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# How women have fared in the labour market with China's rise as a global economic power

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**Abstract**

Under a centrally planned system, China made significant achievements in gender equality. Half a century later, China has joined the ranks of upper-middle-income countries, and decades of rapid growth have accompanied major structural changes in the economy. We assess the evolution of women's economic opportunities during the period, focusing on labour force participation, occupational segregation, leadership in business, and the gender wage gap, as well as informal sector employment and migration. We undertake a review of existing research and conduct new empirical analysis using a combination of data sources, including four waves of Chinese population census data through 2010, and province-level migration data. We focus especially on migrant women, a group typically excluded from similar studies. Although investments in human capital have advanced prospects for better-paid jobs for women, we find that rapid economic growth has not alleviated discrimination against women rooted in cultural and social norms and that the implementation of existing laws designed to protect and support women needs to improve.

**KEYWORDS**

Asia, China, economics, labour market, migration, women

# 1 | INTRODUCTION

Mao Zedong's famous phrase, "Chinese women hold up half of the sky," symbolizes an official commitment to gender equality dating back several decades. Indeed, in the early 1980s, when China was among one of the poorest countries in the world, its achievements in female human development outcome indicators and gender equality surpassed those in many middle-income countries (Li, Fraumeni, Kui, & Wang, 2009; Wang, 2014).

In the early 1980s, female labour force participation in China exceeded that in many developed countries (84% versus 61% in the Organisation for Economic Co-operation and Development) and the gender wage gap was much smaller (16% to 22% compared with 36% to 38% in the United States at that time). There was also close to gender parity in the share of women and men holding professional jobs (4% versus 6%, respectively) and in completing high school (10% versus 11% of the female and male population, respectively).

These successes are largely attributable to strong government commitments to promoting gender equality. The policy instruments used to promote women's economic and social status ranged from constitutional and legislative reforms, to ideological and political movements, and to the centrally controlled system in employment and remuneration (Li, 2000; Wu, 2004). A 1954 constitutional amendment declared that women have equal rights with men in all areas of political, economic, cultural, social, and domestic life. Many associated laws were promulgated, including laws allowing women to obtain a divorce, own property, pursue a formal education, and receive equal pay for equal work (Croll, 1983). The policy of encouraging women's contributions in the workforce was part of overall national development plans during the period.

Public sector domination of the economy played a key role in implementing gender equality policies when China was a centrally controlled system. The principle of equal pay for equal work was enforced through the centrally regulated wage system that applied to all state-owned and collective work units (Meng, 2000). The extended provision of social services—such as on-site childcare, nursing rooms for breastfeeding, and paid maternity leave—through work units played an important part in expanding women's participation in the labour force (Liu, Li, & Yang, 2014). Under the centrally planned system, the social costs of reproductive responsibilities were shared among women, employers, and the state. It is, however, important to underline that implementation of these various measures to promote gender parity was largely limited to urban workers. Most women working in rural areas as well as in urban informal sectors were disadvantaged in terms of access to basic social services and equal pay (Burnett, 2010).

Half a century later, China has joined the ranks of upper-middle-income countries, and decades of rapid growth have accompanied major structural changes in the economy. Yet, as we outline below, a number of China's earlier achievements in gender equality have gradually been eroded. Female labour force participation rates have fallen to levels that are low by international standards, gender gaps in pay have widened, gender discrimination in the labour market is widespread, and there is evidence of a worsening bias in views about women's right to work and leadership in the workplace.

Assessing the evolution of women's well-being and gender equality in China is important in itself, not least because of the size of the country. Such understanding can also provide useful lessons for thinking about how to sustain gender equality because many countries, inspired by China's economic success, are seeking to pursue similar types of growth-focused development strategies.

This article builds upon a growing research base about women in the labour market in China from a broad range of disciplines, including economics, sociology, and legal and

institutional analysis, to review how economic and socio-demographic changes, as well as major legal and institutional reforms, have affected women's economic opportunities in China. We also seek to assess the new employment opportunities brought about by these major changes, identify the policies and measures that appear to have been effective in improving women's economic opportunities in China, and note areas of weakness.

We add to the literature on China's transition in several key respects. First, our review provides a more comprehensive picture of women's economic opportunities, going beyond the specific dimensions of wages, and childcare, for example. Second, we undertake new analysis, using different data sources—including four waves of population census data (1990, 1995, 2000 and 2010), province-level migration data, and International Labour Organization (ILO) data sources—to assess key trends disaggregated by gender, drawing comparisons to other countries. Third, we bring a focus on female migrant workers, who account for over half of the urban labour force, and undertake new analysis of trends in occupational concentration.

Section 2 outlines the data and methods used and highlights where caution is needed. Section 3 summarizes selected highlights of China's economic and social transition. Section 4 presents key findings of the evolution in women's economic opportunities in the context of China's structural transformation. We review overall trends as well as new results which provide insights into how China's integration into global trade has impacted occupational segregation and gender wage gap. Section 5 focuses on female migrant workers. Section 6 discusses key insights and concludes.

## 2 | A NOTE ON DATA AND METHODS, AND A CAUTION

Existing research reviewed below uses a range of data sources, from aggregate-level official data sources at the province level to household/firm-level survey data. The latter include China Health and Nutrition Surveys (CHNS), the Investment Climate Survey undertaken in China by the World Bank, the National Migrant Dynamics Monitoring Survey, Chinese Household Income Project (CHIP) survey data, and China urban labour force surveys. This wide range of data sources provides useful insights, although there are differences in samples and measures which lead to somewhat different trends and patterns, as highlighted below.

Our own analysis of key labour market outcomes, including trends in labour force participation and occupation, utilizes official sources released by the National Bureau of Statistics of China (NBSC) and the ILO, as summarized in Table 1. The ILO seeks to ensure consistency to

**TABLE 1** Summary of official data sources

| Data source | Year |
|---|---|
| China Population Census | 1990, 1995, 2000, and 2010 |
| CSYB | 1982–2016 |
| Provincial statistical yearbooks (Guangdong and Fujian) | 1990–2012 |
| China Official Labor Statistics | 2000–2014 |
| China Urban Labor Force Survey | 2010, 2016 |
| ILO data | 1990–2013 |

*Note.* The census for 1995 and 2010 is the mini census representing 1% of the total population.
Abbreviations: CSYB, China Statistical Yearbooks; ILO, International Labour Organization.

facilitate cross-country comparisons. The official labour statistics published in the China Statistical Yearbooks (CSYB) come from three sources: (a) labour force surveys, which before 2014 only covered registered households, with migrant workers largely uncovered;[1] (b) the so-called labour reporting system, which generates official indicators on employment and wages, for the state-owned and private sectors; and (c) other government data. Every enterprise employing more than 100 people reports wage information to the NBSC. Among enterprises employing between 20 and 99 people, 10% of enterprises are sampled. There is no official statistical coverage of employment in small-sized enterprises nor of employment in foreign firms, which limits our understanding of how women have fared in these important segments of private sector employment.

