? (ii) Is there a wage gap among women themselves and what are its main drivers?

2.3 Method

This article uses the method proposed by Arellano and Bonhomme (2017) to correct quantile regression estimates for non-random sample selection. The classic Heckman selection model is given by,

$$Y^* = X'\beta(U) \quad (1)$$

Y^* is observed when the binary selection indicator D is equal to one

$$D = 1\{V \leq p(Z)\} \quad (2)$$

where X is a subset of Z . The scalar unobservable η is assumed independent of Z but possibly correlated with ε .

Let $Y = DY^*$. As Y^* is not observed for non-participants in the labour market, it is not possible to directly estimate $E(Y^*|X)$. Instead the conditional mean for participants, which is identified from data on participants only, is instrumental in developing a selection correction method:

$$E(Y^*|D = 1, Z) = X'\beta + E(\varepsilon|D = 1, Z) = X'\beta + \Lambda(Z)$$

Where $\Lambda(Z)$ is a selection correction factor. This model can be estimated using two-step estimator in gaussian models as in Heckman (1979). But the method can be extended to allow for semi- or non- parametric specifications using the control function approach, provided additivity of the latent model (1) in X and ε is maintained. However, non-additive models such as quantile models cannot be studied using those techniques.

The latent model in the quantile selection model of Arellano and Bonhomme (2017) is given by:

$$Y^* = X'\beta(U) \tag{3}$$

Where $\beta(u)$ is increasing in u , and U is uniformly distributed on the unit interval, independent of X .

The classical conditional quantile regression model is given by,

$$Q(\tau, X) = X'\beta(\tau)$$

Maintaining the other assumptions of the Heckman Gaussian model Arellano and Bonhomme (2017) assume that equation (2) holds with a Gaussian η independent of Z , so that equivalently:

$$D = 1\{V \leq p(Z)\} \tag{4}$$

Where $p(Z) = \Phi(Z'\gamma)$, and $V = \Phi(\eta)$ is the rank of η , which is uniformly distributed on $(0, 1)$ and independent of Z .

Under the assumption that (U, V) follows a bivariate Gaussian copula with dependence parameter ρ , independent of Z , Arellano and Bonhomme (2017) show that equations (3)-(4) can be simplified to the Heckman Gaussian model when

$X'B(U) = X'\beta + \sigma\Phi^{-1}(U)$ is a location-shift Gaussian model.

However, in the non-additive model (3)-(4), quantile curves are generally non-additive in the propensity score $p(Z)$ and covariates X .

Arellano and Bonhomme (2017) assert that to account for non-random selection one needs to rotate the check function. The quantile regression estimates corrected for selection is given by:

$$\bar{\beta}(\tau; \rho, \gamma) = \underset{b(\tau)}{\operatorname{argmin}} \mathbb{E} \left[D \left(G_{\tau Z}^{\rho \gamma} (Y - X' b(\tau))^+ + (1 - G_{\tau Z}^{\rho \gamma}) (Y - X' b(\tau))^- \right) \right] \quad (5)$$

Where $a^+ = \max(a; 0)$, $a^- = \max(-a; 0)$, and $G_{\tau Z}^{\rho \gamma} = G(\tau, \Phi(Z'Y); \rho)$ the conditional copula, denotes the rank of $x'b(\tau)$ in the selected sample $D = 1$.

The parametric version of the estimation procedure requires the following three steps (See Arellano and Bonhomme (2017) for a complete description).

- Step 1: Estimate γ using a probit regression

$$\hat{\gamma} = \underset{a}{\operatorname{argmax}} \sum_{i=1}^N D_i \ln \Phi(Z' a) + (1 - D_i) \ln \Phi(-Z' a)$$

- Step 2: Estimate ρ (the copula parameter⁷) by profiled GMM
- Step 3: For any $\tau \in (0,1)$, compute $\widehat{G}_{\tau i} = G(\tau, \Phi(Z'_i \hat{\lambda}); \hat{\rho})$ for all i , and estimate $\beta(\tau)$ by rotated quantile regression,

$$\hat{\beta}(\tau) = \underset{b(\tau)}{\operatorname{argmin}} \sum_{i=1}^N D_i \left[\widehat{G}_{\tau i} (Y_i - X'_i b(\tau))^+ + (1 - \widehat{G}_{\tau i}) (Y_i - X'_i b(\tau))^- \right]$$

⁷ Following Arellano and Bonhomme (2017) a Frank copula is used for analysis, as is also commonly applied in empirical studies (e.g. Meester and MacKay 1994; Trivedi and Zimmer 2007)

2.4 Empirical specification

To recapitulate, it can be seen that broadly, the model has a selection equation as a first stage, followed by the second stage equation with wages estimated at the quantile level. Accordingly, a quantile selection model is used to model log-hourly wages Y and employment status D . A traditional set of wage determinants is used including age, education attainment, marital status, and regional dummies. This follows a common approach in the gender wage gap literature, prominent examples including Juhn and Muphy (1997), Buchinsky (1998), Card and DiNardo (2002), Blau and Kahn (2006) and Mulligan and Rubinstein (2008).

While many studies use age as one of the key covariates, in this case four cohort dummies are used, which are: born in 1950-1960, 1961-1971, 1972-1982 and 1983-1993⁸. 1983-1993 is the base category (Card and Lemieux, 2001; Arellano and Bonhomme, 2017). As a justification, Card and Lemieux (2001) indicate that the supply of highly educated workers is cohort-specific and explains changes in the returns to education over time. This is relevant for Jordan, as Assaad and Saleh (2018) find that the increase in supply of local schools has increased intergenerational educational attainment. In addition to that reasoning, Campbell and Pearlman (2013) point to the various social and historical contexts that cohorts have unique experiences and as a consequence are of importance to studying the gender wage gap.

⁸ To equally distribute the working population, I take four cohorts, each spanning 10 years. This range allows for better interpretability, as using a smaller range may be susceptible to irregularities or random quality of a certain cohort (Campbell and Pearlman, 2013)

No distinction is made between categories of education. Rather, two education dummies (completed schooling at 18, and completed schooling after 18) are used in the model since the focus is on the phenomena of the high numbers of university graduates (Arellano and Bonhomme, 2017). While there has been increasing literature on vocational education in developing countries, numbers of vocational education graduates in Jordan remain low and the issue of oversupply of higher education graduates remains prevalent. (Assaad, 2012). There are twelve dummies for Jordan's governorates (Ma'an is the base category). An additional dummy variable for marital status is added, which takes the value of one if the respondent is married and zero if (s)he is single. 72% of the men are married and 75% of the women are married.

One of the most difficult decisions to make vis-à-vis the empirical specification has to do with the choice of the exclusion variable. By rule, the exclusion restriction must be a factor that influences the participation decision but does not influence wages. Two commonly found exclusion variables in mainstream economics literature are partner's income and the number of young children, typically under the age of five (e.g., Buchinsky 2001; Martins 2001; Mulligan and Rubinstein 2008; Chang 2011; Machado 2012).

The notion behind using partner's income relates to assumptions about negative selection (Neal, 2004; Dildar, 2015), namely if one partner, typically the husband, earns a reasonable amount, the other partner, typically the wife, is likely to not work. However, the extent to which this assumption is generalizable is disputable, and a number of studies have

found that it is not a valid instrument (Huber and Mellace, 2011; Keane, 2011).

The justification behind using children under the age of five, while understandable, is problematic in practice, as young children are likely to not only affect female labour supply but also wages. Raising young children not only affects reservation wages, as it is a costly endeavour, but is also time consuming. In this sense, young children are likely to affect wage-earning ability (Keane, 2011). Nevertheless, in estimating participation, number of children remains an important variable and is included in the probit model but not as an exclusion variable. The number of children is split by age categories (six dummies, having a child aged 1 or younger is the base category) are included.

Taking into consideration these common approaches and the context of Jordan, choosing an exclusion variable is not a straightforward task. First, relying on partner's income alone is an insufficient approach to understanding household relations, as nuclear families are not the norm in Jordan and other sources of household income may influence labour supply decisions. Second, while traditionally high fertility rates are on the decline in Jordan, there is little evidence to show that number of children differs among employed and unemployed women. Again, this is an important contextual difference where nuclear families are not the norm, and extended family members often help with child rearing.

Thus, in a similar vein to Lenze and Klasen (2017), I use the cluster average of working status by gender (in other words, the male/female employment rate by cluster) as the excluded regressor. In this spirit, the

concept of nuclear families is evaded, and the communal culture of Jordan is worked into the model. Nevertheless, it must be noted that while cluster average employment rates could be related to wages, it is difficult to entirely avoid this. Other variables were tested, such as non-labour market income, as an indicator of reservation wage. However, this was not a significant determinant of participation, possibly supporting arguments which state that earnings are a stronger indicator of success for men than women (Kanazawa, 2005; Lenze and Klasen, 2017).

Numerous factors that can encourage or discourage employment, particularly for women. The literature reveals contradictory signs for female labour force participation over time. For example, conventional economic theories posit that women positively select into employment if market wages are higher than reservation wages (Blundell et al., 2007). There is also the view that certain women may negatively select into the labour market due to assortative mating (Neal, 2004). However, in developing countries, participation is better explained through other venues. Klasen and Pieters (2013) show that for India, despite declining fertility rates and increasing educational attainment, female labour force participation remains stagnant due to a host of factors such as stigma against certain work and decreased employment in suitable sectors. This is similar to the case of Jordan. As such, using average female employment rate may represent the dual forces of labour supply and demand, by acting as a proxy for employment opportunities for women in the vicinity as well as unobserved attitudes towards women's work (Lenze and Klasen, 2017).

The argument for using cluster average of working status becomes more evident when looking at Table 2-1 Jordan's labour market is highly centralised with 46 % of (total) jobs based in Amman⁹ (DoS, 2017). However, norms generally tend to prevent women from working far from home (Miles, 2002). This can even be complicated for women working in Amman where typically most jobs are located in West Amman (Potter et al, 2007). Table 2-1 illustrates these patterns by cross tabulating the location of residence (on the vertical) and the location of work (on the horizontal) with the numbers in each cell representing the percentage of individuals that fall in each category. The figures show that men are much more likely to commute than women. The difference is particularly evident when looking at short distances such as Zarqa to Amman (29.4km)¹⁰, whereby 8% of the and only 3% of the working women commute. It can also be seen, for example, how men in Zarqa are more likely to travel to other governorates, whereas women are either in the same place they live in, or try to commute to Amman only. In places such as Mafrq or Ma'an that generally suffer from high unemployment rates, it can be seen how men are more mobile compared to women. It may be said that women who are able to commute, have unobserved characteristics such as less conservative families, or are good negotiators or must work out of financial necessity.

Another final important note to highlight is that while men are more willing and able to commute for jobs, (thus increasing their labour market participation and ability to deal with local unemployment), they may be

⁹ There is very little variation in the female employment rate between urban and rural areas in Jordan. Furthermore, 90% of Jordan's population lives in urban areas (Department of Statistics, 2017)

¹⁰ Table 2-6 in the appendix (p. 85) summarises the distances between governorates in Jordan

travelling for low paying jobs – thus wages are more dispersed across the distribution.

Table 2-1
Commuting percentages for men and women

		Place of work											
		Amman	Balqa	Zarqa	Madaba	Irbid	Mafraq	Jarash	Ajloun	Karak	Tafleeh	Ma'an	Aqaba
		Males											
Place of residence	Amman	74.2	6.8	5.2	7.5	0.6	2.0	1.3	0.8	2.3	2.3	1.5	3.9
	Balqa	5.0	82.8	1.4	-	-	0.6	-	-	0.2	-	-	0.5
	Zarqa	7.7	1.9	72.8	1.9	0.3	3.8	0.5	-	0.9	-	0.9	2.0
	Madaba	1.6	0.4	0.8	81.4	-	-	-	-	-	-	-	0.2
	Irbid	5.7	4.7	9.4	0.6	93.7	22.0	7.8	14.4	3.6	2.6	6.7	7.8
	Mafraq	1.4	-	4.6	-	1.6	62.8	-	-	0.2	-	1.1	1.3
	Jarash	1.4	0.2	1.9	-	1.1	2.5	81.8	-	-	-	-	0.2
	Ajloun	1.1	-	2.0	-	1.5	3.0	1.1	77.8	-	-	-	0.3
	Karak	1.3	-	1.1	-	0.1	0.5	-	-	84.5	9.2	6.2	5.8
	Tafleeh	0.5	-	0.2	-	-	-	-	-	1.6	75.6	5.1	2.7
	Maan	0.2	-	0.1	-	-	-	-	-	0.4	-	71.1	5.4
	Aqaba	0.0	-	0.1	-	-	-	-	-	-	-	0.3	65.5
			Females										
	Amman	86.4	2.7	2.8	-	-	-	-	-	-	-	-	-
	Balqa	5.5	93.1	-	-	-	-	-	-	-	-	-	-
	Zarqa	3.5	-	91.5	-	-	-	-	-	-	-	-	-
	Madaba	1.2	-	-	95.0	-	-	-	-	-	-	-	-
	Irbid	1.3	-	-	-	97.5	-	-	-	-	-	-	-
	Mafraq	0.0	-	-	-	-	95.1	-	-	-	-	-	-
	Jarash	0.9	-	-	-	-	-	95.2	-	-	-	-	-
	Ajloun	0.2	-	-	-	1.1	-	-	97.1	-	-	-	-
	Karak	0.3	-	-	-	-	-	-	-	99.4	-	-	-
	Tafleeh	0.0	-	-	-	-	-	-	-	-	96.1	-	-
	Maan	0.0	-	-	-	-	-	-	-	-	-	95.4	-
	Aqaba	1.8	-	-	-	-	-	-	-	-	-	-	95.9

Data source: Department of Statistics¹¹ (does not include those who travel abroad for work), averages for years 2010 and 2016 are displayed. (Dash denotes either zero or a figure below 0.05%)

¹¹ <http://dosweb.dos.gov.jo/labourforce/employment-and-unemployment/>

2.5 Data and Jordanian context

2.5.1 Data description

The dataset used is the Jordanian Labour Market Panel Survey¹² for 2010 and 2016. The Economic Research Forum (ERF) in cooperation with the Department of Statistics (DoS) in Jordan carried out the JLMPS. It is a nationally representative survey. Individuals of working age are selected. Full time students are dropped from the sample. Observations that do not report education (126 observations) are dropped. A casual look at the means of the sub-sample of these 126 individuals and the rest of the sample indicates that these means are not significantly different and therefore dropping these observations is unlikely to produce a selection bias. In addition to that, employed individuals who do not report a wage are dropped from the sample (74 observations). Following Arellano and Bonhomme (2017), the self-employed are dropped from the sample as well. Typically, the self-employed constitute a large part of the workforce in developing countries, however it was found to be pertinent to remove this category from the analysis due to many missing wage observations. Hourly wages, as calculated within the survey, are used. The remaining overall sample size is 21,410, with 9,912 males and 11,498 females.

2.5.2 Comparative characteristics of employed and not employed persons

Table 2-2

Table 2-2 compares the means of key characteristics of employed men and women with those of men and women who are not employed. Firstly, women's average monthly wages are 371 Jordanian Dinars, much lower

¹² Available for public to access via www.erfdataportal.com

than the average monthly wage for men at 523 Jordanian Dinars. However, women's participation rate is 14% compared to men's participation rate of 70%.

There is little difference between the ages of employed men and women, where both average at 35 years of age. The composition of female employees in the workforce mostly comprises of young women where the majority are in birth cohorts of 1972-1983 (42.65%) and 1983-1994 (35.54%). Similarly, a rather young male workforce is also prevalent (38.5% are of birth cohort 1972-1983 and 36.74% are of birth cohort 1983-1994). Early retirement among men however is also a very prevalent feature of Jordan's labour market (Al Hawarin, 2014). Both unemployed men and women are of older age, averaging at 39 and 37 years respectively, compared to their employed counterparts.

There is a higher proportion of married men in employment (0.7474), compared to married women (0.5872). Moreover, there is a marked difference between employed and not employed men, where employed men have higher numbers of children at younger age group. For example, for children under 1 and children aged 2, the proportions are almost double for employed men (0.1215 and 0.1239 respectively) versus not employed men (0.0657 and 0.0671 respectively). However, there is little difference between the numbers of children for employed and not employed women, which is indicative of the double work burden (Krafft and Selwaness, 2018).

Table 2-2 also shows that the proportion of employed women who complete higher education is 0.8351. This is much higher than the

proportion of employed men who complete higher education (0.4984), and reveals that men of all educational levels are likely to be in employment, whereas for women continuing higher education is a precursor for employment.

Employed women in Jordan are more likely to come from wealthier households having an average wealth score of 0.45, compared to -0.01 for unemployed women. Taraki (1995) explains that female participation in the Jordanian labour market since the 1970s mostly comprised of upper class, urban women. It follows that employed women are more likely to have higher educated parents. That is, 11.56% of employed women have university educated fathers, and 3.36% have university educated mothers, both figures are substantially higher than those of men and women who are not employed. By contrast, among men, there is less disparity in household wealth and a less obvious pattern in terms of parental education. For instance, employed men have an average household wealth score of 0.02 compared to -0.17 for unemployed men.

Table 2-2

Descriptive statistics of employed and not employed men/women

	Not employed		Employed	
	Women	Men	Women	Men
Monthly wage (Dinars)	-	-	371.83 (5.9)	523.23 (9.8)
Labour force participation %	-	-	1.56 (0.36)	69.77 (0.45)
Age	37.59 (10.21)	39.66 (11.48)	34.52 (8.03)	35.02 (8.67)
Birth cohort 1950- 1960	10.42 (0 .30)	14.71 (0.35)	2.87 (0.16)	4.76 (0.21)
Birth cohort 1961- 1971	24.75 (0 .43)	27.93 (0.44)	18.88 (0.39)	19.94 (0.39)
Birth cohort 1972- 1982	32.90 (0 .46)	23.79 (0.42)	42.65 (0.49)	38.50 (0.48)
Birth cohort 1983- 1994	31.81 (0.46)	33.40 (0.47)	35.54 (0.47)	36.74 (0.48)
Married	78.88 (0.41)	66.70 (0.47)	58.72 (0.49)	74.47 (0.43)

Continued higher education	40.89 (0.35)	31.59 (0.29)	83.51 (0.28)	49.84 (0.39)
Children under 1	11.63 (0.32)	6.57 (0.24)	11.35 (0.31)	12.15 (0.32)
Children aged 2	12.18 (0.33)	6.71 (0.06)	10.16 (0.30)	12.39 (0.32)
Children between 3-4	23.89 (0.43)	14.38 (0.14)	19.18 (0.39)	23.16 (0.23)
Children between 5-10	42.56 (0.49)	31.77 (0.31)	32.92 (0.47)	35.16 (0.35)
Children between 11-16	37.92 (0.49)	34.57 (0.34)	24.61 (0.43)	23.83 (0.23)
Children aged 17-18	19.55 (0.39)	18.65 (0.18)	9.74 (0.29)	9.88 (0.29)
Household wealth	-0.01 (0.96)	-0.17 (1.07)	0.45 (0.81)	0.02 (0.91)
<i>Father's education:</i>				
Illiterate	36.62 (0.48)	45.13 (0.50)	25.87 (0.43)	36.62 (0.47)
Read & write	38.97 (0.49)	32.34 (0.46)	34.07 (0.47)	38.97 (0.48)
Basic education	9.63 (0.29)	9.40 (0.29)	12.57 (0.33)	9.63 (0.31)
Secondary	7.59 (0.26)	5.91 (0.23)	10.18 (0.0.30)	7.59 (0.27)
Post-secondary	2.53 (0.15)	2.15 (0.14)	5.75 (0.23)	2.53 (0.17)
Higher education	4.66 (0.21)	5.07 (0.05)	11.56 (0.31)	4.66 (0.22)
<i>Mother's education:</i>				
Illiterate	61.89 (0.48)	67.25 (0.46)	48.17 (0.50)	58.63 (0.49)
Read & write	23.55 (0.42)	18.39 (0.38)	23.55 (0.42)	23.55 (0.42)
Basic education	7.01 (0.25)	7.20 (0.25)	9.41 (0.29)	9.16 (0.29)
Secondary	4.41 (0.20)	3.53 (0.18)	8.63 (0.28)	5.14 (0.22)
Post-secondary	1.93 (0.13)	2.02 (0.14)	6.89 (0.25)	2.45 (0.15)
Higher education	1.21 (0.10)	1.61 (0.12)	3.36 (0.18)	1.08 (0.1)
N	9,825	2,997	1,674	6,916

Data source: JLMPS 2010, 2016. Standard deviation in brackets

2.6 Preliminary analysis of labour market participation trends and wages

2.6.1 Probit results

Following Arellano and Bonhomme (2017) I first estimate the probit model of labour market participation by gender and marital status.

Columns one and two highlight the estimates for single and married men respectively. A chow test confirms separating the sample by marital status for women ($\chi^2=1.48$, $p<0.00$) and men ($\chi^2=2.23$, $p <0.00$).

Starting with the results for women in the first two columns of Table 2-3, it can be seen that the coefficient for cluster average of female employment is positive and significant for both single and married women, similar to the findings of Lenze and Klasen (2017). By contrast, the corresponding coefficients for single and married men (columns 3 and 4) are negative and significant. These results are consistent with those observed in table 2.1. Next, the coefficients of higher education of 1.029 for single women and 1.276 for married women, significant at the 1% level exceed the corresponding coefficients of 0.117 for single men and 0.473 for married men, respectively. In other words, while as expected education plays a large role in ensuring employment, it matters more for women than for men and for married women more than for single women.

Among single women, it is seen that younger cohorts are also more likely to be employed. All coefficients related to the 1972-1982 cohort are positive and significant, whereas all coefficients related to lower cohorts, except that related to the 1961-1971 married women cohort are negative and in the majority of cases significant. In other words, across the two categories of men and women younger cohorts are more likely to be employed.

The probability of employment for single women is significantly increased if living in central areas such as Amman (coefficient of 0.529)

and Zarqa (coefficient of 1.24) or northern governorates such as Irbid (coefficient of 0.767) and Mafraq (coefficient of 0.852), as opposed to governorates in the South of Jordan such as Karak (coefficient of -0.761) compared to the omitted category of Maan. There is a less discernible pattern among married women for governorate of residence alone. In line with qualitative research on Jordanian women's employment, young single women living in central areas have more mobility as well as social support groups that facilitate paid employment (Droeber, 2002) particularly with the absence of marital household obligations or caregiving of extended family (Kawar, 2005).

