Conclusions and discussion
6.1 Introduction

Female labour market participation has changed substantially over the last few decades in the Netherlands. There has been a sharp increase in participation and women also remain in the labour market after having children. Mothers, who traditionally formed a group with low labour force participation, have now taken up work in large numbers in part-time jobs. This tremendous increase in part-time employment has resulted in a combination of high levels of employment with low average working hours is something in which the Netherlands is unique in the world.

The increase in female participation in the labour market can be attributed to a combination of factors. Women have become better educated, there has been a drop in fertility and there is greater acceptance that women combine work with raising children. On the demand-side, there has been a shift from agriculture and manufacturing towards a service economy in which women are overrepresented. A broader variety of employment and work-time arrangements have also become available.

Despite the increase in female participation, important differences between the position of men and women in the labour market remain. Women work fewer hours, earn less, are more frequently unemployed and their share of jobs at a supervisory level is lower. This unfavourable position of women in the labour market is referred to in the literature as the gender employment gap. This thesis contributes to existing literature by exploring several aspects of the gender employment gap. Attention is paid to gender-specific differences in employment rates, working hours and career advancement. In addition, the regional character of the labour market is also taken into account, as well as possible spillover effects between local labour markets. The main aim of this thesis is therefore to gain insight into the gender-specific regional differences in labour market participation in the Netherlands. To accomplish this aim the following research goals were formulated:

1. To increase insight into the regional variation of gender-specific employment in the Netherlands and more specifically regional variation of the gender employment gap
2. To gain further insight into the determinants of regional variation in female labour participation by incorporating observed and theoretically derived latent variables
3. To explore the options for increasing working hours by analysing the dynamics in working hours of female and male employees in the Netherlands
4. To gain insight into the determinants of female and male career advancement in financial services

Each of these research goals has been addressed in the preceding four chapters. The results obtained are integrated in this final chapter. First, a summary of the main results is presented, followed by a discussion of the data and methodology. The chapter concludes with directions for future research and policy implications.

6.2 Summary of the results

The paper in Chapter 2 entitled Gender-specific spatial interactions on Dutch regional labour markets and the gender employment gap analysed the gender-specific employment rates in Dutch municipalities for 2002. Despite the increase in female participation since the mid-1980s, the gender employment gap still persists. An increase in female participation can contribute to maintaining current welfare levels in a rapidly aging society. The aim of this paper was therefore to gain more insight into the determinants of gender-specific participation.

To explain the gender-specific regional variation in employment rates, a combination of explanatory variables consisting of socioeconomic characteristics and the regional opportunity structure was included in a spatial econometric model of the municipal gender employment gap and female employment rates. Since no significant spatial structure could be identified for male employment, an OLS regression was used. The model structure provided the best fit in terms of the adjusted R square for the gender employment gap of 0.53 and the lowest explained variance for male employment rates of 0.38. The adjusted R square for female employment is 0.49.

The socioeconomic determinants of the gender employment gap displayed the theoretically expected relationships. The gap narrows with higher female disposable income and, in line with human capital theory, widens with a higher ratio of the share of low educated females to low educated males. Male disposable income has no significant effect on male employment or on the gender employment gap. Municipalities with a larger proportion of men close to retirement, the 50-60 age
group, have lower male employment rates, but this displayed no significant relationship with the gender employment gap. Municipalities with a larger proportion of women in the 40-50 age group, just beyond the typical reproduction period, show higher female employment and also a smaller gender employment gap. A larger proportion of children and elderly dependents on the other hand has a significant negative effect on female employment and also widens the gender gap, indicating that caregiving tasks lower female participation. The dependency ratio has no significant effect on male employment rates.

For regional opportunity determinants, some results were as expected, others however were not. The regional opportunity structure of urban areas indeed proved to be favourable for female labour participation. Furthermore, the gender employment gap is smaller in urban municipalities. There is however a negative but insignificant relationship with male employment. Poor access to local employment opportunities, measured as female and male unemployment, has a negative effect on female and male employment as well as the gender employment gap. However, men and women often do not compete for the same jobs. Therefore high male unemployment has a significant indirect positive encouragement effect on female employment rates and vice versa. There was no significant effect of a favourable sector structure for women measured as the industry mix, but instead, there was a negative significant effect on male employment.