Caution is needed in interpreting China's official statistics. Cai, Du, and Wang (2013) reviewed the reliability of China's labour statistics in the context of large-scale structural changes, flagging the risk of biased reporting. There are challenges related to accurately measuring labour market outcomes, including participation rate and gender gaps in the context of rapid economic restructuring which could affect men and women differently in the labour market. The first relates to migrants, comprising about 36% of the total workforce.[2] Labour force participation rates have been traditionally based on surveys limited to registered households, but the exclusion of migrant workers in these surveys can underestimate employment estimates. NBSC expanded the sample coverage in 2014 to include migrant workers who had lived in cities for over six months but the data has not yet been released to researchers. A second challenge for analysis over time is that administrative boundaries have changed. The reclassification of previously rural households as urban could lower measured labour force participation rates in urban areas, because those working informally in the peri-urban areas may not be recorded in the official statistics. Third, informal sector workers are not part of the current labour reporting system nor are they in the labour force surveys. Recent estimates suggest that informal employment accounts for about 30% of urban employment in China (Du, Cai, & Qu, 2013), ranging as high as 64% for women in the six-city survey.

The next sections present key findings of the evolution of women's economic opportunities since 1980 when China started its economic transition from a centrally planned economy to a market-oriented system, beginning with a review of the major structural transformations and high rates of economic growth experienced by China in recent decades.

## 3 | SELECTED HIGHLIGHTS OF CHINA'S ECONOMIC AND SOCIAL TRANSITION

### 3.1 | China's rapid economic and social transition

The speed and scope of change in China are unprecedented in modern history (Zhu, 2012). The transition to a market-based system together with wide-ranging policy reforms designed to integrate China into the global economy were the driving forces underpinning structural changes and rapid growth (World Bank, 2013).

[1]At the time of writing, the authors were unable to access post 2014 data.

[2]According to the NBSC annual survey of migrant workers, there were 277.5 million rural laborers working in China's cities in 2015, about 36 of China's total workforce.

Since the early 2000s, faced with rising wages and currency appreciation, as well as growing international competition, China's manufacturing has upgraded from mainly low-technology, labour-intensive activities to more technology-intensive industries. According to the 2015 CSYB, by 2014, technology-intensive industries and the service sector accounted for about 33% and 46% of total output, respectively.

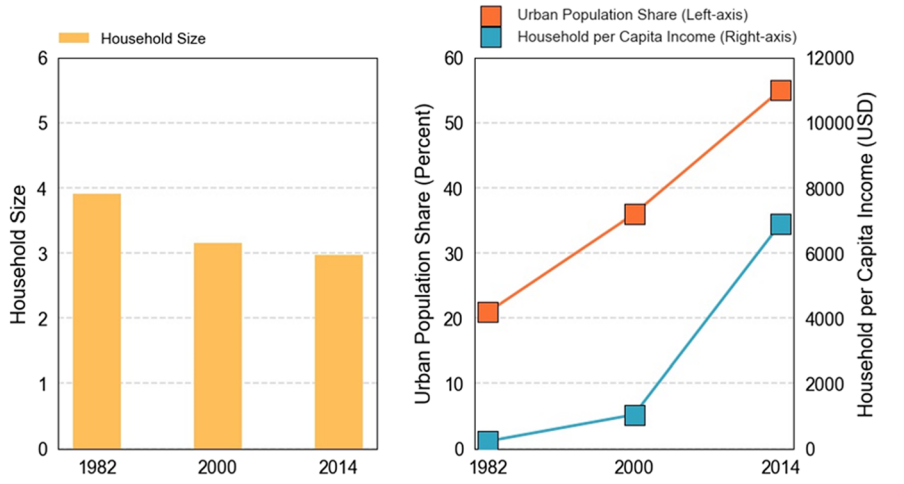
Moving up the global production value chain, together with advances in digital technology, fuelled China's demand for information and communications technology (ICT), financial services, and e-commerce. China's service sector has also expanded in health care and home-based care services, especially with the growing middle-class and an ageing population.

Over the same period, state-sector employment shrank significantly. In the early 1980s, more than four out of five urban employees were engaged in state-owned enterprises (SOEs) compared with fewer than one in five in 2017 (CSYB, 2018).

The economic restructuring has been accompanied by broader economic, demographic, and social changes. The achievements in moving to the ranks of the upper-middle-income group with GDP per capita rising over 17-fold and the rapid declines in the poverty headcount are well known and summarized in Figure 1.

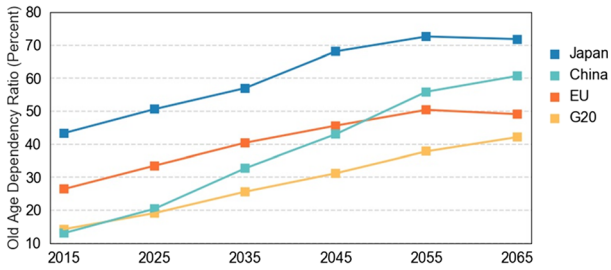
Rural-urban migration, on an unprecedented scale, has been a major feature of this transformation (World Bank and Development Research Center of the China's State Council, 2014). By 2015, more than half of the Chinese population (56%) lived in urban areas, compared with about one in five in 1982. According to official data, in 2015, about 247 million rural migrants lived in urban areas and the share of migrant population in big cities (that is, tier-one cities with populations over 15 million and tier-two cities with 3–15 million people) rose to 30%–40%. Female migrant workers account for over half of the total migrant population (CSYB, 2016).

Yet, rapid growth also made China one of the world's least equal countries. In 2014, the *Financial Times* reported that the richest 1% of households own a third of the country's wealth. According to the World Bank, in 2012, China's Gini coefficient was 0.49, much higher than both




Note: Per capita disposable income is from CSYBs (1983, 2001, and 2015), which present both national and province-level estimates of average household income using annual nationally representative household surveys.