Table 2-3
Results of probit model

	Single Women	Married women	Single Men	Married men
Cluster avg. of employment	0.145***	0.076***	-0.144***	-0.216***
Continued higher education	1.029***	1.276***	0.117*	0.473***
Birth cohort 1950- 1960	-0.668***	-0.136	-1.276***	-1.160***
Birth cohort 1961- 1971	0.017	0.295***	-0.448***	-0.596***
Birth cohort 1972- 1982	0.409***	0.453***	0.133**	-0.108**
Amman	0.529***	-0.289	0.126	0.524***
Balqa	0.376**	-0.056	-0.349**	0.0878
Zarqa	1.224***	0.0856	1.131***	1.837***
Madaba	0.239	-0.293*	-0.282*	0.142
Irbid	0.767***	0.023	0.527**	1.183***
Mafraq	0.852***	0.316*	0.507***	0.726***
Jarash	0.296	-0.129	0.261	0.555***
Ajloun	0.863**	0.304	1.142***	1.184***
Karak	-0.761**	-0.295	-1.092***	-1.321***
Tafileh	0.202	0.272*	0.081	0.682***
Aqaba	0.412	-0.163	-0.082	0.768***
Child aged 2	-0.276	-0.069	Omitted	0.127**
Children between 3-4	-0.342	-0.072	Omitted	0.100**
Children between 5-10	0.053	-0.011	Omitted	0.074*
Children between 11-16	0.042	-0.106*	Omitted	-0.215***
Children aged 17-18	-0.287*	-0.154*	Omitted	-0.126***
Constant	-4.12***	-3.14***	12.14***	18.38

Significance less than 0.10 *, less than 0.05 ** less than 0.01***

It is interesting to note that while children do not negatively or significantly affect the probability of women's employment, they have a significant and positive effect on the participation of married men. The strongest effect is seen for children of 2 years of age, with a coefficient of 0.127. Moreover, it can be seen that for both men and women, the presence of older children in the household significantly and negatively affects the probability of employment.

Men and women who have older children belong to older cohorts that are less likely to be employed due to early retirement and securing income via alternative means (Al Hawarin, 2014) and high levels of Jordanian parental involvement especially in adolescent years, by both mothers and fathers, is a time fulfilling preoccupation (Smetana, 2017; Takash and Al-Hassan, 2013).

2.6.2 Wage quantiles and occupations

Table 2-4 highlights some initial features of wage inequality. By reporting the mean (logarithms of) wages as well as the logarithms of wages across select quantiles, this allows for comparison between groups (men and women) and within groups (among men, among women).

Looking first at the between patterns, it can be seen that the mean of the logarithm of married women's wages is 0.77 which is higher than the corresponding mean of the logarithm of married men's wages (0.69). By contrast, single men experience higher wages than single women (corresponding means of 0.52 against 0.46). This pattern is mirrored by wages in the lowest 10 percentile of the distribution, whereby married women's wages exceed those of married men, while single men's wages

exceed those of single women. However, at the highest 90 percentile, we observe that men’s wages exceed those of women irrespective of the marital status.

As previously alluded to in the discussion of Table 2-1, the wage distribution for men is likely to be more dispersed than that of women as men are more likely to take low wage jobs. Moreover, recall that wages uncorrected for selection can be either underestimated in the case of positive selection or overestimated in the case of negative selection (Herrmann and Machado, 2012). In the timeframe of this study, the employment rates for men and women vastly differed. The JLMPS shows in 2010 the male employment rate was 79% (63% in 2016), whereas in comparison the female employment rate was 16% (13% in 2016). This indicates that correcting for selection is necessary as female participation rates are low in comparison to men¹³.

Table 2-4
Hourly log wage, by gender

	mean	min	max	q10	q50	q90
	Men					
	Married					
	0.69	-2.12	4.84	-0.14	0.63	1.42
	Single					
	0.52	-0.73	4.64	-0.36	0.31	1.40
	Women					
	Married					
	0.77	-0.98	4.53	0.07	0.77	1.35
	Single					
	0.46	-0.84	4.06	-0.47	0.28	1.14

Data source JLMPS 2010, 2016.

¹³ Moreover, correcting for selection is necessary not only because female participation rates are low in comparison to men’s but also because of the change in men’s participation over the years. Assaad et al (2018, p.16) attribute the fall in male participation rates due to the changing composition of the migrant working population in Jordan. In 2010, most of the working population included Jordanians and economic migrants from Syria or Egypt. Yet, in 2016 the Syrian working population included refugees with lower participation rates.

The existing literature on the Jordanian labour market is also useful in explaining the observed higher wages of married women in Table 2-4, at least vis-à-vis the averages and the lower percentiles. Gender norms influence the occupations that are acceptable for women, this consequently affects wages. For example, supportive channels to ensure women's access to higher paying jobs can be attained via class or family connections (Taraki: El-Solh, 2003), as a result of public sector hiring (Assaad, 2014), supportive male guardians¹⁴ (Abadeer, 2015) or even conditions imposed by family that stipulate that women are employed in respectable establishments¹⁵ (Miles, 2000; Assaad, 2014; Lenze and Klassen; 2017; Krafft and Selwaness, 2018).

To follow up on these observations table 2-5 below summarizes both participation rates in occupations and the occupation specific log hourly wages across quantiles.

Firstly, Table 2-5 shows that women's participation in the labour market is largely concentrated in professional occupations¹⁶. Women account for 20% of total labour market participation, of which 10.41% of women are in the professional category. Additionally, the share of men and women in professional occupations are similar in comparison (13.42% and 10.41% respectively).

¹⁴ As women's employment is often encouraged or discouraged by a male guardian (Abadeer, 2015)

¹⁵ For example, international companies are preferred to small, local businesses. This typically influences wages.

¹⁶ As defined by the International Standard Classification of Occupations

Secondly, Table 2-5 shows that female wages are higher than male wages however female participation rates are much lower than male participation rates. For example, in the service and sales occupations, women report higher log wages across all percentiles. Yet the percentage of women working in sales is 1.3% of the total labour market, which is drastically lower than the 24.28% of men who are employed in service and sales occupations.

Thirdly, the distribution of wages for men is much broader than the distribution of wages for females, as evidenced by the 10th percentile. For example, men's lowest wages reach -0.96 log points (for managers) however, note that there are no observed female wages for this occupation category. Whereas the lowest wages for women reaches -0.41 log points (for plant and machine operators), which is similar to the wages men receive in this occupation group.

Table 2-5
Wage quantiles (hourly, log wages) across occupations, by gender.

Occupation	q10	q50	q90	Share of labour market
Males				
Managers	-0.96	0.50	1.21	0.64%
Professionals	-0.59	0.53	1.19	13.42%
Technicians and associate professionals	-0.34	0.52	1.18	5.36%
Clerical support	-0.34	0.53	1.17	6.77%
Service and sales	-0.44	0.53	1.18	24.28%
Skilled agricultural, forestry and fishery	-0.52	0.52	1.20	2.08%
Craft and related trades	-0.37	0.52	1.20	11.09%
Plant/ machine operators & assemblers	-0.42	0.53	1.20	9.28%
Elementary occupation	-0.47	0.53	1.21	5.48%
Females				
Managers	-	0.56	1.21	0.34%
Professionals	-0.33	0.61	1.17	10.41%
Technicians and associate professionals	-0.35	0.62	1.19	2.16%
Clerical support	-0.37	0.60	0.60	2.17%

Service and sales	-0.33	0.59	1.19	1.30%
Skilled agricultural, forestry and fishery	-0.22	0.63	-	2.54%
Craft and related trades	-0.38	0.64	1.31	0.71%
Plant/ machine operators & assemblers	-0.41	0.55	-	0.13%
Elementary occupation	-0.38	0.63	0.59	1.82%
				100%

Data source is JLMPS 2010, 2016. Occupations follow International Standard Classification of Occupations, aggregated at major group 1. Last column presents the percentage of males/females in each occupation as a share of the total labour market. Each cell shows the log hourly wage for the occupation in that percentile

Professional occupations typically require higher skills and offer higher wages. Given the low FLP, it appears uncharacteristic for women to be concentrated in high paying jobs. However, this category includes teaching, social work, governmental administrative jobs and health professionals that are presumed both to accommodate gender and social norms (Sonbol, 2003; Mryyan; 2014; Selwaness and Krafft, 2018).

Table 2-5 shows that wages are observed for all occupations at the median, unlike at the 10th and 90th deciles where there are no observed wages for women at certain occupations. Additionally, wages for both men and women at the median are close in comparison. As such, the composition of occupations at the 50th decile deserves further inspection, as shown in table 2-7 (see section 2.9 Appendix, p.85).

The most notable figures from Table 2-7 (see section 2.9 Appendix, p.855) show that women's employment is concentrated in teaching occupations. Specifically, 21.52% of women in the labour market are teaching professionals in the public sector, 10.76% are teaching professionals in the private sector. Additionally, men's employment at the median is also concentrated in the public sector. These jobs too are reflective of gender

norms, with 30% of men employed as protective service workers (such as police officers, prison and security guards, and fire fighters).

In Jordan, employment in the public sector is deemed acceptable for women as the bulk of jobs in this sector involve teaching, often in gender segregated schools. The public sector accommodates gender norms too by granting generous maternity leave and offering shorter working hours (Assaad, 2014). By contrast, employment in the private sector is considered unsuitable as many occupations are in sales or services that involve dealing with strangers, long working hours and being in the public sphere (Peebles et al, 2007; Kawar, 2005). In the empirical literature for Jordan, Alfarhan (2015) using the Household Expenditure and Income Survey, shows that indeed the average wages for women, when corrected for selectivity, are favourable in the public sector.

However, the raw wages presented in this section alone do not take into account participation rates. As can be seen from Table 2-5, the participation rates of men and women greatly differ across occupations and quantiles. The following section draws from the selection corrected wage distributions to further analyse these identified wage trends.

2.7 Selection corrected wage distributions

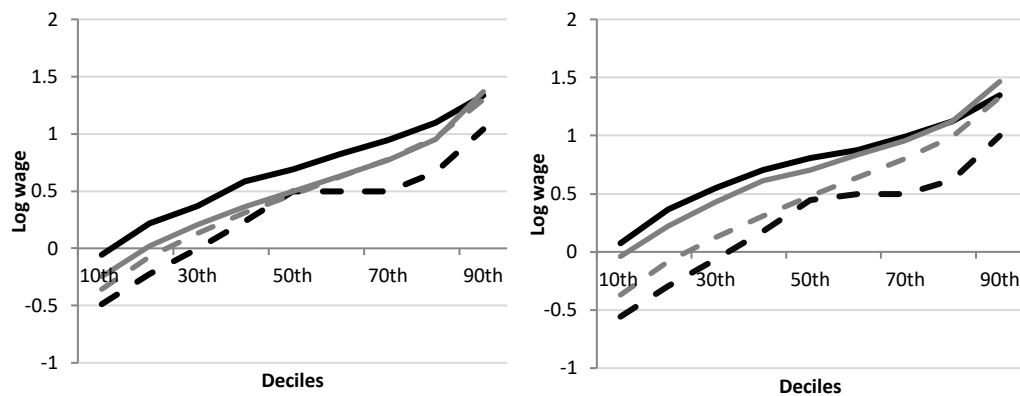
Despite the increased probability of higher educated women entering employment (as shown in Table 2-3), women's aggregate participation rates in the labour market remain at a notoriously low 14% as shown in Table 2-2

. Low levels of participation could mean that selection into employment

is non-random, thus affecting the wage gap itself where women who do enter paid employment may have comparably high-wage characteristics (Olivetti and Petrongolo, 2008). Selection is important because it contributes to the effect of the wage gap along the distribution (Töpfer, 2017). Recall that there is typically a negative relation between gender gaps in employment and earnings (Olivetti and Petrongolo, 2008; Christofides et al, 2013; Perugini and Selezneva; 2015). This section continues analysis of selection into employment in order to estimate wages at the quantile level.

This section begins by comparing wages of women and men among each other (within group inequality) and then moves on to analysing gender wage inequality (known as, between group inequality).

Figure 2-1
Results of quantile regression model corrected for selection



Data source is JLMPS, 2010 (left) 2016 (right). Quantiles of log hourly wages, conditional on employment (solid lines), and corrected for selection (dashed lines). Male wages are plotted in grey line and female wages are plotted in black lines.

Figure 2-1 presents the wage gap, corrected for selection¹⁷. The log wage deciles are plotted in black lines for women and in grey lines for men. The solid lines present the observed log-wages of employed individuals, conditional on employment. The dashed lines present the latent wages, or selection corrected wages. A difference between observed and latent wages shows that there is a need to correct for selection.

2.7.1 Within group inequality

2.7.1.1 Within group inequality among women

First, by focusing on women's wages in Figure 2-1, it is clear that there is a marked difference between observed (solid lines) and latent wages (dashed lines) for 2010 and 2016. This proves the necessity of correcting for selection.

The patterns in figure 2-1 indicate that there is overall positive selection as evidenced by the large gap between observed (solid, black lines) and latent wages (dashed, black lines). In particular, figure 2-1 shows large gaps between observed and latent wages for women at 10th-20th and 70th-80th deciles. However, the selection effect decreases – as witnessed by the smaller gap between observed and latent wages – at the 50th and 90th percentiles.

At the 10th-20th and 70th-80th deciles, employed women are able to secure wages that are higher than a woman drawn from the population with average characteristics. That is, unobserved characteristics enable

¹⁷ The table of results which figure 2-1 is based on is presented in the appendix as table 2-8

participation in the labour market. Revealing that it is more difficult for the average Jordanian woman to access jobs at these percentiles in particular.

At the 50th and 90th percentiles, participation is more of a random process. In other words, there is more of a levelled playing field and opportunities to enter the labour market are enabled. In line with Olivetti and Petrongolo (2008), high participation decreases the gender wage gap. As shown in the descriptive statistics, Table 2-7, women's participation at the 50th decile is high – particularly in public sector jobs that accommodate gender norms. A similar association prevails at the 90th decile, where Taraki (1995) reflects that it was not unusual for women from high socioeconomic backgrounds to be in public workspaces and engage in paid employment. Table 2-2 reinforces the case for the 90th decile, showing that employed women are more likely to originate from relatively wealthy households.

Figure 2-1 does not account for the disaggregation by marital status that was studied in earlier tables. Yet, the estimated copula has a rank correlation of -0.99 for married females, and 0.6599 for single females. In other words, while there is positive selection for married females, there is negative selection for single females. This provides a viable explanation of the wage inequality patterns observed in table 2-4. The different selection patterns among married and single women suggest that single women in the Jordanian labour market tend to have lower earnings potential than married women. As such, this important distinction in selection patterns ascertains the explanations for high dropout rate of women at the time of marriage or child rearing in Jordan (Assaad, 2014).

Single women have low earnings potential. In a competitive labour market with limited job opportunities and a patriarchal society, women who enter employment - and remain after marriage - have strong capabilities or conditions that support employment.

2.7.1.2 Within group inequality among men

Now, turning to male wages, an interesting change in selection patterns arises. In 2010, the gap between observed (grey, solid lines) and latent (grey, dashed lines) wages was almost non-existent. However, in 2016 a drastic change occurs and there is much higher evidence of positive selection. The estimated copula has a rank correlation of -0.99 for married males, and of -0.61 for singles. This means that individuals with higher wages (higher U) tend to participate more (lower V), otherwise termed positive selection. It can also be seen that the selection effect is stronger for single than for married men.

The change in 2016 is the drop in male employment rate from 70% in 2010 to 63% in 2016. The composition of the labour market changed to encompass a larger migrant working population in search of employment. Positive selection is induced and can be explained as a result of changed labour market composition. First, job creation did not increase in the period of 2010-2016. Instead, the Jordanian labour market faced economic difficulties and jobs were limited, so competition for jobs increased (Assaad and Salemi, 2018). Under positive selection, those with desirable characteristics will select into employment.

Secondly and more specifically, the probit model (Table 2-3) showed that university level education increases the likelihood of employment. Using the JLMPS data, Assaad, Krafft and Keo (2018) examine employment rates by education level and show that male employment among those with less than university education decreases in 2016. So, high wage characteristics become more desirable in 2016 than 2010.

Thirdly, in figure 2-1 it can be seen that within group inequality increases, particularly with large gaps between observed (grey, solid lines) and latent (grey, dashed lines) wages at the lower end of the distribution. Assaad and Salemi (2018) confirm trends of the poorest quantiles struggling to find employment in a labour market with limited opportunities. Thus, men in low paying jobs are being pushed out of the market due to tough competition.

2.7.2 Between group inequality

Finally, turning to the gender pay gap, figure 2-1 shows the selection corrected wages in dashed lines. Three main trends appear along the wage distribution: a heightening glass ceiling, evidence of sticky floors and an interesting convergence of wages around the median.

Firstly, heightening glass ceilings are depicted in figure 2-1. There is a widening gap between the grey dashed lines (men's wages) and black dashed lines (women's wages) in the 70th-90th deciles. In numbers in table 2-8 (appendix, p.85) show that the gender wage gap is between 0.26 and 0.3 log points in the upper deciles in 2010. Whereas in 2016, the gender wage gap widens and ranges between 0.3 and 0.38 log points.

Secondly, there is a display of sticky floors. A persistent gap between the grey dashed lines (men's wages) and the black dashed line (women's wages) at the 10th and 30th percentiles. Table 2-8 (appendix, p.85) shows that women earn between 0.13 and 0.15 log points less than men in 2010. The gender gap widens in 2016, and women earn between 18.7 log points to 22 log points less than men.

Thirdly, male and female wages converge around the 50th percentile, as figure 2-1 shows the grey dashed line and black dashed line connect. Table 2-8 (appendix, p.85) shows that in 2010, women's wages were slightly higher than men's wages at the median by 0.026 log points. However, in 2016, men's wages became slightly higher than women's wages by 0.03 log points.

The presence of an increasing glass ceiling in the face of patterns of selection is an intriguing finding. For example, the expectation is that with overall higher positive selection in 2016 due to the drastic change of the composition of the labour market, those with desirable characteristics would be able to earn higher wages. Instead, the reality is that male and female wages do not converge. Rather, gender wage gap becomes larger for women at the upper end of the distribution.

Changes in the labour market created conditions that made it difficult for men at the lower deciles. However, the gender wage gap, shows that changes in the labour market became more difficult for women at lower deciles. Once more, despite the large decreases in male wages at these deciles in 2016, women's wages drop even more suffering an approximate

percentage decrease of 30%. In line with literature, women's employment is viewed as disposable and men's employment is prioritised (Kelly, 2010).

The closeness of wages at the median can be explained by table 2-7 (appendix, p.85) which showed that women's employment at the 50th decile mainly comprises of public sector jobs in the health and education sectors. During the 1970's, there was eminent progress in educating women, with the promise of public sector employment (Assaad, 2014). While men's employment is more dispersed into low paying jobs and sectors, women's employment centres around concerns about the suitability of the job, proximity to home, and work hours. Consequently, public sector employment or jobs in health or education are encouraged. Generally, public sector employment is known to be less discriminatory than private sector employment. This is especially true of Jordan (Said, 2014; Alfarhan, 2015). Moreover, taking into consideration the glass ceiling, it appears that women are penalised for taking jobs that do not follow suit with norms, however, when taking jobs that are deemed suitable, they are fairly treated.

Finally, the vast difference between the uncorrected wages and the selection corrected wages highlights the importance of accounting for selection. It is nuanced, although not uncommon, for observed wages to be higher than selection corrected wages in countries with low female labour force participation such as Italy (Piazzalunga and Tommaso, 2019) and Turkey (Tekgüç et al, 2017). That is, higher observed wages for women than men are a reflection that women with strong endowments

do in fact select into employment (Tekgüç et al, 2017; Piazzalunga and Tommaso, 2019).

2.8 Policy Discussion and Conclusion

Studies on the gender wage gap in developing countries often focus on average wages and neglect to account for low levels of female economic participation. Moreover, there are few studies that address sticky floors and glass ceilings in the Middle East, particularly none that examine this for Jordan. This article expands on the existing empirical knowledge of women's employment by utilizing a quantile regression with selection model. The main finding is the gender penalty for occupations that deviate from the norm. There is evidence of growing glass ceilings and sticky floors. An interesting convergence of wages around the median has important policy implications that can be expanded to other areas of employment.

Accounting for selection is incredibly important, as Said (2010) and Alfarhan (2015) also show in their studies of Jordan. The implications for not doing so grossly underestimate gender inequality in the labour market and can be misleading for policymakers. In this study, adjusting for selection shows the gender wage gap widens over the period studied, despite growing selection patterns for men too. Secondly, accounting for selection across quantiles underscores significant patterns of participation that affect wages. Generally, there is positive selection where women with high earnings potential enter the labour market. Around the median there is less positive selection, where structural factors may have helped more female participation, as such reducing the

gender wage gap. However, where the selection effect is strong, the wage gap widens.

This article argues that efforts by the government to hire more women since the 1970s and create inclusive working environments have had an equalising effect on wages around the median. Similar policy efforts should be extended to other sectors that necessitate flexible work hours, maternity leave and encourage the use of women's education.

For tackling sticky floors, development programs that target low-income women should be wary of honing skill sets that trap them in gendered low-income sectors and do not present room for growth. For example, programmes that target sewing, cooking, tailoring. In lower wage deciles, we see that men at the lower end of the wage distribution too are being pushed out of the labour market, thus also becoming a policy concern. As such, the recommendation is that educational programs to be tailored to improved quality of education. This area is particularly important regarding the digital economy and women's development programs i.e. rather than encouraging the flourishing investments in low skilled work like sewing and small scale projects, programmes should consider training individuals in higher tech skillsets such as coding, and other soft and hard skills that are not liable to be lost to automation (Goos, 2018).

Targeting gender norms is a good route to tackling glass ceilings. Bertrand (2018) finds that targeting gender norms from a young age through "compensatory pedagogy" is effective in changing traditional norms. The starting point for Jordan is to eliminate gendered curricular

where division of labour among men and women is prominent in the discourse (Adley, 2012).