The absence of a significant relationship between the vacancy-unemployment ratio, commute duration and the availability of childcare facilities and male and female employment was unexpected. Particularly remarkable was the absence of a significant relationship between the provision of childcare and female employment. The explanation for the absence of a significant relationship between male and female employment and commute duration could be the absence of gender-specific data. There are several possible explanations for the insignificant impact of the provision of childcare facilities.

This lack of impact could result from the low uptake of formal childcare in the Netherlands in the study period. According to Te Riele (2006), 60 percent of households with children aged 12 or younger, with at least one of the parents working 12 hours a week or more, do not use childcare. There could also be a spatial mismatch between the need for childcare and the location of childcare facilities. Before the Childcare Act of 2005, childcare facilities were subsidized by
municipalities with a preference for non-profit organizations commonly found in smaller municipalities (Noailly et al., 2007). Since the level of use is commonly lower in these smaller municipalities, the added stimulus to use childcare facilities has apparently not yet resulted in a significant increase in participation rates. Section 6.3 provides a further discussion of the measurement issues in the provision of childcare.

Chapter 3, entitled *Determinants of regional female labour market participation in the Netherlands* presented the results of an additional analysis of the regional variation in female employment rates for Dutch municipalities in 2002 by means of a spatial structural equation model (SEM). The advantage of a SEM model framework is that it allows for a close correspondence between theory and empirics and it reduces multicollinearity, since strongly correlated observed variables, i.e. indicators of an underlying latent variable, are substituted by latent variables. SEM also offers an alternative methodology to incorporate the spatial dependence structure. The latent variables created in the structural model are included in the measurement model as dependent variables alongside the other observed variables. The structural model and measurement model of the latent variables were estimated simultaneously by means of maximum likelihood.

The model contains two latent variables: female-dominated sectors and socioeconomic status. Female-dominated sectors consist of the percentage of jobs in healthcare and the percentage of jobs in education and government in a municipality, which according to the measurement model are the most important indicators of female-dominated sectors. Socioeconomic status consists of the proportion of better educated women, the percentage homeownership and female disposable income, which is the most important indicator of socioeconomic status according to the measurement model.

The R square value of the structural model is 0.72 and indicates that about 72 percent of the variation in female participation is explained by the model, which is substantially higher than the R square of 0.49 of female participation modelled in Chapter 2. Adding the socioeconomic status and female-dominated sectors latent variables contributed significantly to the higher explained variance. The industry mix used in Chapter 2 did not show a significant effect on female employment or the gender employment gap, whereas female-dominated sectors clearly have a significant positive effect on female employment rates.
Most determinants displayed the theoretically expected relationship with female labour market participation and corresponded to the findings presented in Chapter 2. Municipalities with a larger proportion of women just beyond the typical reproductive period show higher female employment rates and municipalities with a larger proportion of children or elderly people, i.e. higher demographic pressure, show lower female employment rates. A larger proportion of unemployed males has a positive significant effect, which can be interpreted as the result of an additional-worker effect. A larger proportion of unemployed females in a municipality has a negative significant effect, which can be interpreted as the discouraged worker effect.

In addition to female and male unemployment proportions, the lagged gender-specific unemployment proportions are also included in the model to capture the spatial spillover effects that result from the use of smaller units of analysis, namely municipalities. The negative significant effect of lagged male unemployment can be perceived as a general indication of poor chances on the labour market that lead to discouragement. The positive significant effect of lagged female unemployment is difficult to interpret because the traditional explanation for the added worker effect does not apply. Women could view higher unemployment levels in neighbouring municipalities as a sign of a deteriorating labour market which in some way stimulates them to search for work with increased effort. Another explanation could be that higher unemployment proportions are found in urban areas, and mainly affect the lower skilled females. If the higher skilled females compete for jobs with these lower skilled unemployed, this could result in larger numbers of unemployed females in neighbouring regions.