**FIGURE 1** Rising incomes and urbanization, alongside falling family size




Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).

**FIGURE 2** Projected and comparative trends in China's old age dependency ratio, 2015–2065

the United States, at 0.41, and Germany, at 0.3, for example.[3] Among the 25 largest countries in the world, only South Africa and Brazil have worse measured levels on inequality. Zhuang and Li (2018) identify four major drivers of income inequality in China, namely rising returns to education and the associated skill premium, rising returns to capital, spatial disparities, and wealth inequality. Although spatial inequality as well as within rural inequality are on declining trends, inequality within urban areas has increased sharply. According to International Monetary Fund reports, the measured contribution of within-urban inequality in total income inequality rose from 25% to 45% between 2005 and 2014 (Jain-Chandra et al., 2017). This has been traced back to inequalities between local and migrant populations. The World Bank (2013) attributed China's high inequality to disparities between local and migrant population in education attainment, access to key public services, and social protection. We return to the topic of urban migrants below.

The period of economic transition since 1980 has also been characterized by falling fertility rates and family size, and a rapidly ageing population, accelerated by the one-child policy introduced in the late 1970s. The fertility rate almost halved, from 2.7 to 1.4 between 1980 and 2014. The traditional household structure, with multiple generations living under one roof, is being replaced by nuclear families. Average household size fell from about four to three people between 1982 and 2014, as shown in Figure 1. China's population is now rapidly ageing, and the United Nations projects that the elderly share will surpass all economies (except Japan) by about 2050 (Figure 2). Labour shortages in care services are already looming large, with only 1.1 long-term care workers for every 100 persons over 65 years (Scheil-Adlung, 2015).

## 3.2 | Sectoral shifts in employment

In this context of economic and social change, we would expect major changes in economic opportunities, which was indeed the case in China. The broad trends in employment are summarized in Table 2, showing that the private sector's role boomed, the urban share of jobs rose from one-third in 2000 to over half in 2014, the service sector expanded, and agriculture shrank. Unfortunately, this sectoral data is not gender disaggregated.[4]

Trends emerging from the 2000 census and the 2014 labour force survey highlight the expansion of ICT, albeit from a low base. The modern service sector has the highest wages relative to the national average, ranging from 50% higher in research and development to 80%

[3]http://data.worldbank.org/indicator/SI.POV.GINI

[4]Census data is gender disaggregated, but the latest year is 2010. Unfortunately, there is no official statistical coverage of employment in small-sized enterprises or employment in foreign firms.

**TABLE 2** Changes in employment shares, 2000–2014 (percentage of total)

| | 2000 | 2014 |
|---|---|---|
| Urban | 32 | 51 |
| Rural | 68 | 49 |
| Agriculture | 50 | 34 |
| Industry | 22 | 30 |
| Services | 28 | 36 |
| Within urban areas | | |
| State-owned and collective | 45 | 17 |
| Private enterprises | 15 | 50 |
| Self-employed | 10 | 16 |

Source: CSYB 2001 and 2015

higher in ICT and 90% higher in financial services. Wages for workers providing services to households are 30% below the national average, whereas wages in health-care services are about 10% above. Interestingly, the average manufacturing wage was 10% below the national average in 2014, possibly due to manufacturing jobs being mainly on assembly lines and filled by migrants.

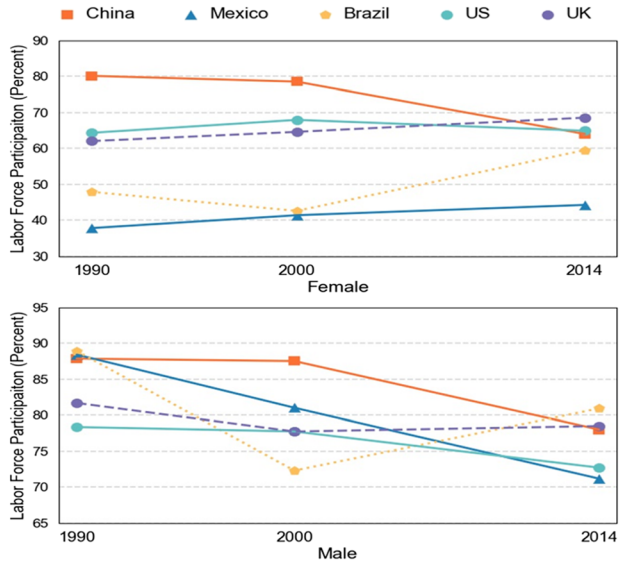
E-commerce is transforming China's marketplace. In 2015, online retail sales reached $647 billion, amounting to almost 6% of GDP according to official statistics. This is almost double the size of the $342 billion in e-retail sales in the United States that same year, below 2% of GDP (Barefoot, Curtis, Jolliff, Nicholson, & Omohundro, 2018). Alibaba is now the world's biggest e-commerce market platform, and according its own estimates, TaoBao has created 2.67 million jobs directly and indirectly through their collaboration with logistics companies (AliResearch, 2017).

Three decades of structural change have thus expanded private sector employment and shifted employment opportunities to urban services, both technology-based, such as ICT, e-commerce, and financial services, and in traditional services such as home care.

Despite the earlier government emphasis on gender equality, evidence about Chinese social norms about women's work and the perceived value of women and girls more broadly suggests that China faces major challenges in addressing gender inequality. The 2014 World Values Survey asked whether people feel that "men have more right to a job when work is scarce." Among G20 countries, China ranked third worst (only below India and Turkey) in the share agreeing with the proposition.

A key indicator of adverse gender norms is son bias. In an influential 1990 article, Amartya Sen examined this phenomenon and underlined that "these numbers tell us, quietly, a terrible story of inequality and neglect leading to the excess mortality of women." Women and girls are missing because of an entrenched preference for sons over daughters in some communities, leading to prenatal sex selection (Das Gupta et al., 2003). China is among the worst countries globally in terms of son bias, with 117 boys born for every 100 girls in 2014. The severely skewed sex ratio at birth, which worsened with the one-child policy, indicates deep-rooted discrimination against women and girls despite decades of government efforts to promote gender equality in China.

This helps to set the scene for examining the evolution of women's economic opportunities over time, relative to men, and in comparison with selected countries.