2.9 Appendix

Table 2-6

Distances (in kilometres) between governorates

	Amman	Balqa	Zarqa	Madaba	Irbid	Mafraq	Jarash	Ajloun	Karak	Tafileh	Ma'an	Aqaba
Amman	-											
Balqa	29.1	-										
Zarqa	29.4	48.7	-									
Madaba	37.3	57.8	60.6	-								
Irbid	90.1	82.6	69.2	115.3	-							
Mafraq	69.7	79.3	42.8	97.5	46.8	-						
Jarash	49.4	44.4	44	76.9	39.2	37.4	-					
Ajloun	70.4	55	63.8	96.4	38.4	57.3	21.6	-				
Karak	130.1	150.6	148.5	113.6	201.8	185.3	171.1	192.1	-			
Tafileh	184.6	205	202.2	167.7	261.8	239	225.3	246.3	62.3	-		
Ma'an	217.9	238.3	236.2	201.2	295.8	273.1	258.7	279.7	160.3	93.5	-	
Aqaba	332.8	353.2	351.2	302.7	410.8	388	373.5	359.8	244.2	208.4	117.3	-

Table 2-7

Composition of professional occupations in private and public sectors at the 50th percentile, shares calculated by gender

	<u>Men</u>		<u>Women</u>	
	private	public	private	public
Group 1				
Hospitality, retail and other services managers		0.14%		
Production and specialised services managers			0.63%	
Group 2				
Science and engineering professionals	0.29%	0.14%	0.63%	
Health professionals	0.14%	0.14%	0.63%	1.90%
Teaching professionals	0.58%	3.91%	10.76%	21.52%
Business and administration professionals	2.32%	2.75%	6.96%	5.06%
Legal, social and cultural professionals		0.43%		0.63%
Group 3				
Science and engineering associate professionals	0.14%	1.30%		0.63%
Health associate professionals	1.74%	1.30%	0.63%	4.43%
Business & administration associate professionals	2.03%	1.30%	5.06%	4.43%
Legal, social, cultural & related associations	0.14%	1.16%	1.27%	
Information and communications technicians		0.14%	0.63%	0.63%
Group 4				
General and keyboard clerks	1.30%	4.93%	1.90%	10.76%
Customer services clerks	0.43%	1.16%		2.53%
Numerical and material recording clerks	0.29%	1.59%		

Other clerical support workers		0.14%			
Group 5					
Personal service workers	1.45%	0.87%	0.63%	0.63%	
Sale workers	3.04%	0.29%	0.63%		
Personal care workers		0.29%	0.63%	1.27%	
Protective services workers	1.01%	30.58%		3.16%	
Group 6					
Market-oriented skilled agricultural workers	0.43%	0.29%	0.63%		
Group 7					
Building and related trade workers	2.46%	0.43%			
Metal, machinery and related trades work	2.32%	0.43%			
Handicraft and printing workers	0.14%	0.29%			
Electrical and electronic trades worker	0.72%	1.45%		1.27%	
Food processing, wood working, garment	1.88%	0.14%	0.63%		
Group 8					
Stationary plant and machine operators	1.30%	0.72%	0.63%		
Drivers and mobile plant operators	5.94%	6.67%			
Group 9					
Cleaners and helpers	0.43%	1.01%	1.27%	5.70%	
Agricultural, forestry and fishery labourers		0.58%	0.63%		
Labourers in mining, construction, manufacturing	0.43%	0.14%			
Refuse workers and other elementary workers	1.45%	2.75%		0.63%	

Table 2-8
Results of quantile regression model corrected for selection

Percentiles	2010								
	10 th	20 th	30 th	40 th	50 th	60 th	70 th	80 th	90 th
<u>Women's wages</u>									
Observed	-0.056	0.22	0.372	0.586	0.69	0.821	0.944	1.099	1.335
Latent	-0.488	-0.225	-0.003	0.238	0.495	0.499	0.499	0.667	1.040
<u>Men's wages</u>									
Observed	-0.247	0.018	0.208	0.366	0.5	0.629	0.772	0.954	1.368
Latent	-0.357	-0.075	0.131	0.313	0.469	0.623	0.779	0.966	1.300
2016									
<u>Women's wages</u>									
Observed	0.074	0.366	0.549	0.703	0.808	0.877	0.99	1.124	1.347

Latent	-0.557	-0.296	-0.065	0.177	0.446	0.499	0.499	0.618	0.998
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Men's wages

Observed	-0.039	0.223	0.431	0.613	0.703	0.836	0.954	1.124	1.465
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Latent	-0.370	-0.081	0.126	0.308	0.478	0.639	0.799	0.993	1.329
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Gender wage gap (Corrected for selection)

2010	-0.131	-0.15	-0.134	-0.08	0.026	-0.12	-0.28	-0.30	-0.26
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2016	-0.187	-0.22	-0.191	-0.13	-0.03	-0.14	-0.30	-0.38	-0.33
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Chapter 3 Jordanian women transcending gender norms: A qualitative analysis of non-traditional work

3.1 Introduction

There are often strict, intangible guidelines for ‘appropriate’ workplaces and ‘comfortable’ jobs for Jordanian women aimed at maintaining honour, class and femininity (Droeber, 2005). Unsurprisingly, in this context, women’s employment in Jordan is concentrated in occupations and sectors that mirror traditional gender roles as depicted in Figure 1-7, chapter 1 and chapter 2, Table 2-7. This chapter is interested in women’s employment outside of gendered jobs, that is, non-traditional jobs. To achieve this, the chapter takes a Gender and Development approach in order to highlight how existing gender norms and relations are challenged in these circumstances. Specifically, this chapter asks: what are the factors that encourage and support women who work in non-traditional jobs across socioeconomic groups?

“They [employees] know that I will support them all to change their lives. They feel they are not tied to the wrong decision, they don't accept that their husbands can hurt them or the children. They start to say to them, ‘you either get well or I’m taking the children and I’ll take care of them myself.’”

- Iman, married, 2 children, factory owner and manager with 90% retention rate of women employees

The story that Iman describes is significant and transformative. Iman, in her position as a woman managing a factory in the industrial sector in Jordan, defies traditional gender norms. Her employees too challenge

norms, yet also transform their lives. Cross-class solidarity, women gaining autonomy, and positive gender relations are the cornerstones for social change. Such changes are particularly meaningful in the face of a policy regime that undermines women's agency and reinforces gender norms.

This chapter expands the knowledge on challenging gender norms by revealing the spaces of confrontation with norms. There is a simultaneous changing yet persistence of norms due to the extent of active engagement in non-traditional jobs alongside the creation of enclaves. I define the term 'enclaves' as the niche that women carve within their sphere of employment that preserves gender norms. Enclaves are a way of etching a space that women chose, rather than what is necessarily imposed, as being comfortable. Such as plumbers who work only with women, all female factories or lawyers who do not work in courts and only in an office. Enclaves meet the acceptable gender norms criteria while being situated in non-traditional spaces.

The value of this chapter arises in exploring the strategies women use. I discuss the tensions between femininity and class that either lead to enclaves or a direct confrontation of norms. Cross-class solidarity, women gaining autonomy, and positive gender relations are the cornerstones for social change. Moreover, using vignettes as a method to amplify and centre the voices and experiences of women, sets this chapter apart from existing literature. Additionally, research on employed women in Jordan focuses mainly on the experiences of young, unmarried, middle class women (Miles, 2000; Kawar, 2005; D'Enbeau et al, 2015). This way the transience of employment is overlooked. This chapter focuses on

women's employment experiences beyond the usual dropout age at the average age of marriage at (24 years of age) (Assaad, 2014).

3.2 Conceptualising norms and Jordanian women's economic participation

3.2.1 The Gender and Development framework and norms

The Gender and Development (GAD) framework, as utilised in this chapter, focuses on socially constructed gender relations. There is emphasis on unequal power relations, whether these appear between women and men or between the rich and poor, that interfere with women's economic participation and general equitable development (Kabeer, 1994; Beneria et al., 2016). In taking a GAD approach, individuals are viewed as capable decision makers. Moreover, practical needs and strategic interests are identified by individuals (Moser, 2012). The Gender and Development approach aims to transform unequal gender relations and address gender norms. However, the position of women is not viewed as static, nor is it assumed that gender norms are perceived, experienced and contested in the same way (Connelly et al, 2000; Beneria et al., 2016).

The perception of power and social relations determines whether women bargain within the confines of gender norms or beyond (Cornwall, 2003). For example, some women may act to uphold the patriarchy through seniority or imposing cultural traditions on younger women. Kandiyoti (1988) argues that it is through an understanding of gender relations and power at stake, not "false consciousness", that women decide which norms to challenge and how to bargain. While there may not be open

disagreement, individuals may find their own ways to deviate. Women's agency, strategies of resistance and own methods of reflexivity must be taken into consideration (Kabeer, 2011). Moreover, the GAD framework recognises that analysis must be contextualised as many factors such as the economy, urban geography, culture and religion can be greatly influential in norm setting as well as challenging norms (Connelly et al, 2000).

3.2.1 Amman, Jordan in context: Class, norms and women's employment

Jordan remains a stable haven amid a tumultuous Middle East (Bank et al., 2014). Naturally, attracting those in search of political stability and economic prospects. Amman in particular is a mix of those who have fled conflict, struggle and poverty. The geography of the city reflects the dynamics and cultural identities that the waves of external and internal migrants bring, and a distinct geographic split between East and West sharply reproduces differences in socioeconomic status and culture (Potter et al, 2007). Despite the diversity of cultural identities, Tobin (2012) describes "middle-classness" culture in Amman as an imagined community surpassing traditional notions of belonging by tribe or areas of origin. The implication through such collective cohesiveness is a strong, unquestioning grip vis-à-vis the status quo and an attempt at political nationalism (Tobin, 2012, Moghadam, 2013).

Class, rather than culture, is the overriding explanation for women's low economic participation (Taraki, 1995, El-Solh, 2003). Employment patterns in Jordan over time illustrate how class intercedes in enabling opportunities. Steady increases in women's waged employment outside

the home since the seventies saw higher numbers of women from lower to middle classes joining the workforce (Moghadam 2003; Miles, 2002). A labour market that was initially comprised of urban, well-educated upper to middle class women has now changed in composition and cultural depiction. Taraki (1995) depicted the ever-increasing admittance of these women into the public domain as something that came to be seen as a societal concern. Previously, small numbers of elite working women who fashioned their own modernised lifestyle was deemed the concern of individual families. However, with increasing numbers of working women and changes to gender relations, expectations of women's conduct in the public sphere was becoming an Islamist preoccupation. Clearly, women have had different levels of norms to contend with.

It is difficult to conclusively extrapolate how sectors of employment are differentiated by class in this socio-cultural context. Although factors that prompted women from middle to lower classes to work can give some indication. Primarily, the mass public sector employment in the 1970s was closely related to increased economic participation of women (Shami and Taminian, 1990). Mandatory education funded by the Jordanian government prompted more women, not just the privileged, to enter employment. As education was deemed a gateway to public sector employment by the urban poor (*ibid*). Additionally, the mass public sector employment in the 1970s was closely related to increased economic participation of women (Assaad, 2014). Policies to support women's employment in the public sector accommodated reproductive roles by offering short work hours and generous maternity leaves (*ibid*). The concentration of women's activity in white-collar occupations,

especially education and clerical roles in the public sector, pivots around traditional gender roles (Guégnard et al., 2005). The private sector, in general, is often seen as hostile towards women as work hours are long (Peebles et al. 2007), whereas the public sector, from the Jordanian perspective, is seen as an institution that preserves women's roles in the household that relate to their 'nature' (Amawi, 2000; Hijab, 1996). These commonly held perceptions subjugate women's economic contribution by relating it to household work that is often not recognised or valued (Bhavnani et al., 2003). In essence, state employment prescribes women's roles as mothers and only further entrenches existing notions of the invisibility of women's contribution. Nevertheless, it cannot be ignored that Jordan's labour market in itself presents limited opportunities with a small private sector and traditionally low growth informal sector.

Thus, while patterns of occupational segregation can hint at how gender roles position women in Jordanian society, in itself, it is not the full picture. Through gender relations analysis Metcalfe (2006) offers a deeper perspective that unveils an emphasis on protecting femininity and sexuality in Muslim communities, wherein the workplace exhibits notions that position the role of women in society not only as mothers but within the guard of patriarchal responsibility (*Qiwama*). For example, by restricting a wife's or daughter's mobility to ensure safety or discouraging gender mixing at work. Another study showed that Jordanian society does not have a negative view of working women, as long as the role of being a mother is maintained and household tasks were performed as expected (Alian, 2009). Research on Jordanian popular editorial cartoons depicts a stiff dichotomy of the morality of working women versus nonworking women. Where the former is portrayed as "loose" and the

latter as traditional, respectable mothers (Al-Mahadin, 2003). Mothers are to be respected and hence protected. In this sense, motherhood is the socially acceptable mode of femininity and entrenches a gendered entitlement to certain treatment (Al-Mahadin, 2003). As such, further implications of *Qiwama* in the workplace are that women may accept being treated in a manner that fits this depicted persona of a mother. For example, accepting fewer promotions as it could become a heavy burden and interfere with other responsibilities at home (Syed, 2008; Banihani and Syed, 2017). Consequently, femininity is an ideological construction that is rooted in nationalistic ideals (Shome, 2001; Moghadam, 2003) in this case, femininity denotes behavioural traits that fall in line with a traditional image of motherhood. In sum, this would be exemplified through the prioritisation of household roles over promotions at work as well as being seen to be nurturing in the workplace.

Yet, women are aware of the general societal discourse that aims to position them as inferior to men. Mango (2017) illustrated the space between cautiously resisting and complying with gendered norms. Nevertheless, women's positions are not taken as static. Women actively negotiate with families, colleagues and other women; however, this is nested within larger areas of this societal discourse (D'Enbeau et al, 2015). For example, the intense centrality of jobs in Amman, particularly West Amman, presents difficulty for women to work due to restrictions on mobility as aforementioned. However, Miles (2002) asserts that women feel they can persuade their families if they feel the job is right. Typically, it is presumed that those with higher education are better able to negotiate (ibid).

The Jordanian policy regime reinforces the overriding societal discourse on women's position in the labour market through restrictions on job choice¹⁸. Sonbol (2003) focuses on and emphasizes the combined influence of conservative Islamic interpretations and tribalism on the ways laws and policies are set. For example, misinterpretation of Islamic text favoured patriarchal notions of *Qiwama*. As Alsan (2011, p.70) explains, the Arabic word *Qiwama* can be interpreted as “watch over”, “protect”, “support”, “attend to” or “look after”. It does not necessarily mean control. Moreover, under Bedouin code, attitudes towards tribal honour and shame dictate women's mobility by imposing male guardianship over women (Abu-Rabia-Queder; 2007). Despite civil service regulation (article 4) stating that equal opportunities mean prohibiting discrimination on the basis of sex, race, religion or social status, the labour code does not explicitly prohibit discrimination based on sex (OECD, 2017). Even the constitution does not prohibit discrimination on the basis of sex (article 6). Recent reforms in the labour law to support women have included longer paid maternity leave, breaks that allow for breastfeeding mothers to go home and childcare provision. However, these policies tend to have a negative effect as employers perceive working women to be a cost (Alian, 2009; OECD, 2017). As such, current policies restrict women's job choice and recent improvements focus on immediate needs rather than long term strategic efforts to empower the status of women in Jordan.

¹⁸ This refers to the labour code No.8 of 1996, article 69 which outlines the sectors and hours that women are prohibited from working in. The law does not list the sectors or hours, the minister has that discretion. Therefore, it doesn't need to be amended through parliament and can/is more easily revised. This is thought of as protection for women- with the logic behind it being that women would be exploited by their bosses by being asked to stay at work late.

Protective provisions in the Jordanian labour code (No. 8 of 1996, article 69) enact special working conditions for women. For example, protective provisions mandate suitable sectors and working hours which relegate the agency of women in choosing their careers, or having the option of taking extra shifts for increased income. These laws are reflective of social norms that believe women to be more vulnerable and neglect that men too require protective provisions (OECD, 2017). Correspondingly, social norms influence occupational segregation and mandate suitable sectors and working hours for women.

Thus, there is an association between notions of femininity, masculinity and work as the workplace has implicit boundaries that mirror society more broadly. As such, women who transcend these boundaries by working in what are perceived to be non-traditional jobs contest social norms. In this chapter I explore how Jordanian women from various socioeconomic backgrounds tackle social norms and their motives to work. The key question to ask in this regard is, what factors supported them in pursuing and continuing their careers in non-traditional jobs? In exploring this particular socio-cultural state of affairs, the opinions and experiences of women are voiced to first discuss their own understandings of gendered social order (Cornwall, 2003), to then explore how they have broken away from this established order and gained a reflexive distance (Kabeer, 2011).

3.3 Concepts, sample and method

In order to explore what are the factors that encourage and support women who work in non-traditional jobs and industries across socioeconomic groups, six months of fieldwork were conducted in 2017.

With the guidance of local Jordanian consultants in the field of women's employment, 42 women in, what are termed, 'non-traditional jobs' were selected to be interviewed.

3.3.1 Non-traditional jobs defined

Non-traditional jobs are defined as those that include work associated with typical masculine stereotype (i.e. engineers, taxi drivers, manufacturing work, plumbers...) or work that defies cultural gender norms (i.e. night shifts, lots of travelling or being in male-dominated environments). All 42 women who were interviewed held non-traditional jobs. Table 3-1 below summarises the jobs the interviewed women held, showing the number of women in each occupation. The table also shows the characteristics of each non-traditional job. The shaded squares show the prevalence of certain characteristics across occupations. The majority of jobs were often in male dominated sectors or were associated with masculine traits. In line with the literature, jobs that involve work in the public sphere and in particular, outside of a 'respectable' place of work, are viewed as non-traditional. Examples of this include engineers on worksites, lawyers in courts, and working in market places.

However, the contestation of gender norms and femininity comes not only from transcending into jobs that are deemed 'masculine' but also via contesting the societal view of women's one-dimensional roles as mothers only (Dahl and Sunden, 2018). As such, other aspects of non-traditional characteristics are jobs that involved travelling abroad or a high degree of internal travelling, as norms often dictate that women are the ones primarily responsible for children and, therefore, cannot be absent. Moreover, social norms often restrict women's freedom of

movement, ability to socialise and stay out late at night. Thus, jobs that require building working relations outside of typical office hours, often with men, are regarded as non-traditional.

Table 3-1

Occupations of women interviewed and breakdown of characteristics of non-traditional jobs

Characteristics of non-traditional jobs							
Occupation	Working late evenings	Working at night	Working closely with men/work involves building relations	Male dominated job/position	Working in the public sphere i.e. not office or factory	Job involves a lot of travel	Job associated with masculine traits
Manager at a big 4 consultancy							
Engineers (5)							
Court translator							
Lawyers (4)							
Factory owner							
Manager in Ministry of Culture							
Traders/Wholesale distribution (3)							
Programmers (5)							
Finance/banking (4)							
Graphic design printing							
Photographer							
Retail /sales (4)							
Taxi driver							
Plumbers (2)							
Factory line workers (3)							
Nurses (4)							
Hospitality (2)							

Source: Author's data

3.3.2 Selection of interviewees

As aforementioned, women's honour/dignity is often a societal preoccupation with respect to unmarried women, particularly at the start

of their careers. The difficulties new entrants to the labour market find are often referred to as a ‘new stage’ in their lives and one where tensions about social norms are met. Thus, it is a critical point where one might conform or deviate. The importance of motherhood is also what prompts women to drop out of the labour market. And so, I chose to interview women above the age of 30 in non-traditional jobs.

To select participants from different socioeconomic backgrounds, I searched for a combination of geographic, cultural and educational determinants of class. Thus, it can be seen that class is conceptualised through these main factors. Table 3-2 below summarises the three broadly defined classes and the demographic details of the 42 interviewed women. However, this sample is not generalisable and refers to a niche part of the Jordanian labour market in Amman. Additionally, since interviewees were approached through local contacts and referees, thus tightening the circle.

Table 3-2
Characteristics of interviewees

	Upper class	Lower middle class	Working class
Geography			
East Amman	0	2	14
West Amman	13	11	2
Education			
Public school	0	4	16
Private school	8	9	0
International school	5	0	0

Table 3-2 shows that upper and middle class are largely residents in West Amman, whereas the working class are predominantly based in East Amman. The concept of “two Amman’s” presents a West Amman that is typically associated with the modern side of the city whether by the newly built buildings, infrastructure or the more affluent residents of Amman. In contrast, East Amman represents the traditional side with older buildings, lower income residents and a more conservative nature (Parker, 2009)¹⁹.

As mentioned in the literature review, Amman is divided by its urban geography to reflect varied cultures that are often influential to social norms. However, another important indicator of socioeconomic background, and an influential factor to social norms, is education. There is an aspiring cosmopolitanism by the urban residents that is often infused by assumptions and understandings of the Western world via television shows (Tobin, 2012). Typically, a “modern” individual is associated with some or all characteristics such as post-high school education, fluency in English and a suburban consciousness of Western (particularly American cultural) references (ibid). On the other hand, a “traditional” individual is associated with urban poverty, public school education and conservative religious norms (Potter et al, 2007). The critical difference lays in schooling and access to quality education (public versus private schools, particularly international schools) that opens up exposure to these two notions, rather than merely an East (traditional)/West (modern) dichotomy (Al-Madahin, 2004). Table 3-2

¹⁹ For example, one aspect of defining West and East Amman is by the size of residential plots. Affluent parts of West Amman have residential plots that are at least 750 sq m. Whereas, in East Amman, residential plots are range from 400 to 200 sq.m. (Parker, 2009)

shows that the upper class are largely private school educated or benefited from international school curricular. In contrast, all 16 working class women were public school educated.

3.3.3 Vignette construction

Drawing from the GAD framework, this research emphasises women's reflections on their own motives to work, they present what they saw as agency or what their situation put them in. As such there is a focus on reflexivity that allows one to go beyond the typical binary structure-agency analysis, wherein it is understood that agency happens within a context (Archer, 2003). Therefore, the use of vignettes is helpful in involving women to create meaning. Additionally, by using vignettes to explore an area, rather than predefining it, women's voices in constructing meaning are included. As such when developing the vignettes, the aim was to not impose an assumed social construct, but to allow the participants to describe their own social experiences using their own words. This also addresses my positionality as a researcher.

The development of these vignettes followed a similar action research approach to Spalding and Phillips (2007). The source of data for the vignettes was guided by literature review and real-life experiences (Ulrich and Ratcliffe, 2008) collected from initial interviews in a scoping trip. However, this centres the researcher's voice and perception. So the next step was to use pseudonyms and change the sector of work to maintain confidentiality and share this initial draft with the trial participants, consultants and NGO workers for feedback. Then the final 'composite vignettes' were created. The most representative vignettes for the sample

I would be interviewing were chosen. While the final step of creating 'composite' vignettes could be criticized that authenticity is lost, Bradbury-Jones et al (2014) maintain that the reflections from participants preserve authenticity.