Chapter 4, entitled *Gender-specific dynamics in hours worked: exploring the potential for increasing working hours in an aging society* analysed the changes in the working hours of female and male employees. With the decline of the working-age population as a result of aging, the increase in part-time work by female and male employees in the Netherlands poses a threat to current welfare levels. The aim of this paper was therefore to explore the possibilities for increasing the working hours of people currently active in the labour market. The determinants of working hours were analysed in two steps with an OLS regression followed by an analysis of the observed changes in working hours by means of a bivariate probit model with sample selection.
The results showed that men worked 37 hours on average, whereas women worked 27 hours a week. In line with human capital theory, employees with higher wages work more hours, as do employees who work in highly skilled innovative jobs. Employees who work in large firms also work more hours. Mothers work fewer hours than female employees without children, regardless of the age of the children, whereas fathers only work fewer hours when the children are young. Single women, single mothers and lesbian employees work more hours than females belonging to a heterosexual couple. However, single men, single fathers and gay male employees work fewer hours than heterosexual men in a relationship. Women who live in highly urban areas, particularly in the Randstad region, benefit from the local opportunity structure and work more hours, whereas men who live in highly urban areas work fewer hours, because of the higher prevalence of symmetrical household arrangements.

The second part of the analysis, where the changes in working hours observed were analysed using a bivariate probit model, showed that women change their working hours on a much larger scale than men and that most of the changes in working hours occur in the healthcare sector, where women are overrepresented. Women in minor part-time jobs are more likely to change their hours, whereas women in full-time jobs are less likely to do so. Both men in minor part-time jobs and in full-time jobs are more likely to change their hours than men in part-time jobs.

Employees who have experienced a change in hourly wage, a change in the regularity of their working hours, or who work in an expanding company are more likely to change their hours. With respect to changes in the household situation, having a baby increases the likelihood of changing working hours. For men, becoming single implies a greater likelihood of changing working hours. Gay men are also more likely to change their hours whereas lesbian employees are less likely to change their hours. Employees with higher wages or who work in highly skilled innovative jobs are less likely to change their hours.

For the sample of employees who actually changed their working hours, the results showed that women who worked in minor part-time jobs are more likely to increase their hours, as are women who have experienced a decrease in their hourly wage or who work in a growing company. When the youngest child reaches secondary school age, women are also more likely to increase their hours, as are women who have become single. Having a baby increases the likelihood of
decreasing the working hours of female employees, particularly with the birth of the first child. For men, the birth of the first child is also negatively significant, however, the birth of subsequent children has a lagged significant positive effect. Men who have experienced a decrease in wages are also more likely to increase their working hours. Employees who change their job type from irregular to regular hours are more likely to decrease their hours, and interestingly, for male employees the same applies to a change to irregular hours. For female employees the effect from changing to irregular hours is positive but insignificant.

The job characteristics of partners, other than wage and working hours, do not have a significant effect on the likelihood of change or the direction of a change in working hours. When a partner experiences a decrease in wages, both male and female employees are more likely to increase their working hours. When a partner increases his or her working hours, this has a negative but insignificant effect for female employees and a positive significant effect for male employees. The wage of a partner generally has a positive significant effect on the likelihood of increasing working hours for both female and male employees.

The paper in Chapter 5, entitled *Climbing the ladder: gender-specific career advancement in financial services and the influence of flexible working time arrangements*, addressed differences in the career opportunities of 10,000 mid and top-level managers in a Dutch financial services company. The data were obtained from the personnel records of the company and included the career characteristics of individual employees as well as their background characteristics. Career advancement was measured in terms of tangible outcomes, i.e. job level, income and career mobility between 2001 and 2008. Attention was paid to the influence of working time arrangements, in particular working full-time over four days (4*9). Models were estimated by means of an OLS regression for the entire sample, including a gender dummy, for men and women separately, and for the group of employees who work 4*9.

Theory suggests that female managers have more obstacles to their careers than their male colleagues due to gender discrimination, the presence of predominantly masculine organizational cultures and, for female managers with children, the double burden of combining work with family responsibilities. Empirical results to a certain extent confirmed these theoretical expectations, but
simultaneously also provided some new insights. In general, female employees earn less than their male colleagues and work at lower job levels, but they do show higher career mobility. The higher career mobility of female employees could be the result of a catching-up effect for women starting at lower levels than their actual capabilities. After correcting for internal experience and external experience, the difference in job levels between female and male managers ceases to be significant. The feminization rate of management rates shows that of the young managers, almost 40 percent are female, whereas for senior managers this percentage lags at 15 percent. This suggests that younger generations of female managers are outperforming the older generations; however, whether or not they will hit a glass ceiling in the course of their careers remains to be seen.