Source: ILO Key Indicators of the Labor Market, http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/WCMS_422090/lang--en/index.htm.

**FIGURE 3** Trends in labour force participation, China and selected comparators, 1990–2014, by sex

## 4 | HOW HAVE WOMEN'S ECONOMIC OPPORTUNITIES EVOLVED SINCE 1980?

### 4.1 | Labour force participation

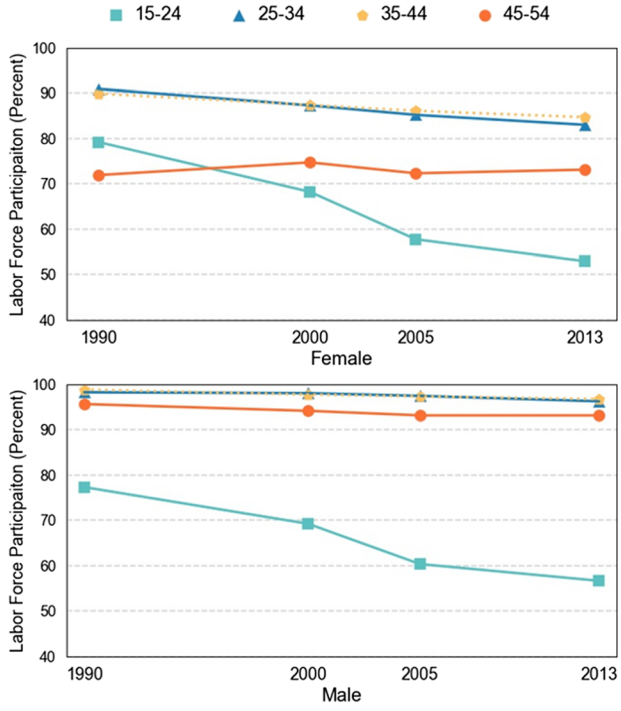
There has been a marked decline in overall labour force participation rates during the economic transition, falling from 79% to 64% for women and 88% to 78% for men between 1990 and 2014 based on the ILO's Key Indicators of the Labour Market as shown in Figure 3. Although these official trends should be interpreted in light of the data caveats noted above, in particular the exclusion of migrant workers and informal work, the extent of the decline clearly indicates a substantial fall in participation among registered urban residents in formal sector employment.

On the one hand, these declines appear to be surprising in the midst of rapid growth and stand in contrast to Brazil and Mexico, for example, both of which saw steady increases in women's economic opportunities over the same period.

On the other hand, falling female labour force participation as income levels rise is not an unusual phenomenon—the so-called U-shaped curve is a well-established empirical regularity (Goldin, 1994). This has been explained in terms of the preference of women to withdraw from arduous agricultural and other work as subsistence needs are increasingly met from other sources of household income. India has also experienced major declines in women's participation in paid work in the context of economic growth (Dasgupta, Matsumoto, & Xia, 2015).

However, declining female labour force participation could be problematic, especially with the rapid ageing of the Chinese population. The rates have fallen to levels in the United Kingdom and United States, countries where policy makers are trying to boost female participation.

Differences in participation rates across age cohorts in China provide some insights. Figure 4 shows the largest reductions in labour force participation occurred among the younger




Source: ILO Key Indicators of the Labor Market, http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/WCMS_422090/lang--en/index.htm.

**FIGURE 4** Trends in labour force participation by age cohort and sex, 1990–2013

cohort, aged 15 to 25 years, falling by some 20 and 26 percentage points for men and women, respectively. This likely reflects rising educational achievements, because mean years of schooling has almost doubled in 25 years, rising from 3.9 in 1980 to 7.5 in 2014, although data on the share of youth not in education, employment, or training is unfortunately not available for China. We do know that the share of tertiary educated workers rose from 2.9% and 1.6% for men and women, respectively, in 1980 to about 16% for both in 2014 (CSYB, 2015).

Other data sources suggest major declines in participation among women of prime childbearing age (25–34), whereas male participation in the same age cohort remained high, around 97%. Analysis of several waves of the CHNS—which is less frequent and extensive than the labour force survey but has the advantage of capturing women's fertility as well as labour market status[5]—found that labour force participation rates for mothers with children under 2 years of age fell from 89% in 1990 to 56% in 2005 and for women with children under 6 years from 91% to 77% over the same period Jia and Dong (2012). A major factor appears to have been the diminution of childcare provision that was associated with SOEs relinquishing social service responsibilities, combined with China's long-standing regulations

[5]However, this survey covers only 16 out of 29 provinces and is annual rather than monthly, unlike the labour force statistics.

[6]United Nations Secretary General's High Level Panel on Women's Economic Empowerment, First Report, 2016.

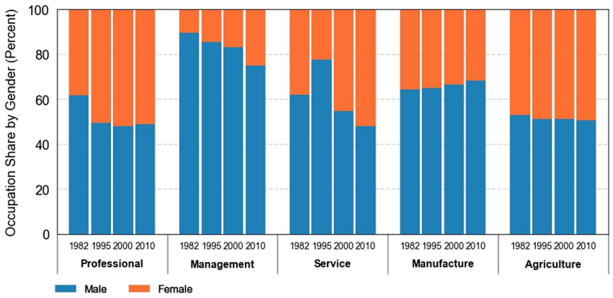
[7]See UN Secretary General 2016; and ILO Wage report 2016.

prohibiting the admission of children under two into public nurseries. The only options for working mothers are either care at home by parents or grandparents, or exiting the labour market because social norms in China, as in much of the world, assign the responsibility for care to mothers, not fathers.

Interestingly, as China transitioned into a private sector-dominated economy, the female share of private employment fell significantly, from 43% to 34%, whereas the female share in public sector employment increased by several percentage points. What drove these shifts is not entirely clear. It could reflect gender discrimination in firm recruitment that has been widely reported in the media. The public sector does tend to be a larger employer of women globally. In Central and Eastern Europe, for example, one in three working women are employed by the government, and in Norway, the public sector employs almost half of all women in paid wage and salary jobs. The relative attractiveness of the public sector for women may be traced to systematically lower gender pay gaps and the possibility of greater flexibility at work.[6]

## 4.2 | Occupational segregation

Around the world, women and men tend to be concentrated into specific occupations, with women more likely engaged in lower paid jobs.[7] We undertook new analysis of four waves of China's census data (1982, 1990, 2000, and 2010) to examine the extent to which this picture is true of China using the census data which provides detailed descriptions of 65 occupations and jobs (Table A1). We regroup the 65 occupations into five broad occupation jobs by sector,




Source: China population census 1982, 1995, 2000, and 2010.