The vignettes draw inspiration from the research styles of key Middle Eastern feminist researchers such as Fatima Mernissi and Nawal El Saadawi who used stories and narratives to portray and reach out to audiences in their work. The main attraction of their methods is the ability to give voice to participants while being culturally grounded. However, some criticism has been raised around the issue of orientalist stereotypes (Abu-Lughod, 2001). The vignettes avoid the pitfalls of simple dichotomies such as what or who can be considered "modern" versus "traditional", "harems" versus "freedom" that fall prey to orientalist stereotypes by presenting a diversity of situations and outcomes.

3.4 To conform or deviate: perspectives and positioning of femininity and class

The vast majority (80%) of women interviewed, articulated that they were pursuing a passion that led them to their non-traditional career paths. Yet this was also intertwined, as summarised in table 3-3 below, with other factors that encouraged a career in a non-traditional field. For example, 25% of women interviewed relayed that their main motive to pursue employment in a non-traditional job was to attain independence financially, often under circumstances of divorce or leaving abusive relationships. Another 25% revealed they had come to a mutual decision with their husbands whereby it was understood that a dual income was

necessary to avoid poverty. Whereas, 25% of women emphasised that a dual income was not just about avoiding poverty but living fuller and enriched lives, both for themselves and for their children. A further 20% of women interviewed explained that they had adapted to decisions made for them by family members on the basis of experience or in efforts to ensure shorter working hours. Similarly, and in line with the literature, some women reiterated the importance of finding the ‘right’ environment, that is a job that appears respectable and allows for the role of motherhood to be maintained. Additionally, 25% of women particularly emphasized cultural differences among classes that pushed them towards or away from certain occupations.

Table 3-3
Motives to work in non-traditional jobs

Motive to work	Percentage of Sample	Examples of quotes
Individual financial security	25% of full sample (75% were working class, 25% middle class)	<p>“After my divorce, I wanted to rely on myself”</p> <p>“He was dangerous and I needed to be able to protect my children”</p> <p>“One employee got divorced yesterday, she’s really happy, she bought us sweets to celebrate. She has her own income now, she won’t stay with someone who is abusive”</p>
Supporting family financially	25% of full sample (85% were working class, 15% middle class)	<p>“Some people say instead of reaching out my arm (to beg) they’d rather work. Some people still say no it’s wrong, I wouldn’t let my mother or daughter go out and work. But you’re the one who will be troubled then. I don’t like that, I’d rather work”</p>

Emulating elite	25% of total sample (70% were middle class, 30% working class)	<p>“I want holidays, I want to travel, I want a richer lifestyle. He doesn’t believe in this, so I pay for it all”</p> <p>“My role model just had this air of mystery. She exuded this power and glamour. I couldn’t get that image out of my mind, but I decided I would go after that too”</p>
“Right environment”	25% of total sample	<p>“I initially thought banking was a good option, everyone says the work day ends at 3:00 PM. It’s not the case”</p> <p>“My parents were so concerned about who’s in the office with me, are there so many males, are there other girls, what do they look like? Does it look like a safe environment for a girl?”</p>
Parental or family advice	20% of total sample (58% were upper class)	<p>“I was working long hours in my old job. My husband found the public sector job for me, it wasn’t my choice, it was forced on me”</p> <p>“My father didn’t like the idea of any of us working in the public sector, but he had no issues with other sectors”</p>
Cultural differences among classes	25% of total sample (83% were upper class, 17% were middle class)	<p>“You have to deal with all sorts of people from all sorts of backgrounds. Lawyers don’t have to work in courts, I could comfortably work in the office”</p> <p>“Women shouldn’t do demeaning work, even if desperate. They can find a way to keep their femininity and not be so exposed to disrespectful people. Even in</p>

		supposedly respectable companies, they don't treat you like a lady.”
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Source: Author's data

Interestingly, it can be observed that the factors differ among working class, middle class and upper class women. Furthermore, the motives and factors that supported women to work in non-traditional jobs fall into two categories that are related to choices about class or femininity. Motives such as individual financial security, supporting family financially or emulating elite relate to improving social conditions or class status. The vast majority of these motives are relayed by working or middle class women. In a gendered context, women explain how they feel less dignified or lose *qiwama* in taking up what is explained as the role of the man to provide thus instigating feelings of class resentment. As it is believed that upper class women are often more comfortable and able to maintain a sense of femininity rather than having to work out of necessity. Whereas, motives relating to maintaining femininity are depicted through intentions such as taking family advice, choosing the right environment and cultural differences among classes. The vast majority of these motives are relayed by upper class women. Internalised beliefs about restrictions to autonomy in the name of being 'comfortable' encompass a distinct class element. It is not just about maintaining femininity but also class status (Mernissi, 1995). As such, femininity is maintained through work that is perceived to be 'comfortable' or acceptable.

Note that some of the described motives such as the 'right' environment appears contradictory. For example, a female plumber is considered unusual. However, the women who became plumbers found a way to

adapt the job that fitted this criterion. By creating an all-female environment, women found ways to enter non-traditional jobs that do not threaten gender norms. Thus, another pattern is observed, which is how women carve out a niche within their work that preserves gender norms. I term this notion as 'enclaves'. Enclaves are a way of etching a space that women chose, rather than what is necessarily imposed, as being comfortable. For example, plumbers who work only with women, lawyers who do not work in courts and only in an office. Enclaves meet the acceptable gender norms criteria while being situated in non-traditional spaces.

Structural constructs like class and notions about femininity, remain important in explaining enclaves. It is important to note that not all women created enclaves. 30% of the sample found a way to create enclaves, those who were able to create this were mostly upper or middle class women (60%), or were hired by upper class women who helped create all female environments. While in parallel, I find that the working and middle class dove directly into challenging norms. Either way (whether preserving norms or not), the women interviewed redefined or re-rationalised their roles, for example extending the notion of motherhood to 'caring for the family in an economic sense'. Thus, not all women directly and openly challenge norms yet find ways to encroach step by step into non-traditional jobs. This section delves into the reasoning behind enclaves and further examines the intersection of tensions relating to femininity and class as the premise for gender norms to change.

3.4.1 Class resentment and redefining prescribed roles

Worsening economic and difficult personal situations were understood to be a push factor to pursue non-traditional employment. Family members were seen to encourage women working in non-traditional occupations for economic security. Jamila, a nurse, explained that her husband was happy for her to work nightshifts as the pay is higher.

However, gendered norms entail an explicit notion that a man should provide, not a woman. Thus, women working out of economic need may fuel resentment. Batool, a shopkeeper living in a low-income area of East Amman, began working in order to maintain financial independence from her family after her divorce. The process of having to work made her feel that she was less dignified. As I sat with Batool in her shop she pointed out how other women treat her “*See how they talk down to me? But I had to do this for my daughter*”. Batool’s understanding of her social position is that she has lost *Qiwama*. Her original role of being a mother and wife was altered and extended. In aiming to secure financial independence and personal autonomy, her role as a mother extended to caring in an economic sense.

Mariam, a bank employee, who stressed how much she worked for the benefit of her children, also portrayed this economic extension of a mother’s role to care. “*My husband thinks that the world just includes food and water and that’s it. No activities, no holidays, no cinema every weekend for the kids, they’re 13 and 14! What about basketball, swimming, birthday parties or gifts for friends? No, no, I couldn’t accept that*”. Mariam portrays resentment towards her husband for not providing well enough in his role as a father. In not accepting this, she takes charge and thus another side to the economic

extension of a mother's role to care is the emphasis of attaining a certain lifestyle, in other words, emulating the elite. In this case, Mariam is not driven by poverty but attempts to enrich her middle class status with a lifestyle that is cultured thus emulating the upper class (Bourdieu, 1977).

It can be seen in table 3-3 that there were different motives to work among socioeconomic groups, where some work for sustenance, some work for the betterment of a leisurely lifestyle. In reflecting on motives to work, there was deviation from a prescribed position, and a change in perception of gender as demonstrated through social and power relations (Cornwall, 2003). Through social relations, Batool explained how she deviated from the belief she has about other women's situation (where she believes that women should not have to work). Whereas Mariam refers to how her husband lacks in his role to provide. That is through not accepting their situations Batool and Mariam take on roles that surpass gendered social order, wherein they provide for their children, and attain reflexive distance. While there may be resentment at having to work, both women recognise that autonomy or a change in social position can be gained, for example through redefining their roles as mothers.

3.4.2 Elite dignity and performativity of class in maintaining femininity

The centrality of family to Jordanian women's decision making is one of many nuances. While many women expressed a strong sense of agency about their job choice, some clearly explained how their family guided their decision making. It is argued that gender is socially constructed through performative connotations such as everyday discourse and

nonverbal cues (Bulter, 1990), a similar application can be used to understand the performativity of class in maintaining elite dignity and femininity. Amal, a court translator, described how she originally wanted to be a lawyer “*it’s interesting how it happened. I’m the only daughter, and the youngest child, so it’s a very sheltered life. My brother told me ‘you can’t deal with this ...it’s all people, it’s all walks of life, you’re in a private school, you have certain friends and a way of life, it would be difficult for you’, he didn’t force me, but made me rethink.*” The notion of being too sheltered as an upper class woman was reiterated for others too. Amal acknowledges her own lifeworld as a sheltered bubble of society limited to certain people and scopes of life and particularly refers to being upper class. Her brother specifically sketches the lines and articulates the performativity of class in his observation of private schools, circle of friends and the implicit standard that comes with it. Through this performativity of class, he enacts the confines of a reality by explicitly reminding Amal to what constitutes her life and as such this is how elite dignity is defined. In this sense, elite dignity is preserved via class distance.

However, Amal continued to say “*but now, as a translator, I meet a lot of women who work in courts, the ones with organisations who offer legal aid to women, women in prisons and so on... because of the honour crimes and these things that go on, it’s a tough world for women*”. Although by not being a lawyer, exposure to other scopes of life was avoided; her career path unintentionally expanded her lifeworld, raising class-consciousness. Despite the attempts to shield her, the reflexive distance she developed broadened her horizon and enabled her to manoeuvre her path towards a career she initially was passionate about. Yet, in a sense, it remains that this awareness of the lifeworlds of other women from different classes is raised from a distance

and elite dignity is maintained as the ‘troublesome’ aspect of speaking up in public courts is avoided. It can be seen how femininity here is maintained through performativity of class and enacts an elite dignity to select women. In other words, we see that femininity is only accorded to some women (Lewis, 2006). This becomes accentuated through class distance that can be a notable element of some career paths.

However, elite dignity was also a route towards rationalising work in a non-traditional way for some. For example, Nadia, an engineer, explained, “*at least in engineering, even if it’s prescribed to males, people respect the occupation*”. Thus, bringing out another dimension of the interaction between class and femininity in terms of work wherein class ignites in defining femininity. That is, femininity is upheld through respectable work attained through class standards. Here, Nadia exemplifies an understanding of social and power relations. Rana, a lawyer, further adds to this by describing how “*If you’re a skilled engineer and work on site, you have to work with people from different backgrounds²⁰. So they’re not all educated. The cultural gap is there. Most women I know don’t want that*”. A stark observation was that, even among women in non-traditional jobs who had transcended some social boundaries, there was much disparity in their reflections of their careers in relation to their assumptions about women working in other sectors. That is, breaking gender norms was rationalised in relational terms with reference to class. However, through generalising her lifeworld as a rule, Rana participates in setting the performativity of class. In this way, further entrenching class distance and maintaining usual prescribed positions. Thus, reflexive distance is not entirely gained,

²⁰ Men on worksites often tend to be young Egyptian men working in Jordan

as it is not just individual gender norms that should be recognised but also a wider social order that includes class (Kandiyoti, 1988; Kabeer, 2011).

3.5 Navigating social norms: “I’m not doing anything unusual”

Therefore, femininity is maintained in work that is perceived to be acceptable, implies a return to male authority and as such perpetuates the status quo of gender relations. We also see that different conditions produce different habitus (Bourdieu). So, we see that class is gendered and gender is classed (Atkinson, 2015). Further to that, we can conceptualise the intersection of femininity and class as one that attains aspects of symbolic violence whereby value judgements are made through degenerating comparisons of one’s own lifestyle with others. Consequently, there is a ‘gender field’ wherein there is a struggle between notions of masculinity and femininity that intersect with class (Coles, 2007). Thus, femininity and class are the cornerstones for the decision to conform or deviate from norms.

In terms of women’s work in Jordan, not only does class influence motives to work but also career path wherein women have awareness of their social order. In some regards, this class consciousness allows a reflexive distance. However, in other instances there has been scope to remain within the prescribed social order. In doing so norms are not wholly challenged. As such, on the surface it appears social norms are challenged, however, on closer inspection, aspects of social norms are held on to (due to femininity and class). Thus, this section will explore the subsequent implications of holding on to notions of femininity and class in terms of navigating gender norms. Additionally, the extents to

which women navigate their careers around gender norms stemming from family, male colleagues and cultural gap is explored. It is found that where norms are not directly challenged, the creation of enclaves ensues. These enclaves act as confines that meet the criteria of ‘acceptable’ work while being situated in non-traditional spaces. That is, femininity and class are maintained and any deviations are rationalised to meet gender norms. Thus, not all women directly and openly challenge norms through their work yet find ways to encroach step by step into non-traditional jobs. These strategies are summarised in table 3-4 below. While table 3-4 tends to show that upper class women are more likely to create enclaves, they are also more likely to be in powerful positions to challenge the status quo. The rest of the section elaborates on the nuances of these strategies and the underlying tensions between femininity and class.

Table 3-4
Analytical summary of strategies utilized by women in non-traditional jobs

	Strategies	
	Creating enclaves	Confronting norms
Family	<ul style="list-style-type: none"> - Strategizing over a long period of time combined with a slow feed of ideas to be accepted (60% MC) - Using language and behaviour that appears acquiescent (33% WC, 60%MC) - Emphasizing that workplace is an all-female environment, despite it being a male dominated industry (40% WC, 14% MC) - Rationalising job by emphasizing the philanthropic, caregiving side of a job (33% UC) 	<ul style="list-style-type: none"> - Directly challenging, negotiating or openly arguing with family members (25%, WC, 20% MC) - Proceeding with plans without waiting for permission (25% UC) - Being vocal about accomplishments and challenging demeaning remarks (14% MC) - Debating misinterpreted religious text (10% AC)
Male colleagues	<ul style="list-style-type: none"> - Looking for niches in male dominated sectors that appear suitable for women, i.e. ‘quiet’ office work rather than ‘confrontational’ public courts (30% AC) - Utilising gender capital and turning stereotypes to one’s advantage (20% MC, 33% UC) - Ignoring certain behaviour, such as men transferring departments due to having a woman as a manager, filing complaints (25% UC) 	<ul style="list-style-type: none"> - Maintaining stance and calm in the face of animosity and pursuing goals regardless (20% AC) - Gaining acceptance from colleagues by directly engaging in perceived ‘dirty’ or ‘unfeminine’ work to break stereotypes (40% WC, 14% MC) - Ensuring achievements are acknowledged and not overlooked (14% MC)

		<ul style="list-style-type: none"> - Addressing unwarranted complaints (30% MC, 14% UC) - Intentionally asking for workloads similar to male colleagues, working late hours (35% MC)
Cultural differences among classes	<ul style="list-style-type: none"> - Imposing class status (33% UC) - Looking for niches that limit cross-class interaction i.e. delegating field work or trips to courts (33% UC) 	<ul style="list-style-type: none"> - Cross-class collaboration (40% UC, 14% MC) - Using familiar, and therefore comforting, language to assure suitability of job and lack of threat (14% WC, 42% MC) - Normalising cross-class interactions (20% MC, 33% UC)

Source: Author's data

The figures in brackets represent the number of women who mentioned such strategies in their interviews. The abbreviations stand for: WC= working class, MC = Middle class, UC= upper class, AC= across all classes

3.5.1 Challenging the family view on non-traditional jobs

In line with Miles (2000), the women I spoke to see themselves as skilled negotiators, particularly when it comes to family. A range of techniques were used to negotiate as outlined in table 3-4, from shrewdly planning (60% MC) to outright challenging supposed male authority (25% WC, 20% MC). As frequent extended family interaction is common, women still negotiate social norms with their families throughout their careers, even more so in the case of women who live in the same household. For example, Maha, a middleclass IT consultant and entrepreneur, described the months of dropping hints about a training program abroad.

“It wasn’t easy to hint my family, even if they’re mostly open-minded. For months, I’d say “there’s such and such program” “oh did you see how much my friend benefited from going to the US!” So, they’d say “Really, it was that beneficial?” When I got accepted I shared it with them and I started to jump and dance and sing so they’d feel what a meaningful and important thing it was. It’s not easy. You will shock them if you just say I will travel.”

Prominent facets of middleclass-ness in Jordan are the othering (Tobin, 2012), misrecognition (Schwedler, 2010) and subsequent symbolic violence. In her interview, Maha had regularly described her family as relatively open-minded and refers to her Turkish background that she credits to being less conservative. In saying that one background is better than another she aspires to set her own class performativity. Yet, she is aware of the norms and her class status that positions her at present and shrewdly plans how to overcome them, find loopholes and rationalise her ambitions to her family. In doing so, there is no direct confrontation in her efforts to navigate her engagement in non-traditional work. Instead, she accentuates the role of a daughter in a joyful childlike manner in order to appeal to her parents in a way that could be comprehensible to them. Rather than present a direct and serious sense of importance about her work, that may “shock” them, she appeals to a daughter role that is familiar for her family.

A related example is Sama, coming from a wealthy West Amman neighbourhood, who set up a fully female-staffed plumbing business. While her husband was encouraging, Sama revealed that her youngest son, as well as others, strongly opposed the idea at first, citing that “*like the rest of society he refused the idea of women as plumbers*”. However, as it became clear that her work was providing a source of income and “*riżk²¹*” for the women of poorer backgrounds she worked with, he accepted the idea. The tactic here is that she highlights her engagement with other women and her role in supporting them, similar to 30% of upper class women interviewed. Faten, a plumber residing in an impoverished, conservative

²¹ Fortune, in the form of sustenance, has a religious aspect to it, as fortune is believed to come from Allah

part of the city, endorsed how much working with Sama had helped her position herself with her family. However, despite being married, her brother still attempted to intervene and control what she should do, “*he tries to stop me from working, and he threatens me. But my husband is fine with me working, so I tell my brother it’s none of his business! I raise my voice at him, not like my sisters who are all afraid of him. I don’t listen to him*”. While both women stated their husbands were supportive²², their conditions differed. For Sama, social acceptance came through the caring side of her work. The idea that she is helping others from poorer communities reaffirms her class position and maintains, in the eyes of society, her elite dignity and thus femininity despite working in plumbing. The family interactions for Faten were very different; the need to work came at a higher expense of tense familial relations. While Faten faced threats of physical abuse from an authoritative elder male in her family, the opposition Sama faced was from the son who does not have authority. Whereas, for the middle class such as Maha, efforts to emulate the upper class through aspiring to travel abroad and highlighting her achievements was a convincing reasoning for her family.

These nuances are less reflected on in the literature that does not capture a comparison in priorities, what can be negotiated or challenged and how. For example, women in middle to upper class are more able to use and maintain the performativity of their class to navigate gender norms. Thus, they approach challenging gender norms indirectly. However, working class who may face more threatening and direct impositions have to

²² Many of the women interviewed explained that their husbands were supportive of them working, stating that as long as duties in the home were maintained they did not mind, as is similar with studies on Jordan (Alian, 2009). Other explained that their husbands were relatively open-minded, while others reiterated that their husbands increasingly saw the need for a second income.

directly confront gender norms as communicated by 30% of WC women interviewed.

Another encouraging approach was that of Iman, a pharmaceutical factory owner, whose own work experience was always in predominant male environments. Despite some of her family members being less accepting about her work, she states “*The women I work with are the important ones. Just yesterday Asma finalised her divorce. They realise they no longer need to put up with abuse. They know I will support as much as I can.*” The awareness she had about what limited other women from working such as transport, presence of males at work, and affairs in the home, shaped the way she created an environment that was comprehensively understanding of women’s needs. The most prominent example is an interest-free loan to buy a car that Iman offered to one of her employees who was struggling to come to work due to unreliable public transport. Iman was aware that public transport options in Jordan are limited and often not a preferred mode of transport for women, thus often a restricting factor to female employment. The only condition Iman set was that the employee was to bring four other colleagues with her to work. In this way, they are able to break barriers and transform their lives. So it is cross-class solidarity; other women supporting each other too that changes familial relations.

However, this still happens within some confines, the enclave that is created is still that we’ve created a niche, safe and comfortable enclave within the manufacturing sector that is seen as ‘dirty, unfeminine’ that is for women only (so it is acceptable for families). The fact that it was a fully female run business was an enabler in giving women access to a job that is deemed masculine. This was an important part of the strategy to

convince family of employment choice for 40% of working class women. So, these decisions are still being made on relational terms with women still accommodating existing social norms. Nevertheless, things that were seen as ‘normal’ change over time. For example, Asma no longer saw it normal to live in intimidation and this initiated action to change.

3.5.2 Manoeuvring stereotypes held by male colleagues

Family represent a prime unit of society that Jordanian women negotiate with, however male colleagues and the wider public too in some cases actually were the more contentious parties. For example, Aisha, who started a photography business in her neighbourhood, a poor, conservative area in Amman, described some backlash from fellow men in the area.

“One day I came to my studio and found that cast stone had been wedged into the keyhole. But thank God, I persisted. I would just fix the problem and then just start over. I am my own boss, I make my own decisions, and I have high self-esteem. We need to break from this thakafet el eib²³. I was in an area that preserves the a’adat o takaled²⁴ in a very difficult way. For a woman to stand in a male society... I think it was just me in those days who was stood in the market as a woman. After that, I opened the arena for other women.”