Working part-time or less than five days a week has a negative significant effect on all aspects of career advancement. Showing career commitment in a masculine corporate culture implies working full-time, five days a week, and employees who deviate from this norm earn less, work at lower job levels and show lower career mobility. This effect is, however, larger for male employees. Tenure has a positive significant effect on income and job levels, but only for male employees are the rewards for additional years of external experience substantially higher than for internal experience. However, where employees are willing to commute over longer distances or are willing to relocate to Amsterdam, the location of the corporate headquarters, they show higher career mobility, work at higher job levels and earn more.

Estimating the models separately for male and female employees revealed some remarkable differences. Factors traditionally associated with masculine corporate culture, such as tenure and above average appraisal scores, show higher pay-offs for males than for females. The presence of factors that are typically associated with the barriers for female career development, on the other hand, do more harm to male employees than female employees. Working part-time or full-time in four days results in substantially lower salaries for male employees. The coefficients for being sick more often than average are also substantially higher for men than they are for women. Finally, the model estimated for the group of 4*9 employees shows a positive significant effect of being female for income and job level. Apparently, female managers who work 4*9 and thereby, at least to a certain extent, comply with the masculine culture of working full-time are rewarded, whereas male
managers who work 4*9 are actually penalized for showing less career commitment by working only four days a week. Indeed, introducing this form of flexibility into a predominantly masculine organizational culture offers new opportunities for career advancement, albeit solely for women. In that sense, even male employees are discriminated against for deviating from the dominant concept of career commitment, namely working full-time five days a week.

6.3 Reflection on the data and methodology

In Chapters 2 and 3 the research aim was to gain more insight into the determinants of regional gender-specific labour market participation. For this purpose an extensive dataset was collected at a municipal level, including information on population composition and the regional opportunity structure. Despite the richness of the data, not all the theoretically significant indicators could be included. Data on the proportion of higher education graduates in a municipality are only available for a limited number of municipalities due to the confidentiality regulations of Statistics Netherlands. Although Statistics Netherlands is in the process of generating new data for this segment, these were not available at the time of writing.

Data for the availability of childcare facilities used in this study was collected for the Ministry of Social Affairs by Deloitte and was only available for the 2002. Theoretically, the presence of childcare facilities is an important indicator of female labour participation. In this study however the relationship between childcare and female labour participation was either insignificant or even negative. Other studies have encountered similar problems with childcare data. Van der Laan and Van der Bout (1990) also found a significant negative relationship between childcare and female participation and excluded childcare from their analysis because the data encompassed several forms of childcare, meaning that their results were therefore difficult to interpret. Van Ham and Buchel (2004) argue that the density of regional childcare is less important than its perceived quality, which is difficult to measure with certainty at a regional scale and of which there is currently no data available. Given the cross-sectional design of the study it is impossible to draw conclusions about the causal relationship between childcare and female participation. Nevertheless, the results with regard to childcare are remarkable, and therefore some
suggestions are offered to explore this relationship between childcare and female participation in greater detail in the following section on future research.

The analyses presented in Chapters 2 and 3 are based on municipalities. The advantage of using smaller units of observation is that they show a much larger variation in employment rates. However, the possibility of spatial dependence has to be taken into account since employment in one municipality could be affected by neighbouring municipalities by spatial spillovers and the possibility of commuting. The spatial dependence was specified in Geoda (Anselin, 2003) using a first order Queen’s contiguity matrix \( W \), where \( w_{ij} = 1 \) if municipalities share a common border or vertex, and equals 0 elsewhere. Lagrange Multipliers indicated the presence of spatial dependence for female employment and the gender employment gap, and suggested that a spatial moving average (SMA) structure on the error process proved the best fit. No significant spatial dependence structure was found for male employment.

The spatial error term \( \lambda \) actually indicated a significant unobserved effect of neighbouring municipalities on female employment and the gender employment gap. Attempts to identify this effect by adding a spatial lag to the explanatory variables or to rewrite the model as a SAR model gave no further insight into the presence of spatial spillover effects. Estimating the model with SEM improved the model fit but resulted in the theoretically unexpected positive significant effect of lagged female unemployment.