**FIGURE 5** Trends in occupational shares by gender, 1982–2010

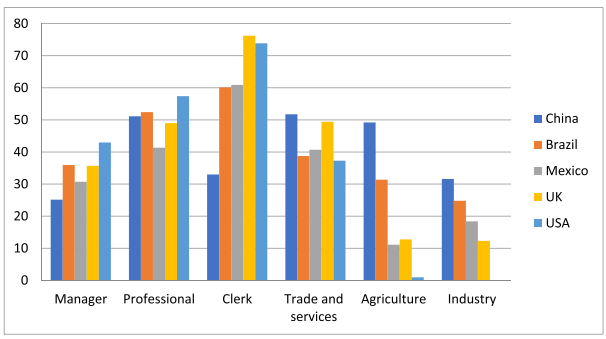



**FIGURE 6** Women's share in total employment of selected occupations, 2010, China and selected comparators (%)

**TABLE 3** Occupation concentration ratio by gender, China 1982–2010

| | 1982 | 1995 | 2000 | 2010 |
|---|---|---|---|---|
| Female workers | | | | |
| Professional and skilled | 0.88 | 1.14 | 1.14 | 1.13 |
| Management positions | 0.24 | 0.33 | 0.37 | 0.56 |
| Clerks and service related | 0.87 | 0.51 | 0.99 | 1.14 |
| Low-skilled manufacturing | 0.81 | 0.79 | 0.74 | 0.70 |
| Low-skilled agriculture | 1.08 | 1.10 | 1.07 | 1.09 |
| Male workers | | | | |
| Professional and skilled | 1.09 | 0.89 | 0.88 | 0.89 |
| Management positions | 1.59 | 1.53 | 1.52 | 1.37 |
| Clerks and service related | 1.10 | 1.39 | 1.01 | 0.88 |
| Low-skilled manufacturing | 1.14 | 1.17 | 1.22 | 1.25 |
| Low-skilled agriculture | 0.94 | 0.92 | 0.94 | 0.93 |

Note: the female (male) concentration ratio (CR) for specific occupation is the ratio of female share in specific occupation to female share in the labour force. CR > 1 indicates that women are disproportionally concentrated in the occupation.
Source: Author estimates based on 1982, 1995, 2000 and 2010 Chinese census data.

including profession and skilled jobs,[8] management jobs, services sector related jobs,[9] manufacturing, and agricultural sectors.

Figure 5 shows trends in occupational shares by gender for four points in time over three decades. Several points emerge, revealing both continuity and change as follows:

- Women's share of agricultural employment has hovered around 50%; likewise, the share in manufacturing has remained around one-third.
- Although women's share of management positions rose significantly, men were still three out of four managers in 2010 and Chinese women's share in management is much lower than, for example, both Brazil (36%) and Mexico (31%) according to ILO data.[10]
- By 2010, half of professional and skilled occupations were held by women, comparable with developed economies such as the United States and United Kingdom (Figure 6).

While the service sector now dominates women's employment, it covers a diverse set of activities, from well-paid modern jobs to low-skilled traditional services. The service sector is now also the largest source of employment for female workers across the globe, about 56% in 2015 (Klugman & Tyson, 2016).

To help assess how women are represented across different occupations, we constructed an occupational concentration ratio (OCR) by gender (Table 3). This is estimated as the ratio of the female share in a specific occupation to the female share in the labour force. An OCR above

[8]Management includes officials of Communist Party, legislators, heads of public institutions, and managing directors of enterprises. Professional and skilled positions cover science and engineering; agricultural technical staff; health; economic, business, and finance; legal, social, and cultural, and teaching.

[9]For cross-country comparison Figure 6 separates services-related jobs into clerk and trade and services, to enable comparability with other countries.

[10]https://www.ilo.org/wcmsp5/groups/public/—dgreports/—dcomm/—publ/documents/publication/wcms:702188.pdf

one indicates that women are disproportionately concentrated in the occupation. The trends in estimated OCRs over time show that China's economic transition has been associated with women becoming more concentrated in professional and skilled jobs. Female representation in management jobs has increased over time, but is not yet at par. These overall trends may be associated with China's success in achieving gender parity in education as well as increasing overall demand for professional and management skills.

Although China's transition has increased female representation in professional and management jobs, Figure 6 shows that their shares, in particular in management positions, remain much lower than such emerging economies as Brazil and Mexico, and developed countries such as the United Kingdom and United States.

## 4.3 | Female leadership in business

China's fast-growing private sector has opened up new opportunities, from owning a small businesses to becoming a manager or executive in a major company. According to a recent government white paper (State Council Information Office PRC, 2015), women account for about one in four entrepreneurs and the majority (55%) of new internet businesses in 2013 were founded by women. It is also notable that over half of the 16 million businesses registered on TaoBao are female-owned, and more than a quarter of senior management positions in the Alibaba group are held by women.

What about female leadership in large companies? Data from China's publicly listed companies suggests some improvements, with the share of female directors rising from 9% in 1999 to 12% in 2010 (Zhang, 2012). However, this is still below the 2010 average of around 16% among Fortune 500 companies. According to corporate records examined by the *New York Times*, in 2014, among China's top 300 companies, the CSI-300, more than 40% (126) had no women on their boards. Interestingly, however, women's participation on boards is higher for private enterprises (14%) than SOEs (10%).

## 4.4 | Gender wage gaps

How gender gaps in earnings have evolved in China has been subject to several investigations, mainly focused on wage and salary workers. Liu et al. (2014) review the literature, which reveals a widening gender wage gap over time, from around 16% to 20% in 1980 to around 30% to 40% in 2010 for full-time salary workers.[11] Several econometric studies have examined gender wage gaps controlling for education, marital status, and type of jobs, with varying estimates, depending on data sources and method. Alongside evidence of a widening gender pay gap—which is most pronounced among working mothers—gender gaps are largest in private firms and less so in public sector work units (Appleton, Song, & Xia, 2013; Chen, Ge, Lai, & Wan, 2013; Jia & Dong, 2011; Liu et al., 2014). The China Family Panel Studies find that gender wage gaps, measured by annual wage income, exist for all occupation groups except for clerks, and are largest in management (23%), followed by professional occupations (19%; Liu et al., 2014).