Aisha describes her social position as seen through the eyes of a dominant male market where she broke a norm by standing among men in a public sphere. The hostile reactions she receives reflect the unwelcoming

²³ Culture of shame, refers to a Jordanian societal belief about what work is respectable of one’s class, position and education

²⁴ Traditional customs

attitudes towards a woman working as an equal, domination over work in the public sphere and maintaining notions of masculinity and femininity. Her reference to thakafet el eib further deepens her reflections; she understands that women in the marketplace are seen as shameful. Nevertheless, she is aware of restricting norms and does not recoil; rather she maintains her stance in public. In her interview she mentioned her husband's (Hussein) supportive role regardless of general societal discourse. During her interview, Hussein was serving drinks and chocolates; this in itself is very unusual for Jordan yet revealed another example of positive domestic relations. Her background (typically, low income and living in a conservative neighbourhood) influences how others (in this case, men in the vicinity where she works) react in a confrontational way towards her breaking norms and how she reacts in a manner that is direct and confronts gender norms. Table 3-4 shows that across classes, this is an uncommon approach with 20% of women interviewed stating they directly confronted male colleagues. However, 30% of women, particularly middle class, felt comfortable in challenging unwarranted complaints at work made about them.

Whereas, below we see a different way of navigating social norm from an upper class woman, Iman:

“Our society actually treasures women. They ... the managers don't consider women as a threat, let's be clear about this. It's kind of good. I go to these ministries, for the electricity, for the water... and they'll be like 'yakhti yakhti'²⁵,

²⁵ Yakhti, means sister in Arabic (it is an informal way of addressing a stranger affectionately)

ya sit²⁶, don't stand in line, you shouldn't be standing, let the woman pass."

-Iman, pharmaceutical factory owner

Iman's understanding of her position under the general social perspective differs than that of Aisha's. While Iman reiterates the discourse that as a woman she is not meant to be working in the public sphere, her stance differs in that she perceives gender as capital (McCall, 1992; Skeggs, 2005; Huppertz and Goodwin, 2013), a strategy similar to 20% middle class and 33% of upper class women. However, the class aspect once again pervades this explanation as she is seen as someone who should be protected and given priority whereas Aisha, seen as someone to be hidden. By remaining within the domain of what society perceives her as, Iman maintains her femininity and class performativity. Yet this perception was not internalised and Iman discussed her awareness of such diminishing gender stereotypes. Thus, this indirect approach to norms, while not challenging, allows her to achieve her individual goal.

"I was working in a print shop with 27 men, no women except me, imagine. it ended up not being just about graphic design, no, it's about understanding their refusal to accept me. Everyday there'd be a complaint to management about me. So I had to break the barrier, I got to know them and spent time learning about the manufacturing part. I ruined 10 shirts of mine. But I know the whole process. And bit by bit they accepted me. Women here often have to do a lot of comprising, waiting for a response, waiting for permission, because of the environment they're in. In my opinion no one should wait, life is too short." Layali, working class, manufacturing sector

²⁶ Ya sit, means lady in Arabic

Layali's approach was upfront, confrontational and hands on. Her discussion reiterates the prior discussion on how class and family intersect to give rise to differences in how norms affect women. The urgency that one class feels is not mirrored by another; the luxury of waiting for a comfortable response is absent, instead the norms have to be broken to meet needs. This strategy was exemplified by 40% of working class women. Moreover, it shows the difference in how various women decide to approach social norms, whether by navigating in enclaves or neglecting the enclaves and navigating their own paths. Aisha and Layali in their direct confrontational approaches make reference to how it can affect other women too in efforts to overcome gender relations.

Iman too, as previously shown was able to use her indirect approach to support other women in addressing gender norms. However, the difference is that direct approaches can lead to wider change in gender relations. This was evidenced through conversation with male colleagues in various interviews²⁷. Interestingly despite accepting their women colleagues in the workplace this acceptance was not necessarily translated into wider acceptances for their own daughters or wives. The notion of a woman working still instils shame as some male colleagues firmly stick to "*no, I look after my wife, whatever she needs I provide, she is comfortable*". This contrasts with Aisha and Layali who enacted more positive changes in gender relations with the men around them.

²⁷ After some interviews, male colleagues were in the vicinity and out of curiosity asked about my research and shared their opinions on some of the vignettes. This happened when I interviewed women who were nurses, hotel workers, and engineers (that exemplified notions of enclaves too). This was not fully researched and presents an area for deeper research.

3.5.3 Performing class and maintaining the cultural gap

Thus far, class has been discussed in relation to family background but not in terms of individual jobs. This section delves deeper into the class performativity that resonates within occupations or sectors.

“They’d say to me ‘you’re really going to work as a driver? How can you let just anyone in the car?’ But I had been searching for 4 months for work, I couldn’t wait longer. At first people didn’t like it. Then they started asking questions and were interested. I explained how the company respected me, the clients respected me.” Dana, taxi driver, working class living in East Amman

In her interview Dana explained that for her, it was not unusual to work. During her time studying in university she held a number of jobs to support her studies (which is unusual even for men to work while studying). However, she describes different reactions from her friends about her job as a taxi driver. The occupation itself is dominated by men, thus the reaction by others is to regulate and keep her ‘safe’ as her femininity is seen as vulnerable in this job. The reference to letting *‘just anyone in the car’* holds an undertone of worry not only about gender mixing but also class mixing. Thus, Dana’s friends outline the performativity of class and also femininity. Furthermore, aside from being male dominated, the occupation itself is not held in high regard among Jordanians and is often seen as a last resort for unemployed men for provide for their families. As such, a taxi driver job is wholly seen as a masculine occupation, typically for the working class. Dana’s discourse exhibits her understanding of these occupational characteristics through her attempt to ease concerns. By reiterating the concept of respect she

uses familiar language to normalise her work and fit it into the paradigm of what is acceptable. Similar to the 60% MC women interviewed that spoke about the acquiescent language they would use to persuade family, 14% WC and 42% MC women also explained that they used familiar terms to redefine their jobs. Interestingly, she conveyed in her interview that at first shunned by some friends for deviating from norms but interested piqued. One phrase that was repeated by Dana and other women I interviewed was how when “*people get used to it, they’ll stop seeing it as strange*”.

However, other women I interviewed living in West Amman such as Yasmine (civil engineer, middle class), Israa (agricultural engineer, upper class) and Nadia (engineer, upper class) provided different insights into how they worked on site and with men of different class, cultural and educational backgrounds. Contrary to a taxi driver occupation, engineering is held in high regard and is perceived to be a prestigious job in Jordan. Although, similar to taxi driver, it is male dominated and is reflective of masculine traits as the work often involves ‘dirty’ worksites, driving a pickup truck, travelling abroad and working with builders²⁸. Yasmine, Nadia, and Israa didn't create enclaves, in their discourse they addressed norms about men and women in the workplace when saying “*but I’m not doing anything wrong, I am here to do my job*”. The focus on the technical side of work enabled them to surpass restrictive notions of social norms. However, the more interesting side is how class background intersects with direct or indirect confrontations.

²⁸ As aforementioned men on worksites often tend to be young Egyptian men working in Jordan and this highlights class and cultural issues

“For men, it’s like ‘you’re an engineer, that’s it’. Now it’s your role [as a woman] to prove not only that you’re technically competent but also that you’re reliable, you’re up for the challenge. Once you pass that... You can pass it in a week, 10 days or 10 years, but once you pass that, they let go.” Yasmine, civil engineer

Nadia reiterates the same concept of having to prove herself. She also recalled how some male colleagues moved out of the department when she was made manager, however she makes the statement that *“it was actually more difficult to work with the on-site builders than the engineers, because they (builders) didn’t accept what I was doing there, they don’t want to listen to orders, I have to raise my voice”*. While she does not comment on her colleagues blatantly not wanting to listen to her as a manager, she criticises the builders who do not listen. Both the builders and colleagues are shown to be unaccepting of women as not only engineers but as managers. Yet there are elements of class distancing and elite dignity present when dealing with gender norms. Nadia feels more able to directly confront builders whereas with engineering colleagues she takes a similar approach to Yasmine, and takes the time to prove herself. Thus, through the cultural gap between women as engineers and men as builders, we see how elite dignity, gained through this occupation, is used to confront gender norms directly. That is, by imposing class status as exemplified by 33% of UC women.

Another example of how such class performativity sets out behaviour is that of Dunya, an upper-middle class lawyer. She explains why she decided to work in an office, rather than in courts, which was not an uncommon pattern among lawyers and engineers. *“I didn’t have to deal with*

all sorts of people from very different backgrounds, because in courts you have to speak to anyone. I didn't want to do that." Through internalised notions on class and femininity at work, Dunya creates an enclave that maintains elite dignity. Thus, while she may be in a non-traditional occupation, she does not challenge gender norms but further entrenches them. The strategy to delegate work that involved cross-class interactions was utilised by a third of upper class women interviewed.

3.6 Conclusion

In Jordan, women working in non-traditional jobs stand out as a distinct contradiction to the traditional prescribed gender norms associated with women. An important contribution of this article is the illustration of the nuances among this small group and their ability to enact change in gender norms in both their individual lives and beyond.

The factors and motives to remain in the labour market are person specific and are subjectable to class backgrounds. Women who decide to break the usual pattern of giving up work after a certain age are influenced by factors such as the financial need to work, betterment of lifestyle and having access via class position to prestigious non-traditional jobs. Being aware of notions of femininity and performativity of class allows women to gain reflexive distance. However, although some reflexive distance is gained, there are still elements of negotiating within boundaries. This gives rise to what I term, 'enclaves' wherein gender norms are preserved through efforts to navigate class and femininity.

Whether intentionally or unintentionally, these enclaves are being subversively used to transform domestic gender relations and as such could have longer term consequences. While existing social norms may

not allow much room to manoeuvre, or allow all women to access these jobs on their own terms, we see how the concept of enclaves allow women to work within existing confines and find cracks to exploit. Using enclaves, indirect strategies to pursue their careers include using familiar discourse to re-rationalise choices, playing into prescribed roles without internalising gendered notions. Whereas direct strategies that confront norms allow women to not only achieve their individual goals but also to inspire change.

There have been transformative changes in the lives of women that present an opportunity to be replicated on a larger scale through showcasing or championing of successes. A commendable venue for change has been exhibited through cross-class solidarity. Other potential policy venues come through valuing women's paid and unpaid work, that is, equal pay, increased paternity leave, and flexible work hours. Yet policies ought to go beyond provisions and focus on truly bettering gender relations and lives, as such, introducing policies that support career transitions after maternity and targeting attitudinal change for both men and women at a young age are integral. Policies should aim to not only keep women in the workforce, but to challenge gender norms.

Chapter 4 The implications of maternal employment on early child development: Household level evidence from Jordan

4.1 Introduction

Women's employment in Jordan's formal labour market is notoriously low. Many factors restrict female labour supply such as structural factors, including high transport costs, largely centralized jobs in the capital and limited job opportunities due to a heavy reliance on remittances, as well as gendered factors such as what is considered to be appropriate employment for women. At the core of these factors, the societal perception is that a woman's role is first and foremost that of a mother, and other roles are secondary (Bayat, 2013). This mantra has been perpetuated through mainstream media whether subtly or directly (Moghadam, 2013). The message reiterates that mothers who take up employment endanger the welfare of their children and families (Moghadam, 2013; Al-Mahadin, 2004; Al-Mahadin; 2017). While other factors that limit women's employment in Jordan have been well studied, the difficulty of making definite claims about the next generation is an issue to be raised.

This chapter explores the association between maternal employment and early child development in Jordan. From a labour market perspective, it is of interest as it has been well established that human capital potential is formed in early years. As such, understanding the contributing factors of early child development, en route to reducing future inequalities, is of importance to policymakers. Further to that, as notably observed, Jordan is a nature-resource scare economy and is dependent on human capital.

In the Jordanian context, the literature on maternal employment focuses on outcomes such as child nutrition (Miles-Doan and Bisharat, 1990; Jansen, 1997; Sharaf and Rashad, 2016) and gender based violence (Lenze and Klasen, 2017). However, economic analyses of gender relations in the household are absent. This chapter aims to unpack this angle and looks to a dimension of future human capital development of children. I further contribute to the growing research on Jordan's labour market by providing a quantitative measure of child wellbeing as it not necessarily clear which direction the relationship between maternal employment and child development goes. Moreover, through utilizing a nationally representative dataset, unlike other studies that are limited to small samples (Al-Hassan and Lansford, 2011; Betawi et al., 2014; Ihmeideh and Oliemat, 2015), the results are more generalizable and can offer useful insights for policymakers.

To study the outcome of employment, a counterfactual-based approach is utilised where maternal employment is considered a treatment. Applying a treatment effects model is advantageous as it allows for selection of treatment to depend on unobservable characteristics, considers the treatment as endogenous and permits the use of observational data. The data used is the 2012 Demographic and Health Survey (DHS) for Jordan. As early child development is a coalescence of numerous dimensions, this article employs the Early Child Development Index (ECDI) that covers four aspects: literacy-numeracy, learning-cognition, physical development and socio-emotive development.

The results reveal interesting policy implications. First, mother's employment raises the development index and school readiness of children of ages 3-4. However, the overall effect of maternal employment on ECD (Early Child Development) changes by age group as child needs vary by age. Indeed, the overall association between maternal employment and ECD for child of the age group 4-5 is negative. Second, the venues to which positive outcomes of maternal employment are achieved rely on a combination of resource-based input and time mothers spend on child development activities. Namely, the results show that maternal employment benefits early child development via additional income to enable attendance of early learning programmes. It is also revealed that mothers in employment spend more time engaging with children on learning activities than do mothers who are not employed. Another considerable result to note is that the women who are likely to be employed are the ones who have conditions that can ensure positive outcomes for children. In other words, women are less likely to enter the labour market if conditions that could engender child development outcomes. This provides further evidence that large-scale child development facilities in Jordan are lacking in availability and quality, which in turn shows that it is both a restriction for female labour supply and early child development. Overall, the potential these results offer is to reveal the channels for which Jordan's human capital dependent economy can continue to progress.

4.2 Literature review

4.2.1 Parental time

A tried and tested approach to assess child wellbeing is to study the time parents spend with their offspring. The time parents spend with offspring

is instrumental for children's wellbeing in a number of ways – for example, parents who spend more time with their children can enhance their knowledge, skills and abilities, provide emotional stability and pay closer attention to social skill building. Looking into the human capital dimension of child wellbeing, parental time spent with children can be seen as an investment in child development. That is, time spent with children is linked to not only positive short-term cognitive development (Grantham-McGregor et al, 1991) but also to long -term outcomes, for example earnings (Heckman et al. 2006; Walker et al, 2011; Gertler et al, 2014) and health (Currie et al. 2008). As such, that women's employment outside of the home can be seen as time away from children and provides an interesting platform to investigate Early Child Development.

The controversy stirred by growing rates of women's employment has raised concerns about reduced time for child care. While the assumption is that maternal employment reduces time allocated for children, time use surveys dispel concerns. In fact, in the United States, it has been revealed that there is very little difference in hours spent with children among mothers in paid work versus stay at home mothers (Bianchi, 2000). This finding is corroborated by other studies, however only in the United States (Zick et al., 2001; Guryan et al., 2008). Moreover, time spent with children does not differ with regards to type of employment i.e. part time or full time (Bowes, 2005). This has been established in studies of a number of industrialised countries such as Australia (Bittman, 1991; Craig, 2002), Germany (Ahnert, Rickert, & Lamb, 2000) and in the United States (Bianchi, 2000). Rather strikingly, studies have revealed that both working mothers and working fathers are actually increasing child care in absolute terms (Gauthier et al, 2004). It is not child care that

suffers a large reduction in time allocation, but time that employed mothers would have allocated towards housework, leisure or other activities (Monna and Gauthier, 2008). Villena-Rodán et al (2017) further confirm that there is little association between maternal employment and time spent with children.

A number of studies also find that it is not quantity of time that matters, but rather how time is allocated and when possible to measure, what the quality the time spent with their children is. For instance, Folbre et al (2005) argue that parents spend either “passive” or “active” time with children. Active time spent with children includes direct activities related to children’s development and learning stimulation such as reading or other learning activities. Studies in the United States, find that even if non-employed mothers spend more time overall with their children, the time spent on active, child-focused activities does not vary significantly among employed and non-employed mothers (Aguiar, Hurst and Karabarbounis, 2013). However, Zick and others (2001) show that employed mothers in the United States are more involved in specific activities such as reading and homework than non-employed mothers. In a detailed study of time use investigating the impact of maternal employment on early child development in Chile, Reynold et al (2017) find that maternal employment has little impact on early child development due to there being no association between parental time & maternal employment. While the quality of attentive parental time is difficult to measure, closely inspecting the type of parental interactions and specific activities that prompt better outcomes for child’s cognitive development are possible. Engle et al (2007) review the impact of selected programmes in developing countries on early cognitive development and

find that the need to enhance parenting skills is increasingly important. In Bolivia, successful programmes were the result of a combination of literacy programmes for parents as well as information sharing on child health and development. In Turkey, programmes that trained on skill building through playtime contributed towards positive short and long-term effects on cognitive development.

As such, parenting practices and skills need to be developed for quality parental time. Consequently, background factors such as wealth and parental education are important to consider (Floro and King, 2016). Moreover, given that on average employed mothers are not spending less child-focused time, there exists variation among the characteristics and abilities of employed mothers to spend quality time with children. For example, well-educated, employed mothers in the United States and Australia are more able to allocate quality time to their children (Sandberg and Hofferth 2001; Craig 2006). Other multi-country studies, ranging from Chile, South Africa, to Germany and France, show that it is not only educated employed mothers that are able to allocate quality time to children, but that high income households substantially spent more “active” time with children (Guryan, Hurst and Kearney, 2008).

4.2.2 Informal care

Childcare typically does not happen in a nuclear family structure. Some emblematic characteristics of family structures, particularly in developing countries, are large families, extended family living in the same residence and sharing caring responsibilities or elders of extended family requiring care themselves (Dinsman et al., 2017). All in all, such family structures have different implications for how time allocated towards childcare is

studied. For example, in Indian multigenerational households can increase mother's household duties and consequently divert time away from childcare (Srivastava and de Guzman, 2017). At the same time, childcare is not only provided by parents. In the United States, Grandparents, extended relatives and even older siblings offer a form of informal care when parental time is limited, especially if they live in the same residence (Vandell et al, 2004).

While free childcare offered by relatives or neighbours appears to be a practical solution, the quality of care if delegated suffers (Glick, 2000). Large family structures tend to draw in elder siblings, often daughters who are still children themselves, to participate in caregiving. Particularly in the presence of many young children, eldest daughters are expected to substitute the parental role (Biannchi, 2000). Naturally, quality-wise care by siblings may not effectively contribute to cognitive or socio-emotive development. For example, in Rural China, the simple absence of parents has been shown to reduce ECD (Wu and Zhang, 2017). Other studies show that, besides the significance of parental care, there is some distinction to be made among the benefit of kin and non-kin. For example, continual time in the care of grandparents has been shown to have positive outcomes for child wellbeing across various African countries (Mkhize 2006; Parker and Short 2009; Townsend et al., 2002). On the other hand, non-kin while featuring continuously for some families in positive light, do not play a significant role in child wellbeing as shown for South Africa (Madhavan and Gross, 2014).

Other forms of informal childcare may also refer to community based or unregistered care centres (Ceglowski and Bacigalupa, 2002). Often, it may

be that lower income and migrant households revert to this form of childcare, as it is a resource-based decision as is the case in California (Hirshberg et al., 2005). The impact of informal care on early child development varies among countries, and is often compared to formal child care. Whereas in the United States, it is found that informal childcare has detrimental effects on test scores (Bernal and Keane, 2011). In Britain, it is found that this type of informal care was not harmful even if less effective than formal care (Côté et al, 2013). Nevertheless, cross-country European studies concur that formal child care is important in making a difference to child welfare, particularly for less educated mothers (Del Boca, 2015). Here, distinction is made between low educated and low-income households, with the former benefiting more from formal child care (Côté et al, 2013).

4.2.3 Formal care

It is well accepted that formal childcare is generally of better quality than informal child care due to its skilled and structured nature that enables positive ECD outcomes (Gregg et al., 2005; Sylva et al., 2011). A number of studies show that investments in formal child care secure strong cognitive skill development that is long lasting beyond childhood, particularly for immigrant families in the United States (Votruba-Drzal et al. 2013; Weiland and Yoshikawa 2013). Moreover, the effects of early childhood development are cumulative and as such, investments in formal care hold much significance (Cunha and Heckman 2007). Children enrolled in formal care do well not only in the realm of language skills, but particularly excel in numerical and non-verbal reasoning abilities (Del Boca et al, 2018). Additionally, formal care provides a necessary platform for children to learn to interact with non-family

members as well as other children as exemplified in European and American studies (Howes, 2011). In certain homes this is especially significant where formal child care can act as a buffer to bring children away from chaotic or unstable home environments that are detrimental to cognitive and social development (Côté et al., 2008; Berry et al., 2016).

While formal care offers a solution for parents' long working hours, and appears to appeal to positive indicators of child development, recent research addresses child wellbeing and the time spent in formal care. Of particular interest is care outside of daytime hours. As opposed to childcare in usual day time hours, children enrolled in formal care in the evenings tend to exhibit negative social behaviours in addition to slower intellectual and emotive development such as found in Japan and America (Anme and Segal, 2003; Boyd-Swan 2019). Delayed socio-emotive and cognitive development are more strongly associated with children under the age of five, particularly girls, and children who are enrolled in more than one care arrangement in the United States and Australia (Morrissey, 2009; Claessens and Chen, 2013). However, in a comprehensive critical review, Melhuish and others (2015) find that while formal care may carry the risk of negative outcomes, children are also exposed to enriched learning opportunities with enduring benefits.

Yet the use of formal care can be resource intensive. There may also be stigma attached to its use, misconceptions or social norms that discourage mothers from sending their children away from kin-based support. For example, children of immigrants in the United States are less likely to use formal care. While formal care is considered to have high quality learning outcomes, mothers were not likely to perceive it as

necessary preparation for later education such as elementary school (Shuey and Leventhal, 2018). Nevertheless, children from disadvantaged backgrounds may well be less likely to have access to good quality formal care due to inadequate funding policies. Pavolini and Lanker (2018) find that across European countries it is indeed structural constraints that limit low-income families from using formal child care, rather than norms or misconceptions about its use.

There is growing evidence that formal care substantially supports early child development, however differences in access to quality care can result in longer term inequalities among poor and rich households (Votruba-Drzal et al, 2015). As such, the importance of both cognitive and social development in reducing later life inequality is an essential turning point, and studies show that differences in child care experiences among racial and socioeconomic groups can affect preparation for later education (Magnuson and Waldfogel, 2005). However, programme evaluations stress the necessity of providing quality care in interventions to reduce skill gaps among low and high-income households (Britto et al., 2017).