In Chapter 4 the dynamics in working hours were analysed for employees who had occupied their jobs for 3 consecutive years. A combination of the Social Statistical Jobs Database (SSB-Jobs) with the Municipal Base Registry (MBR) resulted in a rich dataset that includes job characteristics and personal characteristics. The data unfortunately did not contain information on educational attainment. Data on educational attainment are very difficult to come by in the Netherlands at a smaller scale – for example at individual or municipality levels. The data does however contain information about hourly wage and as the results from the measurement model in Chapter 3 indicated, income is a more important indicator of socioeconomic status than education.
The data also includes information for partners in employment, including same-sex partners. Including same-sex couples in the analysis offered some interesting insights because traditional stereotypes of ‘being male’ and ‘being female’ do not apply to same-sex couples. Results indeed showed some interesting differences between gay couples and heterosexual couples: male gay employees and male gay employees that are part of a couple work fewer hours than heterosexual male employees, whereas lesbian employees work more hours. Lesbian employees are less likely to change their hours and gay male employees are more likely to change their hours. Although same-sex couples do have children, these numbers were too small to include into the analysis.

The analysis of the dynamics in working hours was based on a selection of employees who had occupied their jobs for 3 consecutive years. The reason for this selection was to avoid bias in the interpretation of dynamics in work hours resulting from job transitions (finding a job, switching or losing a job). The dynamics in working hours can be operationalized in several ways, but in essence employees either do not experience any change in working hours or their hours increase or decrease. In this study only changes larger than 1 hour were taken into account. Initially, the methodology for this study involved a multinomial logistic regression in which 3 categories (more hours, fewer hours and the reference category no change) were compared to each other. A multinomial logistic regression does not take account of the selection effect of experiencing a change in working hours and the results thereof are therefore difficult to interpret. A bivariate probit model with sample selection on the other hand does account for this selection effect and since the dependent variable is dichotomous, the interpretation is much more straightforward. This study is nevertheless rather exploratory in nature and given the rich data available there are many alternative strategies to gain further insight into the dynamics of working hours. In the section on future directions some suggestions for future research are presented.

Chapter 5 is an analysis of the gender-specific differences in career advancement. The research design involved a case study approach and the data were obtained from the personnel records of a major financial services company. The advantage of this approach is that it offered an opportunity to explore the differences in career opportunities between male and female managers by including personal
characteristics and firm characteristics – including indicators that at least to a certain extent capture the concept of corporate culture. This company was especially interesting because of its front-runner position in the promotion of gender diversity in a highly competitive masculine financial sector, with the majority of women in the Netherlands working part-time and few women working in top-level management positions.

The findings with respect to employees working full-time over four days (4*9) showed particularly interesting differences between men and women. On the one hand, female managers who work 4*9 are rewarded for showing career commitment by working full-time hours, but on the other hand, male managers working 4*9 are penalized because they are not available five days a week. It would be interesting to explore to what extent these findings also apply to companies in other sectors.

Also of note is the difference between the young female managers and the mid-career and senior female managers. The proportion of young and mid-career female managers is much larger over practically all job levels than the proportion of senior female managers. It would be interesting to explore whether or not the younger generation of female managers are still hindered in their career prospects by the existence of a glass ceiling.

6.4 Future directions and policy implications

The aim of the research presented in the preceding four chapters was to gain insight into the gender-specific regional differences in labour participation. The results that summarized in Section 6.2 provided new insights into the differences between men and women in the Dutch labour market. Based on these research findings this section presents several policy implications to increase labour participation. With the decline of the working-age population due to aging, increasing participation is necessary to maintain current welfare levels. Alternative solutions include increasing the age of retirement – which is currently under discussion by the Dutch government – attracting immigrant workers, or accepting a drop in welfare. Since other countries are also facing the effects of aging, the competition for labour will only increase. The low and even declining average numbers of hours worked, however, also provide an opportunity to moderate the adverse effect of aging. Before the policy implications of this study are discussed, this section will consider suggestions for future research.
In general, studies find that female labour participation is influenced by the presence and age of children, which would theoretically lead to the expectation of a positive significant relationship between the provision of childcare and female participation. The results of the relationship between the provision of childcare facilities and female labour participation at the municipal level, however, did not show the expected link. In Chapter 2 the relationship between childcare and female employment was negative but insignificant and in Chapter 3 the relationship was negatively significant. Van Ham and Büchel (2004) argued that the perceived quality of childcare facilities is more important than the density of their distribution. New data is needed to test this assumption. The effect of the recent shift towards a more demand-driven supply of childcare on female employment also needs to be explored using new data. The research presented in Chapters 2 and 3 is furthermore cross-sectional and therefore no conclusions can be drawn with regard to the causality of the relationship. Panel data is needed to determine whether an increase in the provision of childcare facilities actually results in an increase in female participation. Nevertheless, given the preference of Dutch women to care for their children (Vlasblom and Schipper, 2004), the quality aspect of childcare should also be considered a relevant factor for consideration.