Decomposition analysis of the wage gaps suggests a large element unexplained by observed differences in education, experience, type of work, and so on. This is likely associated with gender discrimination that, although illegal, is reportedly widespread. For example, the analysis

[11]These studies focused on wage incomes, excluding farming or other self-employed activities.

of Life Histories and Social Change in Contemporary China by Xiu and Gunderson (2013) found that approximately two-thirds of the gender wage gap was due to such factors as females being paid less for the same wage-determining characteristics, such as education and occupation. This is corroborated by a survey in Jiangsu (Fincher, 2014) in which 80% of female respondents felt they had experienced discrimination in recruitment and that employers had been explicit in their preference for men, even including statements in their advertisements such as "male graduates only." These discriminatory practices have been reported for a wide range of employers.

Zhang and Hannum (2015) compare the gender pay gap among women of different marital status. It is striking that the ratio of earnings of working mothers to working fathers fell from 0.8 from 1989 to 0.64 in 2009—whereas the earnings ratio of single women to single men rose from 0.94 to about 1.01 over the same period. Controlling for other observable factors, women with children earned, on average, about 20% less than single women (Jia & Dong, 2012), suggesting a significant "motherhood penalty." This is consistent with findings on the motherhood penalty elsewhere (Grimshaw & Rubery, 2015).

Several studies suggest that gender wage gaps may be smaller in the public sector. Analysis of firm-level data found that employers' discrimination against women was not a significant source of the gender wage gap in Chinese SOEs: the relative wage of unskilled female workers to male workers was higher than their relative productivity, possibly a legacy of the centrally controlled wage system (Dong & Zhang, 2009). Other studies based on labour force survey data show that the gender gap is smallest in government and public institutions, around 15% to 17% compared with 27% to 30% in private firms (He & Wu, 2014). On the other hand, Chen (2011) analysed the CHNS between 1989 and 2009 and found that the gender wage gap widened more sharply in SOEs. After controlling for education, occupation, work experience, and so on, the gender pay gap increased in both SOEs (from 12% to 21%) and the private sector (from 22% to 26%).

These studies suggest that the transition from a centrally control system to a market-oriented economy dominated by private sector employment could be a major driver of the worsening gender gap in earnings, alongside changes in the nature of SOE employment. The empirical evidence on the impact of occupational segregation on the gender wage gap is less conclusive.

**TABLE 4** Average time use of Chinese (hour/week), by gender (2008)

| | Total | | Urban | | Rural | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Paid work | 42 | 30.7 | 33 | 25 | 51.7 | 37.3 |
| Unpaid work | 9.6 | 26.1 | 11.7 | 26 | 7.2 | 26 |
| Housework | 8.1 | 22.3 | 10 | 22.5 | 6.1 | 21.9 |
| Childcare | 1.3 | 3.6 | 1.5 | 3.2 | 1 | 4 |
| Adult care | 0.2 | 0.2 | 0.2 | 0.3 | 0.1 | 0.1 |
| Total hours | 51.6 | 56.8 | 44.7 | 51 | 58.9 | 63.3 |
| Percentage gap (%) | | 33 | | 28.6 | | 37.6 |

*Note.* Percentage gap (%) is the gender gap in unpaid work for total working hours per week
Source: Dong & An, 2012, and author estimates.

## 4.5 | Unpaid work

The disproportionate burden of unpaid work on women, which has been documented globally (see the 2015 Human Development Report), is also heavy in China where the first large-scale time use survey revealed gendered patterns of time allocation over three activities: paid work, unpaid work, and nonwork activity (self-care and leisure; Dong & An, 2012). Table 4 shows that urban women work much longer hours (about 51 hours per week, compared with 45 for men), but much less in paid work and more in unpaid work compared with men, with over two-thirds of women's time devoted to unpaid work, in contrast to only 20% of men's.

Cook and Dong (2014) suggest that the privatization and commercialization of childcare services have added to the domestic responsibilities on women, limiting their occupational choices and time autonomy. Population ageing and migration, alongside the growing emphasis in policy circles on Confucian values and family responsibility, have exacerbated the dilemma for married women who attempt to fulfill multiple responsibilities as income earners and caregivers. Women from disadvantaged socioeconomic groups are the most affected. Cook and Dong (2014) show that women who have been disproportionately pushed out of formal employment opportunities are more likely to drop out of the labour market than men and are concentrated in low-paid, irregular forms of informal employment.

## 4.6 | Informal sector employment

The informal sector is an important source of livelihoods for women and men worldwide. Informal employment is largely in services, but also includes manufacturing and even public services. The literature on informal employment conventionally distinguishes between two kinds of informal employment: those who either are employees in the formal sector but without formal contracts and those in casual employment in the informal sector.

In China, a growing number of urban women work in the informal sector where jobs are typically part-time, low-paid, and have no labour contract (no social security coverage; Liang, Appleton, & Song, 2016). Using the 2007 and 2013 waves of the CHIP, which covers both local and migrant households in urban areas, Ma and Deng (2016) find a dramatic switch toward informality. Over the period, the share working as formal employees fell from 65% to 43% whereas the share of self-employed rose from 24% to 42%, and of own-account workers from 11% to 15%. Although women were only 43% of the survey sample of workers, they accounted for 49% of all casual workers.

Using the 2010 China Urban Labour Survey—which was designed to cover informal sector employment in Guangzhou, Shanghai, Fuzhou, Wuhan, Shenyang, and Xian—Park, Wu, and Du (2012) estimated that informal employment ranges from 25% to 31%, depending on the definition used.[12]

The six-city survey data also shows that informal wages average only about two-thirds of formal wages for local residents and that informal workers tend to work much longer hours—nearly 52 hours per week compared with 43 hours, for formal sector workers. Among women working in the informal sector, 39% were classified as self-employed, 8% as

[12]Park et al. use two definitions to classify informal sector workers in China. First, those who do not receive mandated social insurance benefits (pension, health, and unemployment); second, unpaid family workers; self-employed workers; informal employees in the formal sector; informal employees in the informal sector; and employers in the informal sector (with seven employees or less).