4.2.4 Other resources

Early learning childhood experiences are influenced too by the availability and sources of learning materials. Specifically, resources such as books and toys are necessary for intellectual stimulation and development (Bradley et al., 2001; Bradley and Putnick, 2012). However, parents from low-income households are limited in the resources they are able to offer to nurture and maintain ECD (Maggi et al., 2010). As such inequalities in human capital among low and high-income households persist.

Interestingly, developed countries that rank highly in the Human Capital Index demonstrate a persistent association between socioeconomic status and level of exposure to learning materials (Lleras, 2008). A similar trend can be found for developing countries as well (Bradley and Putnick, 2012).

4.2.5 Household Bargaining, intra-household resource allocation and women's autonomy

Childcare, expenditure on resources for cognitive and socio-emotive stimulation and how time for children is allocated are common household decisions that often incur much bargaining. However, bargaining power among household members may not be equally split and decision-making is often in the hands of those who control income (Haddad, et al., 1997; Elder and Rudolph, 2003). Gender plays a significant role, where the distribution of power, resources and hence bargaining power almost always favours men (Quisumbing, 2003). Moreover, the household member who holds more bargaining power is able to exert their own preferences for how resources are expended. As such child welfare outcomes depend on individual preferences (Frankenberg and Thomas, 2003). Typically, across countries it has been found that women are more likely than men to allocate resources to children's education (Guyer, 1980; Tripp, 1982; Pahl, 1983; Kennedy, 1994). However, recent research on Malawi argues that while mothers are more likely to invest income in basic needs for children, fathers are more likely to invest in child long term outcomes such as education (Dimova and Gang, 2017).

Despite studies that show income in the hands of women tends to be allocated towards children's education and general welfare, the conditions and mechanisms that determine the bargaining power of women differ according to the cultural context (Quisumbing, 2003). For example, Quisumbing and Maluccio (2003) find that across developing countries with very different cultural, social and economic conditions, the dimensions of bargaining power differ. In Bangladesh, women's bargaining power is increased by assets at marriage, whereas in South Africa, the opposite is true. Thus, bargaining power can be determined by a number of factors not only economic resources, but also laws and social capital (Cox and Fafchamps, 2007; Ashraf et al, 2010; Mabsout and Van Staveren, 2010).

An important part of strengthening decision making power is tied to employment, as paid employment contributes to increasing an individual's resources (Agarwal, 1994, Kabeer, 1999, Quisumbing, 2003). Typically, income and assets can enable women to reduce the burden of unpaid work and domestic violence (MacPhail & Dong, 2007; Aizer, 2007). However, paradoxically, paid employment may weaken bargaining position, that of which can be explained by unequal gender norms on a societal level (Mabsout and Staveren, 2010). In Sub-Saharan Africa, as a woman's ability to contribute income to household expenditure grows, men contribute less to household expenditures and more on personal consumption (Staveren and Odebode, 2007). Other examples, show that when micro-fund loans given to women to establish businesses, husbands take control of the spending and leave women with the responsibility of settling the loan (Goetz & Gupta, 1996).

Nonetheless, women's low autonomy in decision making directly contributes to child underdevelopment (Smith et al., 2000; Arulampalam et al, 2016). Autonomy is linked to child welfare in a number of ways, from being able to go to hospital when needed for oneself and for children (Luke and Munshi, 2011), to making decisions alone about child wellbeing and education. (Carlson et al, 2014). Heiland and others (2017) find that in America, fathers and other kin are unlikely to substitute mother's time with children. Aforementioned, formal child care may provide higher quality outcomes for child development yet it can be a costly and inaccessible option. As such, with reduced maternal time with children as a result of employment, the ability to bargain with a spouse or other household members for contributions in child care becomes imperative.

4.3 Method

Working mothers are not a random sample. Mothers who chose to take up employment may have certain enabling characteristics or conditions that in turn not only support employment but also influence Early Child Development outcomes. As such, there is a need to account for non-random selection into employment in order to disentangle the effect of maternal employment on ECD. Thus, an appropriate empirical strategy for this study is the treatment effects model. To begin with I analyse the effect of maternal employment on child welfare, the outcome measure of which is the Early Child Development Index (ECDI). In doing so, I begin with discerning the differences in child welfare outcomes between two groups which are mothers in paid employment and mothers not in paid employment.

This can be estimated through the following set of equations:

$$CW = X_{CW}\beta_{CW} + \delta_{CW}M + \varepsilon_{CW} \quad (1)$$

$$M^* = Z_M\theta_M + \mu_M \quad (2)$$

In equation (1) CW is the child welfare measure for the i th household, X_{CW} is a set of explanatory variables, β_{CW} is the associated vector of coefficients, and δ_{CW} captures the effect of maternal employment on child welfare. The residual ε_{CW} is assumed to follow a normal distribution. In equation (1) maternal employment is treated as exogenous. However, as aforementioned and as well-addressed in economic literature, women's employment is unlikely to be randomly allocated, that is $E(\varepsilon_{CW} | M) \neq 0$. Whether a woman works is likely to be subject to selectivity. For example, women living in conservative areas face more restrictive norms that prevent working outside the home in paid employment, whereas women from comparatively liberal backgrounds face less restrictive norms and are able to access paid employment outside the home (Arat, 2010). This is also reflected in employment opportunities, in areas where employment is limited women are less likely to work (Kushi and McManus, 2018). Therefore, if women from areas with higher or lower opportunities to work are self-selected into working, then equation (1) will be bias. Therefore, in correcting for selectivity equation (1) and (2) are not estimated independently. Where M^* is a latent variable measuring the likelihood of a mother working, Z_M is a vector of explanatory variables, θ_M is the associated estimates and μ_M is an error term.

The latent variable M^* is unobserved, but $M=1$ is observed when $M^* > 0$ and $M=0$ otherwise. Assuming that μ_M follows a normal distribution where $\mu_M \sim N(0, 1)$, the corresponding specification is a probit model.

Therefore, $\Pr(M = 1) = \Phi(Z_M \theta_M)$ and $\Pr(M = 0) = \Phi(-Z_M \theta_M)$, where $\Phi(\cdot)$ is the normal distribution function.

Under the assumption that $(\varepsilon_{CW}, \mu_M)$ follow a joint normal distribution of the form $(\varepsilon_{CW}, \mu_M) \sim N(0, 0, \sigma^2_\varepsilon, 1, \rho_{CWM\sigma\varepsilon})$, where $\rho_{CWM\sigma\varepsilon}$ is the coefficient of correlation, we can then estimate a treatment effect model of child welfare, which accounts for the possibility of non-random selection of households into the maternal employment treatment (Barnow et al., 1981). Specifically:

$$E(CW | M = 1) = X_{CW}\beta_{CW} + \delta_{CW} + \rho_{CWM\sigma\varepsilon} \left[\frac{\varphi(Z_M \theta_M)}{\Phi(Z_M \theta_M)} \right] \quad (3)$$

$$E(CW | M = 0) = X_{CW}\beta_{CW} + \delta_{CW} + \rho_{CWM\sigma\varepsilon} \left[\frac{-\varphi(Z_M \theta_M)}{1 - \Phi(Z_M \theta_M)} \right] \quad (4)$$

Where $\varphi(\cdot)$ is the normal density function. Hence, the difference in child nutrition between households with a mother in paid employment and households without a mother in paid employment is:

$$E(CW | M = 1) - E(CW | M = 0) = \delta_{CW} + \rho_{CWM\sigma\varepsilon} \left[\frac{\varphi(Z_M \theta_M)}{(1 - \Phi(Z_M \theta_M))\Phi(Z_M \theta_M)} \right] \quad (5)$$

Equation (5) is estimated using a full maximum likelihood method and obtain unbiased estimates of β_{CW} , δ_{CW} and θ_M , which is the *etregress* model specification. Note that the term in the brackets is the Mills ratio, which depends on the value of the transfer variable (see Eqs. (3) and (4)). A positive value of the selectivity term provides evidence in favour of underestimated levels of child welfare on account of selection of women living in areas with access to employment opportunities, and vice versa

in the case of negative selectivity. The correct impact of maternal employment on child welfare has to be computed net of the selectivity bias.

The *etregress* model is flexible in terms of identification, given that the normality in the probit model serves as an exclusion condition. As a result, the X and Z variables in the treatment and outcome equations can be the same variables, if it is suspected that covariates of selection can also be covariates of the outcome regression. Similarly, X and Z can be different variables if it is suspected that covariates of selection are different from covariates of the outcome regression (Guo and Fraser, 2014, p. 102.). A specific test to determine a good identifier does not exist, however the significance of the identifier in the model can be seen. A number of different identifiers and model specifications were experimented with, the overall main results of maternal employment effect on ECD did not change. However, the chosen identifier (cluster average of female employment) yielded the strongest significance.

Treatment effect models are based on counterfactual frameworks that essentially ask the question of what would be the outcome if the treatment were not given (Morgan and Winship, 2015). Moreover, treatment effect models are able to offer practical solutions for issues in programme evaluations (Guo and Fraser, 2014). Commonly used in the programme evaluation literature, treatment effect models vary from evaluating employment-training programmes (Chun and Watanabe, 2012), health intervention outcomes (Jeon and Kwan, 2013) to policy interventions (Dimova and Gang, 2017).

As such, treatment can be in the form of a programme, intervention or policy change. While these examples are forms of randomized controlled trials, similar evaluation can be applied to observational data (Wooldridge, 2002; Rosenbaum, 2010). Observational data, as an alternative to experimental data, is appropriate in cases when it is unethical or inapplicable to design field experiments (Wooldridge, 2002; Rosenbaum, 2010). Another justifiable reason for the use of observational data in a treatment effects model is that the randomisation of a treatment may not be possible. In other words, where a self-selection of individual into an already existing program or condition take place (Guo and Fraser, 2014). Additionally, the participants who self-select into a programme may have different characteristics that are unobservable. In this instance, a treatment effects model allows the treatment to depend on selection on unobservables (Wooldridge, 2002).

Another main feature of treatment effects model, that is an advantage over a normal OLS model, is the ability to consider treatment as endogenous. The specific model utilised in this article is a linear regression with endogenous treatment effects. Using STATA, the command is known as *etregress*. Essentially, the decision of an individual to participate is first estimated followed by the estimation of the treatment effect. While it may appear similar to the Heckman selection method there are two main differences. The first is that in the Heckman estimation model, there are missing observations in the outcome, whereas in treatment effects all observations are present for the outcome to be studied. Secondly, in the treatment effects model, a dummy variable indicating treatment is directly entered into the outcome equation.

The choice of a treatment can be interpreted very broadly (Wooldridge, 2002). In this article, the treatment is whether a mother participates in paid employment. As the treatment (mother in paid employment) and the outcome (early child development) are not completely independent of each other, the application of the *etregress* model becomes even more appropriate due to its ability to estimate the average treatment effect on the treated in the case when the outcome may not be conditionally independent of the treatment (STATA manual). This is achieved via the normality condition imposed in the first stage that is estimated via a probit model.

4.4. Empirical specification

Recall that the effect of maternal employment on ECD is estimated through equations (1) and (2). Where equation (1) estimates the outcome of maternal employment on child welfare, equation (2) estimates the latent probability of maternal employment. This section will discuss the coefficients of equations (1) and (2).

4.4.1 ECD determinants

The outcome variable (of equation 1, page 139) in this study is Early Child Development (ECD) as measured by the Early Child Development Index (ECDI), developed by UNICEF. The measure includes cognitive and socio-emotional development and specifically has four dimensions: literacy-numeracy, learning-cognition, physical development, and socio-emotional development. The items of the ECDI are outlined in detail in Table 4-4 (Section 4.8, Appendix, p.169). The ECDI with relevance to school readiness is a particularly useful measure as it is a good future human capital indicator. In line with the literature, the index is developed

using confirmatory factor analysis (McCoy et al, 2016). The age group for the data collected on early child development are ages 3-5.

The literature follows a general framework to determine early child development outcomes that include four main components (a) time input (b) noontime input (c) goods and (d) controls for skill endowment. The additional conceptual dimension this chapter adds is a measure of mother's autonomy, as previously discussed in the literature review mother's bargaining position is a necessary feature for depicting early child development.

Maternal time input is not directly observed, however as commonly dealt with in the literature on early child development, maternal employment is used in its place (Parcel and Menaghan, 1994; Todd and Wolpin, 2003; Bernal, 2008). In addition to maternal employment as a proxy for the potential reduction in quantity of time that mothers spend with their children, measures of quality of time are also included. This is measured through activities such as: reading books to children, playing with children, counting with children and telling stories with children. These variables account for whether any household member above 15 years of age has participated in stimulating activities with a child in the past three days preceding the survey. Such activities enable both cognitive development as well as providing a sense of emotional security that embeds positive social behaviours in children, as such are appropriate measures for quality of time (Bianci, 2000). Each category of these variables makes a specific point to ask who in the household spent time with the child. This enables an examination of whether other household

members take up caring responsibilities when a mother works, and whether it reflects positively on ECD.

Discussed in the literature review, measures of non-time inputs include formal and informal childcare. These are reflected in the two dummy variables. The first variable is whether a child has attended an early learning programme. This variable specifically does not include forms or babysitting, rather, the focus is structured programmes that include a learning component. While, the learning component is accounted for, it is not possible with the DHS dataset to control for quality of programmes child is enrolled. The second variable is the presence of household members, as a proxy for informal childcare (Lokshin, 2004; Del Bocca, 2015). As discussed in the literature review, family structures are not necessarily nuclear and presence of extended relatives can be a source of informal care for children.

There is the issue that there is parental input of whether to enrol offspring in early learning centres or how much time to spend with a child is a decision in itself. For example, Becker and Tomes (1976) theorize that parents invest time and/or resources in children according to their perceived cognitive ability. There are several options in the ECD literature that attempt to resolve this. One is to use lag values in an achievement measure in a fixed effects model to account for unobserved histories of decision-making by parents (Todd and Wolpin, 2003). However, the issue of parents' self-selecting children into programmes or spending extra time with them persists. Moreover, fixed effects models may need to rely on very strong assumptions (Bernal, 2008). A second option is the use of an IV estimator, for example data on geographic

proximity of early learning centres or costs of enrolment (Engle et al., 2007). However, data for Jordan on these measures is not readily available. Other studies use household wealth or mother's higher education (Habiviv and Coyle, 2014), however in this study such variables are closely related to the main variable: maternal employment. Moreover, often it is found that IV estimators are too weak (Bernal and Keane, 2010).

Nevertheless, given the severe data limitations, the options discussed above are not possible. This is generally the case for econometric analysis of developing countries (Behrman and Sergio, 2013). As such, the assumptions for the model specification, despite being rather stringent, must be clarified and considered in interpreting results. Specifically, the assumption made is that all parents will make similar decisions for early child development regardless of child ability. Studies on developing countries also using DHS datasets apply a similar approach and acknowledge the limitations, for example a study on early childhood care and school readiness in Zambia (McCoy et al., 2017). As such, this is not a causal study.

Literature often also uses natural experiments as instrumental variables (Buckles, 2018) such as exogenous policy changes that affect the decision to enrol children in early learning programmes (Duflo, 2000; Currie, 2009). However, in the case of Jordan education reform for children under 5 (known as the ERfKE II program) has been a slow roll out plan and has not been carried out uniformly across all governorates (Al-Hassan, 2018), unlike other examples where education reform was phased out in governorates and thus used as an IV (Schlosser, 2006).

Another reason that education reform in Jordan is not an applicable IV is that enrolment in early learning programmes was not made mandatory and participation was only up to 40% at the end of the reform period (Al-Hassan and Lansford, 2009).

Thirdly, to account for goods that are considered learning resources there are two sets of variables. First, the type of toys available for a child, ranging from shop bought to homemade toys to objects found in or around the household. Second, the number of children's books present in the house. Aforementioned, the availability of learning resources in the home is necessary for intellectual stimulation and development (Bradley et al., 2001; Bradley and Putnick, 2012).

The empirical specification has an extensive set of controls for potential skill endowment of a child. Parental and household characteristics are essential determinants of early childhood development in that they are either be protective or risk factors for determining child wellbeing. Starting with, maternal age, much research on various aspects of early child development reveal the significant effects young mothers' inexperience has on children from breastfeeding (Kramer et al., 2008) to knowledge about care practices (Falster et al., 2018). All of which, link to cognitive and behavioural development. As a further measure, the specification includes mother's age at first cohabitation. Aforementioned in the literature review, maternal education too plays a significant role in child outcomes. In this study, paternal education as well as paternal age is also included in the specification as it is relevant to involvement with children (Sethna et al., 2017). Finally, birth weight is commonly used in the literature as an indication for child potential skill endowment as

determined at birth (Bernal, 2008). While the evidence shows that environmental factors influence children's development trajectories far more than birthweight would, it remains necessary to begin with a baseline for comparison (McCormick et al, 2006; Fernald et al, 2017).

In terms of household characteristics, number of children under five is included. It is hypothesized that a higher number of young children distracts maternal attention and affects development indicators (Huston and Rosenkrantz Aronson, 2005). Gender of child is also controlled for. In some countries, gender preference to invest in a child may be prevalent even at an early age (Glick, 2000), however, as the nature of marriage markets are changing, educating girls is a changing norm (Blunch and Das, 2015) thus there may be little difference in parental attention given to girls and boys. As is the case in the DHS data for Jordan, it can be seen that girls aged 3-5 do slightly in cognitive outcomes than boys aged 3-5.

Finally, as a more explicit link between women's decision making in the household and ECD, an autonomy index is constructed using principle components analysis. The index includes questions on who takes the decision on women's healthcare, large household purchases and visits to family or relatives. The answers to the questions are threefold: Husband or others, joint decision with husband and respondent takes decision individually. The use of a composite score is appropriate due to the multi-dimensional nature of autonomy. Specifically, an index solves the issue of multicollinearity between dimensions in addition to acknowledging the complexity of autonomy in that numerous dimensions represent a singular underlying concept (Agarwala and Lynch, 2006). In the literature, there are a number of terminologies that refer to autonomy and are used

interchangeably, such as empowerment or women's status. In this study, autonomy refers to women's agency at the household level (Carlson et al., 2014). Broader terms such as empowerment or women's status go beyond the household level and attempt to control for women's agency at community or national levels (Smith et al., 2003; Carlson et al., 2014). Additionally, in order to not confuse autonomy measures with education or social factors, women's attitudes to the legitimacy of beating are not included in the index (Agarwala & Lynch 2006). Finally, an interaction term for paid employment and the autonomy index is also included to account for the relationship between autonomy and paid employment.

4.4.2 Maternal employment determinants

In order to analyse the effect of maternal employment on early child development, the latent equation (equation 2, page 139) or treatment for determinants of employment needs to be estimated first. Employment specifically refers to paid employment outside the household, and does not include unpaid workers or self-employed. It is well recognised in women's employment studies that various forms of employment can incur very different outcomes. For example, the implications of informal employment, even if paid, that occur in the household differ than employment outside of the home (Brauner-Otto et al., 2019). That is, mothers who work from home may be able to spend more time with children in addition to working. As the focus of this study aims to test socio-cultural concerns, norms and assumptions about mothers working in the public sphere the variable "employment" is restricted to paid work outside the home. Moreover, the dataset did not specifically collect data on home-based workers. A dummy variable to indicate whether a woman

is currently employed takes the value of one, and equals zero if a woman is not employed.

The rest of the empirical specification of equation (2) contains similar variables to equation (1). As described in the methods section, the *etregress* model allows for similar variables to be in outcome and treatment equations. In this case, the repeated variables are parental (i.e. wife and husband) and household characteristics. For example, household composition factors that influence women's employment reflects the traditional role of mothers as the primary caregivers. As such, number of household members and number of children under five is included in the treatment equation. Parental characteristics, including age and education, too are relevant in determining women's employment. In Jordan, it is often young women who enter and remain in the labour market (Assaad, 2014). Moreover, a partner's educational level can be influential in encouraging women's employment, thus father's educational level is included (Abadeer, 2015). Birthweight is also included as it is relevant to a mother's decision making as to whether enter employment or not (Glick, 2000).

However, to better account for women's working status the exclusion restriction used is the cluster average of female employment. Average female employment rate by governorate has a strong impact on individual women's employment but is not related to the outcome variable, early child development (Lenze and Klassen, 2017).

4.5 Data description and statistics

To estimate the determinants of women's work and the impact on child welfare the data used is the Jordanian Demographic Health Survey (DHS) of 2012. The survey includes information on women's health status, their offspring, and household characteristics. A total number of 6,489 households were surveyed, after data cleaning the number of households that remain is 4,044. The surveys are designed to collect data on married women of ages between 15 and 49. The overall sample is nationally representative and distinguishes between governorates, the three main regions (Central, North and South), and Badia areas and refugee camp areas. The 2012 DHS sampling is based on the 2004 Jordan Population and Housing Census sampling frame. While families in remote areas are included in the survey, specific data is not collected on ethnicity²⁹.

Table 4-1 presents the descriptive statistics for the main variables of interest and compares the full sample to households with and without employed mothers. The main variable of interest, the early child development index, is 0.98 for the full sample. It can be seen that the index is higher in households with employed mothers (1.01) than households without employed mothers (0.96). However, the standard deviation is slightly greater in households with employed mothers.

²⁹ The major ethnic group which account for 98% of the population in Jordan are Arabs, 1% is Circassian and 1% is Armenian.