As the results of Chapters 4 and 5 showed, becoming a parent has a significant effect on employment and depending on whether it is a first child or subsequent child, this effect is different for men and for women. Chapter 5 further showed that an increase in the number of children has a positive significant effect on the career mobility of male employees and a negative but insignificant effect on female employees. An important next step would be to explore to what extent changes that occur during the life-course have a lasting effect on the employment opportunities of men and women. Adopting a life-course perspective is possible because the SSB-Jobs and the MBR register all changes during a career and life course. It will however be a complex task to disentangle and interpret the different effects that result from changes that occur within a job and between jobs.

Finally, as mentioned previously, the dataset that was used to analyse differences in the career advancement of male and female managers only encompassed information from one firm in a particular sector. It would be interesting to explore to what extent these findings can be generalized. Given that the data
contained confidential information such as income and appraisal scores, it could be
difficult to collect comparable data from other firms.

An increase in labour-market participation is a possible solution to counteract the
adverse effects of aging. At the regional level, the results presented in Chapter 2
indicated that municipalities with a larger proportion of women in the age group just
beyond the typical reproduction period, with a higher degree of urbanization and
with a larger proportion of unemployed men show higher female participation.
Chapter 3 added that municipalities with a larger proportion of women with higher
socioeconomic status and municipalities with more female-dominated sectors
likewise showed higher female participation. A larger proportion of dependent
children and elderly people conversely has a negative significant effect on female
participation and a larger proportion of female unemployment. No positive
significant effect for the provision of childcare facilities on female employment rates
was found.

The favourable opportunity structures available in the more urban
municipalities was found to have a positive effect on female participation, which
implies that creating more supporting services to decrease the burden of combining
paid work with other unpaid care and household tasks will probably have a positive
effect on female participation. The positive effect of female-dominated sectors – i.e.
jobs in healthcare, education and government – showed that occupational segregation
continues to be an important determinant in women’s employment opportunities.
Women today are increasingly better educated, but more action to interest young
women in a broader range of occupations could significantly increase their
employment opportunities. Furthermore, the negative significant effect of the
dependency ratio and the positive significant effect of the proportion of women in the
immediately post-reproductive age group strongly suggest that providing good
quality and affordable care facilities for children and the elderly will decrease the care
burden that continues to influence female participation.

At the individual level, results indicate that family responsibilities decrease the
working hours of women, whereas for men the effect can be both positive and
negative. Furthermore, the regional opportunity structure of highly urban areas is
positively significant for the working hours of female employees and negatively
significant for male employees. Only women working in minor part-time jobs are more likely to increase their hours, which implies that a barrier exists for women working part-time to increase their working hours. Women whose youngest children have reached secondary school age are also more likely to increase their hours. This finding supports the idea that decreasing the care-giving burden by offering good quality and affordable supporting services will most likely increase the working hours of female employees.

Including gay employees in the analysis presented in Chapter 4 and exploring employees who opted to work 4*9 in Chapter 5 provided some interesting new insights into gender stereotypes and the influence of corporate culture. Although the findings of Chapter 5 cannot be generalized, they strongly suggest that male and female employees are treated substantially differently. Females who work nine hours in four days are considered career committed, whereas the same behaviour for male employees is perceived as deviating from the norm of working full-time five days a week and therefore as being less career committed.

The persisting gender stereotypes and the strong preference of Dutch women to care for their children appear deeply embedded in Dutch culture. It is an important task for the government to create a policy framework in which both men and women are stimulated to invest in knowledge and to utilize their capacities to the fullest. As mentioned in the introduction, the European Commission has already developed a strategy for gender equality, the main purpose of which is to improve the utilization of female capacities (EU, 2010). It is now up to the Dutch government to develop the policies and regulations required to translate this gender equality strategy into an everyday reality.

References