**TABLE 5** Education and skills by gender and by residence status: 2010–2016

| | 2010 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | Rural migrants | | Urban workers | | Rural migrants | | Urban workers | |
| Education level | Male | Female | Male | Female | Male | Female | Male | Female |
| Primary and below | 10.0 | 18.0 | 2.4 | 3.8 | 8.9 | 20.8 | 1.8 | 3.0 |
| Junior high school | 52.2 | 52.3 | 24.0 | 26.3 | 44.2 | 42.1 | 18.9 | 20.3 |
| Senior high/technical school | 28.0 | 22.0 | 39.5 | 39.7 | 25.6 | 18.7 | 32.3 | 34.4 |
| College and above | 9.8 | 7.8 | 34.1 | 30.2 | 21.3 | 18.3 | 47.1 | 42.3 |
| Skills | | | | | | | | |
| Can use computer (%) | | | | | 50.5 | 44.0 | 56.6 | 56.7 |
| Can use word software (%) | | | | | 52.8 | 56.4 | 62.6 | 67.3 |

Source: The above data is estimated using the 2010 and 2016 urban labour force survey for six cities, including Shanghai, Guangzhou, Fuzhou, Shenyang, Xian, and Wuhan. The 2010 survey did not collect information on skills.

contributing family workers, 11% as employees in informal sector jobs, 40% as employees in formal sector jobs (but without a formal contract or social benefits), and 0.5% were domestic workers employed by households. According to the ILO, there are about 20 million home-care workers in China.

The overall trends in women's labour market outcomes over the past four decades present a mixed picture. Falling labour force participation among women of childbearing age and a widening gender wage gap suggest some reversals of earlier achievements. However, the rapid structural changes and trade integration have also generated opportunities for skilled and management jobs where women are relatively well-represented, although less so than in some other emerging economies. Female leadership in business has improved slightly over time, but women remain significantly underrepresented in management among large companies, compared, for example, with the European Union. Women in China still bear most of the burden of unpaid work, which can constrain their options outside the home, especially for mothers, in the absence of affordable childcare. We now turn to focus on female migrant workers.

## 5 | HOW HAVE FEMALE MIGRANT WORKERS FARED IN THE LABOUR MARKET?

About one-third of China's internal migrants are women (China Labor Bulletin, 2016). Migrants working in China's cities are making major contributions to China's high rate of economic growth and rapid urbanization (World Bank and Development Research Center of the China's State Council, 2014). Official census data in 2017 shows that the manufacturing sector employed the largest share of migrant workers (39%), followed by construction (17%), and household and commercial services (12%).

Using the 2010 provincial census data for Guangdong and Fujian, the two top destinations for migrant workers, accounting for about three-quarters of all migrants in China, we assess the work patterns of how female migrants are working, in comparison with their male counterparts, as well as with local female workers (Table A2). In 2010, women were about 40% of migrants in both Guangdong and Fujian provinces. Relative to local female

workers, female migrants were concentrated in low-skilled jobs: over 60% worked in manufacturing assembly lines in 2010, compared with about 30% in manufacturing and related jobs among local female workers. Although the share of migrants holding professional jobs rose over the period, their share (5% Guangdong and 3% Fujian in 2010) was less than half that of local female workers.

Part of the disadvantage facing migrants can be traced to lower educational attainments and skills. Although levels of education have improved over time, as shown in Table 5, drawing on the 2010 and 2016 urban labour force surveys of six cities (Wang, Wang, & Lee, 2019), the disadvantage of migrants and especially women, persists. About one in five female migrants have primary education or below (compared to 10% of migrant men and 3% of locals). Likewise, the share of female migrants who have attained tertiary qualifications (18%) is less than half that of urban women. Although the share of female local workers with computer skills is equal (or higher in the case of word software skills) to that of male local workers, only 44% of female migrants are reported to be able to use a computer compared with female local (57%) and male migrants (50%).

Official wage data, labour force surveys, and qualitative studies all suggest that migrant workers experience various types of labour market discrimination, in terms of job access (e.g., state sector companies), wages, and access to the social welfare system, as well as lack of protection by labour laws. It appears that female migrants face further discrimination because of their gender and the Hukou system. According to the China Labor Bulletin (2016), in major cities, the average take-home pay of migrant workers (3072 Yuan, US$512 ) is often less than half the average wage and those employed in household, sales, hotel, and catering services where female migrants were concentrated were the lowest paid (around 2,600 Yuan).

Using the CHIP survey data from 2007 and 2013, Ma and Li (2016) show that female workers—both locals and migrants—face wage discrimination. However, although women's disadvantage, controlling for various factors such as age and education, improved for female non-migrant workers, the relative position of female migrant workers worsened over time. All else being equal, for female local workers, the wage gap vis-à-vis their local male counterparts shrank from 26% to 10% between 2007 and 2013, whereas the measured wage gaps for female migrants vis-à-vis male migrants rose from 13% to 42% between 2007 and 2013.

The hukou system continues to impose severe discrimination against migrants. The lack of hukou means that they have weak bargaining power with employers and limited alternative employment options, and female migrants concentrated in informal sectors where the enforcement of labour rights and contracts were particularly weak (Ma & Deng, 2016). Using the 2010 National Migrant Dynamics Monitoring Survey which covers 106 cities, Qin et al. (2016) found that rural hukou status reduce wages for female workers (by 16%), controlling for all other factors (the effect of hukou status was not statistically significant for male workers).

Female migrants—like other women—can face disruptions to their work experience, as they leave employment to look after the home and children, and then return to work due to household economic pressures (Qin et al., 2016).

Several firm-level case studies cast light on the challenges facing migrants, both men and women. Démurger, Gurgand, Li, and Yue (2009) provide reports of serious discrimination, including, for example, where higher-status jobs in tourist and hotel services tend to go to the local people even when they have less education. Labour law violations made national headlines in 2010 when 18 young migrant workers attempted suicide at the multinational firm Foxconn's operations. A 2010 survey of over 1,700 Foxconn workers by Ngai and Chan (2011) documents poor working conditions. Employees usually worked 60 hours and up to 80 hours a

week, and more than 80% of the respondents had only "four days of rest or less in a month" during the peak seasons. The survey also revealed that female workers had especially limited opportunities to develop new skills or progress to better jobs.