Table 4-1
Descriptive statistics for parental and household characteristics

	Households without employed mothers	Households with employed mothers	Whole sample
Early Child Development Index	0.96 (0.30)	1.01 (0.33)	0.98 (0.31)
<i>Parental Characteristics</i>			
Mother's age (years)	31.97 (6.21)	33.96 (5.18)	32.28 (6.10)
Mother's education (years)	9 (3.79)	13 (3.51)	10 (3.94)
No education- Mother (<i>percentages</i>)	0.04 (0.20)	0.00 (0.07)	0.03 (0.18)
Primary education- Mother	0.09 (0.28)	0.01 (0.11)	0.08 (0.26)
Secondary education- Mother	0.66 (0.47)	0.15 (0.35)	0.58 (0.49)
Higher education- Mother	0.21 (0.41)	0.84 (0.37)	0.31 (0.46)
Father's age (years)	37.60 (7.33)	38.07 (6.03)	37.67 (7.14)
Father's education (years)	10.03 (3.38)	12.46 (4.55)	10.42 (3.69)
No education- Father (<i>percentages</i>)	0.02 (0.14)	0.00 (0.06)	0.02 (0.13)
Primary education- Father	0.14 (0.34)	0.04 (0.20)	0.12 (0.33)
Secondary education- Father	0.68 (0.46)	0.53 (0.50)	0.66 (0.47)
Higher education- Father	0.16 (0.36)	0.43 (0.50)	0.20 (0.40)
<i>Household Characteristics/Family composition</i>			
Child has a twin	0.03 (0.18)	0.03 (0.17)	0.03 (0.18)
Gender of child	0.49 (0.50)	0.49 (0.50)	0.49 (0.50)
Number of household members	6 (2.35)	6 (1.71)	6 (2.28)
Number of children under 5	2 (0.95)	2 (0.80)	2 (0.93)
<i>Learning resources available for child(ren)</i>			
Child attended early learning program	0.16 (0.39)	0.49 (0.50)	0.21 (0.43)
Child plays with homemade toys	0.07 (0.26)	0.06 (0.24)	0.07 (0.26)
Child plays with shop bought toys	0.88 (0.32)	0.94 (0.48)	0.89 (0.35)
Number of children's books	1 (2.31)	2 (2.84)	1 (2.42)
<i>N</i>	<i>3,403</i>	<i>641</i>	<i>4,044</i>

Source: DHS Jordan 2012. Standard deviation in brackets

On average, it can be seen from table 4-1 that there is a stark difference in maternal education between employed (13 years) and unemployed mothers (9 years). The majority of mothers outside of employment retain

secondary education (66%), whereas a much higher majority of employed mothers have attained higher education (84%). The difference is less apparent among fathers' education, however in households with mothers in employment fathers tend to have higher education (43% completed higher education). Overall however, a larger proportion of fathers spend a higher number of years in education in comparison to mothers.

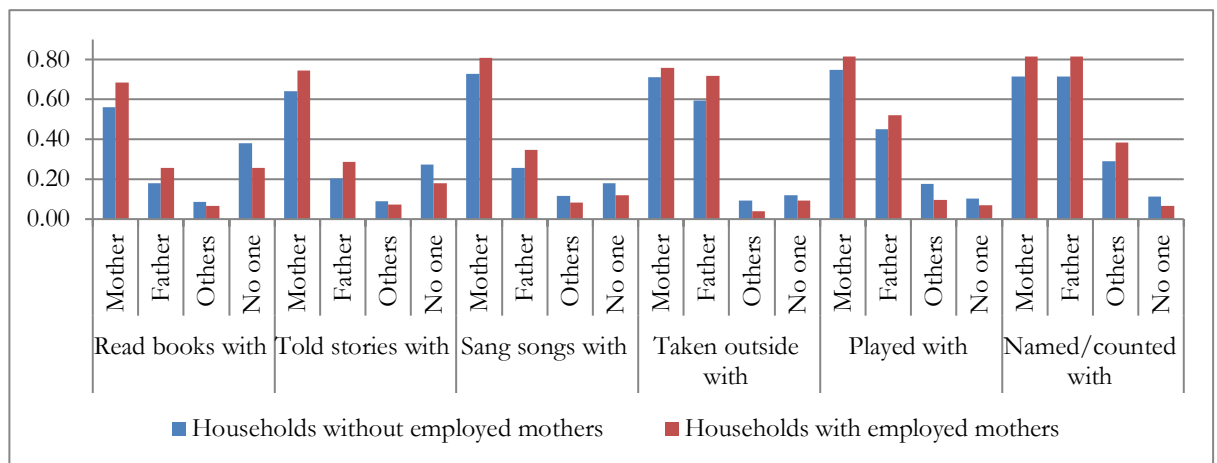
In terms of family composition, number of household members is slightly less in households with an employed mother. Otherwise there is little difference between households with and without maternal employment. On the other hand, learning resources available for children do differ among households. Most notable is the enrolment of children in early learning programmes (again, recall that early learning programmes do not incorporate a babysitting or caregiving component). 16% of children in households without an employed mother are enrolled in learning programmes, whereas half of children in households with employed mothers are enrolled in learning programmes. The availability of books too differs, with children in households with employed mothers having on average two books compared to one book in households without employed mothers.

Upon closer inspection, figure 4-1 shows that mothers regardless of employment are mainly the ones responsible for engaging children in learning activities. Moreover, employed mothers on average spend to some extent more active learning time with children than non-employed mothers. For example, in the reading books category, 70% of employed mothers read a book with their child compared to 55% of not employed mothers. Although father's engagement with children across most

activities is less than mothers by far, it can be seen that in households with employed mothers, fathers engage more with their children. In the reading books with category, 25% of fathers in households with employed mothers read with their child compared to 18% of fathers in households without working mothers read to their child.

Figure 4-1

Child engagement in learning activities in the past three days with household members



Source: DHS 2012

Across all activities, engagement with other household members is low. Contrary to what may be expected, other household members do not substitute for parental time spent with children. Rather, in households without an employed mother, other household members are very slightly more likely to interact with children in learning activities. However, across all activities, in households without working mothers children are somewhat more at risk to have no one to engage with them in any activities. The most notable difference is in the read books category, with 40% of children in households without working mothers having no one to read to them. Whereas, households with working mothers, the figure is lower with 25% of children not having read a book with a caregiver.

Table 4-2 below is a tabulation presenting an overview of the statistics for parental and household characteristics as it relates to four dimensions of the ECD index: literacy-numeracy, physical, socio-emotive and learning. The bottom row presents the total percentages for each dimension of the ECD index according to households with employed or not employed mothers. Children have scored higher in the learning dimension (82% and 83%) and lowest in the literacy-numeracy dimension (17% and 20%). Generally, the percentage of children who are developmentally on track is very slightly higher in households with employed mothers. The largest difference being in the literacy-numeracy index where 20% of children with employed mothers compared to 17% of children with not employed mothers. As the literacy-numeracy domain is the weakest area, discussion will be focused on this domain.

Table 4-2 presents the percentages of children developmentally on track for the categories in the rows. Distinction is made across employed and unemployed mothers, as well as parents' education and household structure. We observe that in the case of mothers with a basic level of education who are not employed, 8% of children are developmentally on track in the literacy-numeracy domain. By contrast mothers with higher education who are not employed, 16% of children in this category are developmentally on track in the literacy-numeracy domain. As discussed in the literature, mothers with higher education are more able to ensure improved ECD outcomes (Sandberg and Hofferth 2001; Craig 2006). As alluded to in table 4-1 and figure 4-1, children of employed mothers spend more time engaging in learning activities with both parents as well as being enrolled in early learning programmes.

Table 4-2

Percentage of children who are developmentally on track for indicated early childhood development dimensions, by select parental and household characteristics

	Literacy-Numeracy		Physical		Social-Emotive		Learning	
	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed
<i>Maternal Education</i>								
Basic	0.08	0.00	0.99	0.67	0.71	1.00	0.88	1.00
Primary	0.08	0.25	0.99	1.00	0.70	0.63	0.84	0.50
Secondary	0.12	0.18	0.99	1.00	0.70	0.70	0.90	0.89
Higher	0.16	0.18	0.99	0.98	0.73	0.78	0.93	0.93
<i>Paternal Education</i>								
Basic	0.00	0.00	0.99	0.50	0.63	1.00	0.87	1.00
Primary	0.09	0.04	0.98	1.00	0.66	0.67	0.86	0.81
Secondary	0.12	0.16	0.99	0.99	0.71	0.74	0.91	0.91
Higher	0.01	0.23	0.99	0.98	0.78	0.81	0.92	0.94
<i>Number of Household Members</i>								
Less than 6	0.14	0.20	0.99	0.99	0.71	0.76	0.91	0.91
Greater than 6	0.07	0.16	0.67	0.98	0.49	0.77	0.60	0.92
<i>Number of children under five</i>								
less than 2	0.14	0.23	1.00	0.99	0.75	0.79	0.91	0.94
Greater than 2	0.12	0.16	0.99	0.98	0.69	0.75	0.90	0.91
<i>Total</i>	0.17	0.20	0.71	0.69	0.66	0.69	0.82	0.83

Moreover, it does not appear that higher numbers of household members provide sufficient support for children in this dimension. As can be seen, the percentage of children who are developmentally on track drops from 20% to 16% when the number of household members is greater than six (in households with employed mothers). Similarly, the percentage drops from 14% to 7% in households without employed mothers. Curiously, across all four domains, the development indicators are low for children living in households with greater than six members. The difference is accentuated in households without employed mothers, particularly in the socio-emotive domain where the percentage drops from 71% to 49%.

Aforementioned, this can be indicative of the unpaid care burden that preoccupies mothers, often distracting attention away from the care and needs of children (Srivastava and de Guzman, 2017).

4.6 Empirical analysis

This study sets out to examine the association between maternal employment and early child development. Firstly, women's labour participation is estimated (columns 1b and 2b, table 4-3) followed by the selectivity corrected treatment of maternal employment on early child development (columns 1a and 2a, table 4-3). The model is estimated twice for two age groups of children: 3-4 and 4-5 years to account for the difference in development levels of children at these age groups (Waldfogel et al., 2002; Cunha, Heckman, and Schennach 2010; Heckman 2007).

4.6.1 Determinants of women's employment

The first stage estimates are the results of a probit model of maternal employment (equation (2), page 138) and are presented in columns 1b and 2b in table 4-3. The results indicate that maternal employment has a positive and significant impact on early child employment at the 10% level for age groups 3-4, whereas, the impact is negative and significant at the 1% level for age groups 4-5.

The most influential determinant of employment is the rate of female employment in a community, with a coefficient of 4.55 for ages 3-4, and a coefficient of 3.86 for ages 4-5. This is consistent with the literature that posits the encouraging effect of female employment. It also acts to break

down social norms and stigma around roles assigned to women (Seguino, 2007). In agreement with the literature on women's employment, the education level of mothers and their spouses are strongly associated with employment (Heath and Jayachandran, 2018; Selwaness and Krafft, 2018).

Reflective too of socio-cultural norms, ages of parents influence employment decisions. The age of the mother is consistently positive and significant at the 1% level, suggesting that mothers engage in employment at older ages. The coefficients for mother's age are 0.027 for ages 3-4, and 0.049 for ages 4-5. In line with findings in developing and developed countries, mothers are more likely to work when children have grown (Yoon, 2015; Sa'ar, 2017; Selwaness and Krafft, 2018). This is corroborated by the negative and significant effect of number of household members where larger families discourage women from working as mothers are generally the primary caregivers. The evidence is reflected in the large and negative effect for the coefficient for household members above 60 years of age (-0.156 for children ages 4-5).

Moreover, husband's age negatively affects women's employment, with a coefficient of -0.22 in column 2b. Where husband's age, particularly the age difference between husband and wife, can be indicative of more conservative norms and a tendency to stick to traditional roles (Jansen and Thornton, 2003). Age at marriage is positive, suggesting that too that conservative norms are at play with coefficients of 0.091 and 0.077 for ages 3-4 and ages 4-5 respectively.

Table 4-3
Treatment effect of maternal employment on Early Child Development

	(1a) ECDI (ages 3-4)	(1b) Maternal employment	(2a) ECDI (ages 4-5)	(2b) Maternal employment
Mothers age (years)	-0.006 (0.003) **	0.027 (0.017)	-0.002 (0.005)	0.049 (0.013) ***
Father's age (years)	0.004 (0.0012)**	-0.009 (0.010)	0.001 (0.001)	-0.022 (0.008) **
Mother's age at marriage	0.001 (0.003)	0.091 (0.016)***	0.007 (0.002)***	0.077 (0.012) ***
Mother's education (years)	0.007 (0.006)	0.271(0.034)***	0.003 (0.004)***	0.217 (0.024)***
Father's education (years)	0.004 (0.003)	0.116 (0.017)***	0.008 (0.002)***	0.122 (0.011)***
Gender of child	-0.028 (0.016)*	-0.126 (0.095)	-0.021 (0.012)*	0.137 (0.067)**
Number of household members under age 5	-0.003 (0.010)	0.001 (0.058)	-0.019 (0.008)*	-0.087 (0.046)**
No. of household members age 6-15	-0.001 (0.007)	-0.021 (0.044)	0.005 (0.006)	-0.093 (0.033)**
No. of household members age 16-59	0.005 (0.007)	-0.055 (0.045)	-0.005 (0.006)	-0.156 (0.042)***
Size of child at birth -very small	-0.053 (0.069)	0.613 (0.414)	0.045 (0.048)	0.650 (0.300)**
Size of child at birth - small	-0.043 (0.061)	-0.082 (0.385)	0.017 (0.043)	0.503 (0.274)*
Size of child at birth - average	-0.034 (0.058)	0.105 (0.365)	0.006 (0.041)	0.516 (0.261)*
Size of child at birth - large	-0.010 (0.061)	0.058 (0.379)	0.024 (0.043)	0.446 (0.272)
Rate of female employment in governorate		4.551 (0.850)***		3.860 (0.562)***
Attended early childhood learning program	0.092 (0.028)***		0.135 (0.014)***	
Read books with mother	0.023 (0.018)		0.026 (0.014)*	
Read books with father	0.008 (0.023)		0.021 (0.018)	
Read books with others	0.046 (0.034)		0.047 (0.029)	
Told stories with mother	0.000 (0.018)		0.031 (0.015)	
Told stories with father	-0.033 (0.022)		0.013 (0.018)	
Told stories with others	0.101 (0.038)*		0.050 (0.031)*	
Sang songs with mother	0.006 (0.020)		-0.042 (0.016)	
Sang songs with father	0.002 (0.020)		0.005 (0.016)	
Sang songs with others	-0.121 (0.032)***		-0.066 (0.028)	
Taken outside with mother	0.012 (0.018)		0.001 (0.014)	
Taken outside with father	-0.011 (0.017)		0.007 (0.013)	
Taken outside with others	0.047 (0.036)		0.048 (0.027)*	
Played with mother	0.023 (0.021)		0.021 (0.017)	
Played with father	0.011 (0.018)		-0.012 (0.014)	
Played with others	0.079 (0.032)*		0.017 (0.025)	
Named/counted with mother	0.029 (0.019)		0.041 (0.016)*	
Named/counted with father	0.010 (0.020)		0.010 (0.016)	
Named/counted with others	-0.040 (0.037)		-0.037 (0.030)	
Plays with homemade toys	0.071 (0.029)*		0.065 (0.022)**	
Plays with shop bought toys	0.053 (0.026)**		0.051 (0.021)*	
Number of available books in home	0.009 (0.033)***		0.009 (0.002)***	
Mills ratio	0.041 (0.018)		-0.006 (0.014)**	
Autonomy index	0.029 (0.030)		0.036 (0.024)	
Mother is employed	0.179 (0.124)*		-0.213 (0.085)*	
Employed mother*Autonomy index	0.033 (0.097)		0.054 (0.077)	
LR test of independent equations	Prob > chi2 = 0.0011		Prob > chi2 = 0.0099	

Significance less than 0.10 *, less than 0.05 ** less than 0.01***

Interestingly, looking at the health indicators of birth weight, women who may have potentially worried about the health of their children are the ones who take up employment. For example, the coefficient for a very small size at birth is 0.65 at the 5% significance level whereas the coefficient for a large size at birth is insignificant. This suggests that, a mother may take the decision to work in order to improve children's living standards.

4.6.2 Association between maternal employment on early child development

In order to correctly account for the effect of maternal employment one needs to compare the actual coefficients of the maternal employment variable in the ECD regression and subtract from it the coefficient of the Mills' ratio. Recall that positive selection means that child development is underestimated on account of the selection into employment of women with greater unobserved ability. One possible explanation would be that women who select into employment live in areas with access to supportive networks that encourage female employment, such that women who enter paid employment have unobserved characteristics that can secure desirable outcomes in early child development. Per se, the positive effect of maternal employment on child development for ages 3-4 would have been underestimated if selection had not been taken into account, and similarly for the negative effect for age group 4-5.

To interpret selection accurately, the net selection effect is taken by the difference of the absolute values of the coefficients for maternal employment and the mills ratio. The coefficients of maternal employment are 0.174 and 0.213 for ages 3-4 and ages 4-5, and the

coefficients of the mills ratio are 0.041 and 0.006 for ages 3-4 and ages 4-5. This means the net impact of maternal employment on the selectivity corrected estimates of child development are a positive 13.8% impact for ages 3-4 and a negative 21.29% impact for ages 4-5.

The differences in the effect of maternal employment on the age groups lie in the varied needs of children and hence the responsiveness to the main variables of interest (Waldfogel et al., 2002; Heckman, 2007; Cunha et al., 2010). In other words, overall, children in the 4-5 years age group require more attentive care and engagement in learning activities by mothers than do children 3-4 years of age. Research on early childhood cognitive development of working mothers particularly focuses on the first three years of child outcomes, and generally reports negative outcomes (Brooks-Gunn et al., 2003). Negative effects are particularly strong in areas of language and mathematic development (Waldfogel et al., 2003). Similar to the findings in table 4-3, Ruhm (2004) specifically finds that for ages 3-4, there is a small negative effect of maternal employment on linguistic skill, however the negative effect is much larger for ages 4 and above in reading and mathematical skill development.

Turning initially to the 3-4 years category (column 1a), it is evident that resources allocated to learning retain higher importance than activities with adults. This is shown through the positive and significant coefficients of shop bought toys (0.053), number of books available (0.009) and attending an early learning program (0.092). The significance of resource variables can explain the positive influence of maternal employment as additional income is bought into the household. As time is often limited for working parents, resources can be used to supplement

time parents spend away from their children. While the number of children's books and toys available in the household with employed mothers are a positive and significant influence, the enrolment in early childhood learning programs proves to be more beneficial in comparison. Further evidence for the partiality of resources over parental involvement for ages 3-4 becomes clearer through the parental and household characteristics whereby neither parent's education level nor household composition affects child outcomes. Thus, income generated via maternal employment appears to be a welcome factor for child development for ages 3-4. Nonetheless, while resources remain an important factor for child development, it can be seen that the impact of children playing with home-made toys is slightly larger (with a coefficient of 0.071), suggesting that home-made toys are more likely in households with working mothers.

However, the narrative for children in the 4-5 years category is two-pronged as shown in column 2a. Both parental engagement and resource-based objects to learning are necessary for child development. The negative impact of maternal employment is offset by books available at home and appropriate toys for children, with coefficients of 0.009 and 0.065 respectively. Yet, enrolment in early learning childhood programs supersedes and holds higher significance in providing better development outcomes than it does for age group 3-4 with a coefficient of 0.135. In this age category, parental engagements in learning activities such as naming/counting (coefficient of 0.041), reading books (coefficient of 0.026) and telling stories (coefficient of 0.05) have a positive and significant relation with early child development. Such parental

engagement activities can be linked to the numeracy-literacy dimension of the ECD index.

As highlighted in the descriptive statistics, the numeracy—literacy dimension is often an area that children in Jordan score lowly in. Thus, extra involvement by parents may prove to be necessary. Ruhm (2004) identifies the age group of 4-5 as particularly crucial in etching school readiness and later life employability. The reason for needing parental involvement in parallel to resource based learning objects may be associated with the quality of learning programs. A study on Jordan shows that the majority of programs fall short of excellence in quality (Al-Hassan et al., 2009). Thus, it can come back to parents, especially mothers, to make up for the failure of learning programs and can explain the negative association with maternal employment. Moreover, in a study conducted on Jordanian children aged 4-5 who attended learning programs, Ihmeideh and others (2008) reiterate the importance of parallel parental involvement, however, find that engagement can be obstructed by unclear communication among program leaders and parents.

In terms of parental characteristics, parental education holds more significance for age group 4-5 than for the age group of 3-4 as both mother's education and father's education have positive and significant coefficients of 0.003 and 0.008 respectively. Additionally, mother's later age of marriage tends to be more beneficial for child development. Household composition does not hold any significance for ages 3-4. However, for ages 4-5 the presence of other household members under the age of five has a negative effect (coefficient of 0.019), suggesting once more that mothers remain the main caregivers and educators in the

household. While women's autonomy in decision-making is essential to how resources are allocated in the household, there is not a significant relation in the case of early child development for both age groups. 65% of the surveyed sample ranked very highly on the decision-making index. As discussed in the literature, other factors aside from economic decisions may play a role in children's learning process.

The most cognitive development occurs during the childhood years of ages 3-5, and in this time, relationships and social interactions with parents or caregivers are central to cognitive development (Thompson, 2013). Particular forms of social interaction are integral in setting a strong foundation for understanding numbers and languages, such as reading books with children and counting games (Thompson, 2016). However, as children mature the nature of parental involvement learning activities need to become more complex, for example, conversations evolve to discuss creative ideas and number games gear towards problem solving (Ma et al., 2016). The simpler foundations of numbers and language require higher degrees of intellectual stimulation via parental involvement. Essentially, the type of parental interaction required by a 3-4 year old is not sufficient for the cognitive development of a 4-5 year old. This explains the negative association between maternal employment and child development for the 4-5 age category. It also explains the alleviating effect of enrolling children in early learning centres and the presence of books as learning resources. As factors such as having greater income can compensate for less stimulating activities that a working mother may have provided, specifically for older children (Lubotsky, and Paxson (2002; Paxson and Schady, 2007).

To ascertain the relationship between resources (such as toys, books, enrolment in early childhood education) and maternal employment, an extended model specification was explored. For both categories of children, enrolling children in early childhood education and availability of resources in the household encourage female employment, as well as remaining significant and positive for ECD. A similar story appears whereby resources, especially enrolment in early child education, play an important role in mothers' pursuit of employment.

4.7 Conclusion and policy recommendations

There is much misinterpreted concern regarding women's employment and child welfare in Jordan, often which is amplified as a justifiable reason by husbands, fathers and employers to limit women's participation in the formal labour market. This article aimed to shed light on such speculation by examining the association between maternal employment and early child development. The first main rebuttal is the prevalence of positive selection, showing that women who enter formal employment have certain conditions that enable better child outcomes than women who are not in formal employment. Secondly, the influence of maternal employment is not a straightforward ordeal and is dependent on a myriad of factors and varying needs of children at different age groups. Nevertheless, there are protective factors that counter the risk of reduced maternal time with children including enrolment in early learning centres and flexibility in parental engagement. The concluding implications for concerns about child welfare under maternal employment are two-fold: supporting women's employment and supporting parental-child learning activities.

Maternal employment can bring positive outcomes for child development under enabling conditions. Specifically, encouraging conditions are reflected by high female employment rates by governorate and indicate structural differences across communities. Inequality in opportunity of affordable and accessible childcare with core learning components is often a starting point for policies to target. As childcare is one aspect of major concern and obstructs married women's employment, once these structural issues are addressed, it can act as an enabler for women to negotiate their right to work (Chevalier and Viitanen, 2002; Dujardin et al, 2018; Raz-Yurovich and Marx, 2019). However, providing solid childcare merely covers one aspect that limits women's labour supply and must be conjoined by initiatives that challenge gendered division of labour in households (Bittman et al., 2003; Kalenkoski et al., 2008; Thébaud, 2010). That is, arguments for improved efficiency achieved by women's employment, such as higher household incomes and national economic growth, must also be accompanied by equity arguments that ensure mothers are not doubly burdened by unpaid care work in the home.

However, an even greater incentive is the long-term successes of early learning programs over child care programs (Kagiticibasi et al., 2009). Programs to further bolster the positive influence of early learning centres should focus on improving the quality of curricular. Specifically, orientating curricular towards the low-scoring numeracy-literacy dimension can offer substantial future gains (Burchinal, 2017). Additionally the results show that the negative influence of maternal employment for ages 4-5 is offset by factors such as parental engagement

in activities related to literacy-numeracy. Policies to support children of working mothers in this sense are numerous. Beginning with the most vital, engaging fathers in early childhood learning, policies to advocate flexible work hours for both parents is beneficial. Yet this must operate in tandem with conscious gender training that targets traditional gender roles. Additionally, training programs on parental-child education have also proven to reap successful outcomes (Sirali et al., 2015).

Nevertheless, the negative outcome of maternal employment on child development among the age group of 4-5 cannot be taken to mean employment is necessarily harmful. Rather, it should be noted that production of quality learning environments to raise children and foster strong cognitive and non-cognitive skills is a complex business that incorporates many dimensions that are not entirely captured through the use of the Demographic and Health Survey (Baum, 2003). Moreover, while the DHS offers an advantage in giving a nationally representative study, this study cannot claim causality through the use of cross section data and as such only reports associations. A second limitation of this study relates to the possibility of a two-way relationship in that mothers of children who have higher cognitive ability work, whereas mothers of children with lower cognitive ability do not work (Bernal, 2008).

While policies pertaining to the specific relationship between maternal employment and child development cannot be offered due to limitations in the estimations, policies around mother's employment remain relevant and important. First, as the general thrust of literature globally agrees that improved socioeconomic conditions are better for child development (Buckles, 2018). Secondly, as the gap between low and high-income

households is increasing, women's employment plays a role in improving socioeconomic conditions in the household.

4.8 Appendix

Table 4-4
Items included in Early Child Development Index

<p><u>Literacy-Numeracy</u></p> <p>Can (name) identify or name at least ten letters of the alphabet? Can (name) read at least four simple, popular words? Does (name) know the name and recognize the symbol of all numbers from 1 to 10?</p>
<p><u>Physical</u></p> <p>Can (name) pick up a small object with two fingers, like a stick or a rock, from the ground? Is (name) sometimes too sick to play?</p>
<p><u>Learning-Cognition</u></p> <p>Does (name) follow simple directions on how to do something correctly? When given something to do, is (name) able to do it independently?</p>
<p><u>Social-Emotional</u></p> <p>Does (name) get along well with other children? Does (name) kick, bite, or hit other children or adults? Does (name) get distracted easily?</p>

Chapter 5 Conclusion

5. 1. Summary and lessons learnt

The thesis has set out to examine women's participation in the paid labour force in Jordan via three dimensions: the gender wage gap, the influence of norms on occupational choice, and the implications of maternal employment for child development. This thesis finds that there is a spectrum of socio-cultural and economic challenges that individual women face, and in turn there is a spectrum of dynamic efforts by women to engage in the labour market. The results conclude that women in governorates with accessible job opportunities and networks of support are more likely to be employed and benefit from equal wages – with the caveat of being employed in socially acceptable occupations. For those not in socially acceptable sectors, this thesis portrays the tactics used to manage norms and find that femininity and class are the cornerstones to decisions of whether to conform or deviate from norms. Finally, this thesis deconstructs the role of women as mothers and the complicated influence of maternal employment on child development. The lessons learnt are recalled in the three sub-sections below.

Part 1: Gender wage gap

First, I examined the gender wage gap in Jordan in chapter 2. Despite labour laws that relate to equality in wages, discrimination still persists. In part, wage disparity among men and women in Jordan is explained by private sector hiring practices (Said, 2014) and perks offered to men with families (Baylouny, 2008). However, most studies have looked at average wages and neglect to account for lower female employment levels. With the barriers to FLP in mind, it can be assumed that women who are

employed have higher abilities than the average woman not in employment. As such, a deeper understanding of where the issues lie is required.

Motivated by this, chapter 2 asks the questions of “*Where along the wage distribution is the differential between women and men largest?*” and “*Why do wages among women differ?*” To answer these questions, I employ a state of the art model, which is quantile regression corrected for sample selection.

Participation patterns differ among women due to an unlevelled playing field. Primarily, it is found that governorates with high female employment rates encourage individual women to enter the formal labour market. This is reflective of both employment opportunities as well as unobserved attitudes to women’s employment outside of the home. Furthermore, gender norms influence where women work, women are more likely to seek employment in the public sector, and professional occupations. FLP is usually high in the 50th decile as these opportunities are enabling for women. Whereas, there is evidence that women in the lower and upper deciles of the earnings curve have higher earning abilities than average, indicating that the playing field is not level/opportunities are fewer.

The wage gap is large where women struggle to enter occupations or sectors that do not conform to social norms. Bearing in mind the variation in labour market participation, chapter 2 reveals where the gender wage gap differs along the earnings distribution curve. Specifically, there is prevalence of glass ceilings and sticky floors, despite the lower skilled being pushed out of the market. However, wages for men and women converge at the median

– where the majority of female labour market participation falls in the public sector, administrative jobs.

Public sector policies in the 1970's still encourage fair employment and wages today – but up to an extent. These successful policies that provided support for women and families can be mirrored in the private sector too. It becomes even more necessary to consider fair policies for low and high skilled occupations considering the trend of decreasing job opportunities. However, the underpinning gendered notion of “acceptable jobs for women” is the core of what needs to be addressed.

Part 2: Occupational choice

Chapter 2 showed that FLP is penalised in occupations that are outside of the norm. As such, in chapter 3, I studied occupational choices of women employed in occupations that transcend gender norms.

I interviewed 42 women of various socioeconomic backgrounds in Amman about their career choices and paths to answer the question of “*what factors encourage and support women who work in non-traditional jobs and industries across socioeconomic groups?*”. The definition I use in chapter 3 for non-traditional jobs goes beyond scope of women in male dominated occupations such as lawyers or managers, but I also examine jobs that cross the boundaries of cultural gendered norms. For example, the work taken up by nurses involves some physical contact with male strangers as well as night shifts; both of these aspects are regarded as socially inappropriate.

Femininity and class are the cornerstones for the decisions to conform or deviate from norms. Specific factors about work choice include: financial need to work,

betterment of social life style and having access to prestigious jobs. However, the intersection of these economic situational factors with femininity intercedes to determine career path and extent of engaging with non-traditional work – giving rise to the term enclaves.

Gender norms appear to be preserved through 'enclaves' - Through the extent to which women engage with non-traditional work. The daily interactions with families, male colleagues and class background present arenas where women negotiate. For example, non-traditional work can be rationalised to these actors by relaying actions that do not encroach gender norms; i.e. a lawyer that does not work in public courtrooms or a plumber who only works with women and during the day when male household members are absent. However, while not necessarily overstepping the boundaries of gender norms, the use of enclaves allows women to use familiar discourse to pursue their careers without necessarily internalising gender norms.

Transformative change arises through direct strategies to negotiate with families, male colleagues and class. While some women subversively dealt with norms, other women directly challenged norms by doing physical work, driving jeeps in construction sites and taking on night shifts. In addition to that, cross-class collaboration among women enabled changes in domestic gender relations.

Part 3: Maternal employment

Lastly, I analysed the association between maternal employment and outcomes for child welfare. The literature on the consequences of maternal employment in Jordan is limited; findings suggest that employed women face higher rates of gender-based violence (Lenze and Klassen,

2017), however children's nutritional status is improved (Miles-Doan and Bisharat, 1990; Jansen, 1997; Sharaf and Rashad, 2016). It is also known that unproven normative presumptions assume negative outcomes of employment for child wellbeing are often used as justifications to restrict women's labour supply (Moghadam, 2013; Al-Mahadin, 2004; Al-Mahadin; 2017).

As previous chapters have shown, varied socioeconomic conditions among women produce different conditions for FLP. In understanding how child development is affected under maternal employment, outcomes of FLP are examined under the lens of socioeconomic inequality. Thus, to deconstruct normative assumptions and examine the role of maternal employment in future inequalities, chapter four asks the question of “*How does maternal employment impact early child development?*” and “*Do the effects differ for children aged 3-4 and children aged 4-5?*” by using a multi-dimension index to incorporate cognitive and socio-emotive dimensions of child development. Employing a treatment effects model, selection and endogeneity are considered.

Children from households with employed mothers are more likely to be developmentally on track than children from households without employed mothers. This is particularly true in the literacy-numeracy domain, which is the lowest achieving domain. Typically, on average, employed mothers spend more time on ‘active’ learning activities with children. Moreover, in households with employed mothers, fathers too are more likely to engage with children in ‘active’ learning activities. However, other household members are unlikely to compensate for time mothers spent away from children.

Mothers who engage in paid employment outside of the home have enabling conditions. Similar to chapter two, chapter four shows that there is evidence of positive selection in employment. Enabling conditions such as access to opportunities, positive attitudes to women's work and support networks encourage mothers to take up employment. Once more, there are resounding inequalities of opportunities relating to governorate of residence. Moreover, the autonomy index and interaction between the autonomy index and employment indicator variable was insignificant for child welfare. This showed that structural factors indeed need to be addressed for maternal employment to secure beneficial outcomes for children.

The influence of maternal employment on child development is not uniform. There are nuanced outcomes for child development that vary by age group and child needs. Overall, the association is positive for younger age groups yet negative for older age groups that have growing needs. However, protective factors to counter the negative association exist, such as enrolling children in early learning centres. The negative aspect about such protective factors, specifically enrolling children in early learning centres, is that it depends on households being located in areas where educational reform did take place, or households having enough income to enrol their children in private early learning centres.

5.2. Contribution to knowledge

Each chapter has contributed deeper insight into the factors that encourage women's participation in the paid labour force. This thesis achieves a broader and deeper understanding of FLP, through both socio-cultural and economic avenues to decision making thus offering a

significant contextual contribution for policy and development programmes that require locally relevant approaches rather than one size-fits-all programmes.

The core strength of this thesis is that differences among women are recognised and integrated into analysis. By depicting the spectrum of socio-cultural and economic challenges that individual women face, this thesis ultimately makes the case that in turn there is a spectrum of dynamic efforts by women to engage in the labour market. Both quantitative chapters revealed that there is positive selection into employment. Typically, that means that women who enter employment have skills, education or abilities that are above the average level. In addition to labour supply characteristics, employment opportunities for women are significant in explaining work status according to the exclusion variable of cluster average of female employment rate. That is, employment opportunities for women in the vicinity as well as unobserved community attitudes towards women's work influence female employment decisions. Qualitatively, chapter three compliments and enhances this knowledge by intertwining the terms of elite dignity and femininity as the cornerstones for decisions about employment. The nuanced interaction between social norms and agency are interspersed by economic necessity and desire for autonomy. Overall, this thesis shows that women defy, extenuate or when necessary conform in order to swerve social norms and manage low labour demand to engage in employment. As such a comprehensive image is combined to contribute to a deeper understanding of women's employment in Jordan.

This thesis contributes contextual knowledge to research on everyday socio-cultural resistance which is often overlooked by large-scale events, such as the Arab spring. Successful on the ground strategies as shared by Jordanian women ranged from pushing the boundaries of acceptability, to shrewd negotiations at the margins or complete non-cooperation. These strategies prove that, to achieve effective mechanisms to engage women in the workforce and deal with discouraging social norms, programmes need to be customised for context. In relaying the individual barriers to employment that women encounter, it is clear that not all women face the same challenges and the ability to respond to challenges is indeed influenced by one's socio-economic position. Chapter three shows how women from different backgrounds manage issues around employment to differing extents – the creation of enclaves to preserve gender norms largely rests on class and subsequent notions of femininity. Most notably, women from working or lower-middle class backgrounds deployed openly defiant strategies to transcend social norms.

Consequently, this thesis produces important analysis of intra-group inequality - that is inequalities among women. Patterns of selection into employment reveal an unlevelled playing field (chapter two and four) which draws attention to differences in opportunities across governorates - as reflected by the exclusion criteria. Governorates have varying employment opportunities, proximity to work places and networks of support for women that significantly determine rates of female employment. Concern over increasing inequality gaps in Jordan are duly portrayed in early child development outcomes. Buckles (2018) ascertains “because earnings gaps between more and less educated women grow throughout the 20s and 30s, trends such as later childrearing

could exacerbate socioeconomic differences in infant and child outcomes”.

Additionally, on a wellbeing level, this thesis also sheds light on the internal conflict between economic necessity and encroaching gendered norms about women’s employment. Chapter three conveys remnants of class resentment among women who feel they are pushed to work or women who work to emulate upper class lifestyles. Regardless of the motives, women redefine their roles as mothers through the interplay of class and norms to improve socioeconomic positions. This dimension highlights important notions about the process of transforming norms about women’s employment and the need to be aware of internalised beliefs.

This thesis contributes knowledge about transformative social change across socioeconomic groups that occur outside of development programmes. Literature on Jordan critiques the effectiveness of NGOs for women’s empowerment, arguing that the experiences of the poor have not been empowering or liberating (Sukarieh, 2015). Rather, NGOs have led to a reproduction of power structures and promotion of neoliberal agendas (Jad, 2003; Clark and Michuki, 2009; Sukarieh, 2015). As such, this thesis offers insight into alternative mechanisms for cross-class collaboration, pioneers and role models in transcending social norms emerging from women from a variety of socioeconomic backgrounds.

This thesis contributes further knowledge about transgressing norms. Wage penalties exist for women in occupations that do not adhere to

norms and entry into such jobs is difficult (chapter two). Jordanian women do not only compete with glass ceilings and sticky floors, women are in a direct struggle against norms. Nevertheless, while existing social norms may not allow much room to manoeuvre, or allow all women to access these jobs on their own terms, we see how the concept of enclaves allows women to work within existing confines and find cracks to exploit.

Using a mixed methods approach, this thesis innovates both quantitatively and qualitatively. In applying a novel quantile regression model that also accounts for selection, chapter two enables an analysis that considers women as a heterogeneous group accordingly extending analysis to both intragroup and intergroup inequalities. Chapter three contributes a fresh approach through the use of vignettes as a method, providing a different way to listen to participants and utilise their interpretation rather than solely focusing on the researcher's interpretation. Finally, the entire thesis consorts to offer conclusions that expand on the current empirical literature on women's employment in Jordan.

5.3. Limitations

Despite efforts, it is useful to clarify the limitations of what this thesis does and does not set out to accomplish. In the first paper, chapter two, the gender wage gap is examined by hourly wage. However, feminist economists have criticised the use of hourly wage as a unit of analysis to assess the value of work. For one, the volume and quality of work completed by individuals per hour may differ (Lips, 2012). Moreover, hours worked are self-reported values and are subject to bias (Lips, 2012). Nevertheless, hourly wage stands as a useful starting point to analyse the valuation of work as work hours in Jordan tend to be rather fixed unlike

in developed countries that may show greater variation in hours worked (Groh et al., 2015; Alhawarin and Kreishan, 2017). Particularly as in Jordan, part time work in the formal labour market is negligible.

The second empirical chapter, chapter three, set out to examine the ways in which women manage gender norms. A few considerations prevail that are: researcher positionality, lack of generalisability and limitation in not interviewing men too to talk about gender relations. Unpacking my positionality was an important part of managing researcher positionality. I spent the vast majority of my formative years in England and completed a Western private school education in Amman, I moved to a public university in Irbid (a governorate known for being surrounded by the highest number of small villages) with a very different culture. This placed me dually as an ‘outsider’ and ‘insider’ to many of the women interviewed. In interviews with those who considered me an ‘insider’ it complicated discussion as it was assumed we had a shared outlook (Abbas, 2018). This prompted me to ask more specific questions. In interviews with those who considered me an ‘outsider’, I focused on building rapport and deconstructing our divergent perspectives (Abbas, 2018). However, being aware of my positionality and identity before going into the field was necessary (Altorki and El-Solh, 1988). In being aware of my positionality I adapted the interview approach. Thus, through the use of vignettes and a smaller number of questions, rather than using a long list of open ended interview questions, to stimulate discussion. Additionally, I focused on coproducing knowledge with the women I interviewed. The vignettes written were based on stories shared from an initial group of women I had interviewed, employees from NGOs who worked on microfinancing women’s projects in low income areas and local

development consultants. Although qualitative research is not designed to be generalised, the insights gained and method used can be extended to other contexts.

In the third empirical chapter, chapter four, the association between maternal employment and child development is examined with the aim of disproving normative assumptions about harmful outcomes of women's employment. However, the relationship between maternal employment and child outcomes is one of many relationships. Despite efforts to account for selectivity into employment, it was not possible due to data limitation to account for the endogenous relationship between the outcome ECDI and the choice to enrol children in early learning programmes. As such, the findings of chapter four are limited to the assumption that parents will make similar decisions for children regardless of perceived ability.

Finally, in both quantitative pieces of work (chapter two and chapter four), similar data limitations exist. Both the JLMPS and DHS are sampled on the 2004 housing and population census. The sampling does not include unconventional residences such as hotels, prisons, work camps and the like. The sampling in the second wave of the JLMPS, 2016, was amended to capture changing events and includes a wider range of residents for example refugees and migrants (Krafft and Assaad, 2018). Thus, it is noteworthy to mention that the 2010 JLMPS and 2012 DHS may not fully represent the non-Jordanian population, whom often reside in their workplaces i.e. at construction sites or guard places. Nonetheless, the JLMPS and DHS remain suitable datasets in answering questions on wages (chapter 2) and child welfare (chapter 4).

5.4. Possibilities for future research

This thesis ties in with ongoing research on the Jordanian labour market in a number of ways. Current growing interest in programmes and policies to absorb refugees (i.e. Jordan compact model) has raised issues about its effectiveness (Lenner and Turner, 2018). Most notably, the concern around non-Jordanian (particularly Syrian) women's employment or lack thereof, has some similarities to the case of Jordanian's women's employment. This thesis has further proved the necessity of incorporating intersectionality into understanding women's employment in Jordan, future research would benefit from a continual improvement in measures of socioeconomic status as well as ethnicity.

This thesis shows through the coalition of findings from qualitative (chapter three) and quantitative (chapter two and four) findings that it is much more than 'reservation wages' that determine women's decision to enter the paid labour force. Where the quantitative chapters utilize an exclusion criterion that broadly reflects labour supply and demand conditions, the qualitative chapter reflects that decision making encompasses day-to-day conditions as criteria. As such, future research can look to modelling 'reservation conditions'.

The results of chapter two and four emphasize variances in female labour supply and demand among governorates. This presents an avenue for further disaggregated research about women's employment decisions which can be helpful in determining 'reservation conditions'. An in-depth examination in the specific factors among governorates relating to transport, job opportunities and attitudes to women's employment would be an interesting avenue for exploration.

Chapter four examined a domain of household bargaining – that of allocation of resources to child welfare. As a multi-dimensional and complex domain, further research can focus on gender relations in the household to ascertain decision making in the allocation of parental time and resources towards childcare.

Chapter three deliberates transformative social change and calls attention to gender relations. While during fieldwork, there were a few conversations with the male colleagues of the women interviewed, some of which were intrigued by the vignettes and initiated discussion, it was not the scope of this thesis. Recent research has found that young men in Jordan have increasingly more conservative views than the previous generation (Chamlou and Karshenas, 2016), this necessitates that men are part of the conversation on gender norms and gender relations. While it has been shown that the pressures created by gender norms for example, with regards to the heavy demands that men must provide, less is known about how gender relations change in Jordan with women in the workforce. Moreover, with the backdrop of findings from chapter three on class resentment, this interplay of changing gender norms in productive responsibilities points to a need to expand research focus to wellbeing aspects.

5.5. Concluding remarks

In conclusion, this thesis has contributed to the phenomena of Jordanian women's low employment rate despite high education. It has successfully utilised a mixed methods approach to address the divergent economic and socio-cultural factors of FLP. In appreciating heterogeneity among women, it has provided unique empirical results on the gender wage gap

across the distribution and patterns of selection. Through an innovative approach to interviews, it has offered great insight into the various strategies women craft to manoeuvre discouraging norms about female employment in non-traditional jobs. At last, in tackling misconceptions about child welfare, analysis at a household level initiates dialogue and understanding of outcomes for child development. Overall, this thesis makes a significant contribution towards the positive factors that influence and encourage women's employment in Jordan with regards to transformative social change.

Understanding women's economic participation in context denotes a multifaceted nature. It is intersectional and encompasses views of culture, ethnicity and class as well as gender. However, FLP can entail much nuance and many perspectives and is dynamic that drawing conclusions, let alone generalising them, is indeed a difficult task. Yet the process of learning has challenged and altered (and continues to challenge) the researchers' perspective on gender and employment. Moreover, depicting inequalities among women and the ensuing unlevelled playing field enables a depiction of issues on the ground. It is as such that these lessons are the rewards that can be carried forward in further academic inquiry and shaping effective policy.

Thus, this thesis offers practical contributions for state and NGO programmes through pursuing economic and gender justice. As shown throughout the thesis, gender norms should be targeted for effective programmes and policies. As the wage gap study has shown, national policy to engage women in the workforce were successful in certain occupations in the public sector however women face backlash in

nonconforming occupations. Despite this, this thesis portrays the strategies women resourcefully use to support their career progression and support one another. As development literature also endorses, effective and positive achievement of development goals, is often seen through 'pockets of effectiveness' rather than large scale national programmes (Hulme et al, 2017). Thus, in achieving positive and transformative outcomes of increased FLP, employing a social justice angle is beneficial.

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