Domestic work is dominated by female migrant workers. Indeed, 9 in 10 domestic workers are reportedly female migrants, working in jobs that have low qualification requirements, limited job security, and no employment contract. ILO, UNIFEM and Beijing University Women's Law Study and Services Center (2009). These risks and challenges are increasingly well recognized by policy makers, including in the ILO's 2011 convention on domestic work.[13]

## 6 | EMERGING CONCLUSIONS

China's transition from a poor and planned economy to an economic powerhouse appears to have eroded some earlier national achievements in gender equality. This is reflected in falling female labour force participation, widening gender wage gaps, and significant underrepresentation of women in business leadership and management. The withdrawal of women, especially in their prime childbearing years, emerges as a concern—a trend partially attributed to the diminution of childcare services as three decades of structural reforms have drastically reduced the public sector and shifted care responsibilities back to women.

Many female workers, in particular rural-urban migrants employed in China's fast-growing informal sector, face widespread discrimination, violations of labour standards, and a lack of social protection.

In contrast to trends in much of the rest of the world, gender wage gaps have widened in China—from around 16% to 22% in the 1980s to 32% to 37% in 2014 for salary workers. Mounting evidence suggests that overt discrimination against females in job recruitment is a serious problem in the private sector and that women face limited prospects for promotion within firms.

These changes, combined with a failure to regulate private sector firms to enforce gender equality legislation, appear to have eroded some earlier achievements. However, there are also major new economic opportunities. The good news is that China's structural changes, most notably the expansion of technology-intensive industries and the service sector, the emerging middle-class, and an ageing population, are creating new economic opportunities for women. The Chinese economy is now entering a phase increasingly dominated by technology-intensive industries and services. Opportunities are shifting away from manufacturing toward more highly paid jobs in the skilled service sector and e-commerce, which have helped educated women in urban areas to advance their economic prospects. But for female migrants to benefit from the expanded opportunities in the services sector, it appears that further targeted efforts to support skills training, enforcement of labour laws, and expansion of social protection are priorities.

In the face of rapid expansion of informal sector employment and rural-urban migration, the Chinese government has enacted a series of labour laws and regulations. These include the 2004 minimum wage law, the 2008 labour contract law, the 2012 law of prohibiting sexual harassment in the workplace, and the 2013 legislation for equal access to social services for migrant workers. Most recently, the 2011–2020 National Program for Women's Development seeks to ensure women's equal access to social insurance, maternity insurance, welfare, and legal assistance.

[13]See https://www.ilo.org/dyn/normlex/en/f?p = NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C189

Among this series of initiatives, the 2008 labour contract law has been regarded as the most successful, leading to increased contract coverage among migrant and other low-wage workers and a higher share of workers with legally mandated social insurance, without any apparent adverse impacts on labour demand (Freeman & Li, 2014). There is evidence of greater awareness, facilitated by social media, about legal rights, with twice as many labour dispute cases being brought to court in 2009 compared with the year prior to the law (Chang & Qiu, 2011). This success has been attributed to the development of the legal system and job recruitment agencies. The central government and the All-China Federation of Trade Unions are making efforts to ensure that local governments and firms are accountable for enforcement (Friedman & Kuruvilla, 2015).

Realizing the potential for gender equality associated with the expansion of economic opportunities still requires concerted policy efforts to overcome persistent discrimination. China can build on its successes of the past and learn from global experience to improve the equality of outcomes over time.

## DATA AVAILABILITY STATEMENT

Most of the data that support the findings of this study are available from the corresponding author upon request, except the 2010 and 2016 urban labour force survey which is not able to be shared.

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## APPENDIX A

**TABLE A1** Occupation groupings

| |
|---|
| Professional and skilled occupation |
| Scientific researchers |
| Engineers and technicians |
| Agricultural technical staff |
| Airplane and ship technical staff |
| Hygienic professional and technical personnel |
| Economic business personnel |
| Financial business personnel |
| Professional personnel of law |
| Teaching personnel |
| Literature and art staff member |
| Sports staff member |
| Journalism, cultural staff member |
| Religious job person |
| Other professional and technical personnel |
| Management |
| Responsible persons of the Central Committee of the Communist Party |
| Responsible persons of different local organizations |
| Responsible persons of government offices and their working organizations |

(Continues)

**TABLE A1** (Continued)

| |
|---|
| Responsible persons of the working organizations of democratic party |
| Institution unit head |
| Enterprise director |
| Services |
| Commerce, service trade personnel |
| Purchase and sales personnel |
| Storehouse personnel |
| Catering and beverage attendants |
| Drink, travel, fitness, public place of entertainment attendants |
| Transport service personnel |
| Assistant service personnel of medical and health work |
| Community service and resident life service personnel |
| Other commerce, service trade personnel |
| Agriculture |
| Crop cultivation production personnel |
| Forestry production and wild animal and plant protection personnel |
| Animal husbandry production personnel |
| Fishery production personnel |
| Water conservancy facilities management and maintenance personnel |
| Other water conservancy production personnel |
| Manufacturing and production related |
| Survey and mineral exploitation personnel |
| Metal smelt, rolling personnel |
| Chemical products production personnel |
| Machine building processing personnel |
| Electronic product assembly personnel |
| Plant equipment repair personnel |
| Rig up of electric power, running, overhauling, and power supply personnel |
| Electronic devices and components, device fabrication, assembly, debugging, and maintenance personnel |
| Rubber and plastic products production personnel |
| Textile, knitting, prints, and dye personnel |
| Cutout, sewing, leather, and fur products processing personnel |
| Grain and oil, food, beverage, and fodder production and processing personnel |
| Tobacco and goods processing personnel |
| Medicine production personnel |
| Timber production and processing personnel |

Source: National Bureau of Statistics. 1990–2012. *China Statistical Yearbook.* Beijing; National Bureau of Statistics. 1982, 1990, 1995, 2000, 2005, and 2010. *Population Census.* Beijing.

**TABLE A2** Distribution of occupation of migrant and local workers by gender, 2000 and 2010, percent

| | Guangdong | | Fujian | |
|---|---|---|---|---|
| | 2000 | 2010 | 2000 | 2010 |
| | Migrants | | | |
| Share of females out of total migrants | 52 | 42 | 41 | 40 |
| Female | | | | |
| Administrator/manager | 0.4 | 1.5 | 0.3 | 1.0 |
| Professional/technical | 2.4 | 5.0 | 2.5 | 3.3 |
| Clerical & related workers | 2.9 | 6.2 | 1.2 | 2.6 |
| Sales and service | 12.8 | 23.8 | 15.3 | 21.7 |
| Agriculture and related | 2.9 | 1.8 | 6.0 | 3.3 |
| Manufacturing and related | 78.6 | 61.6 | 74.5 | 67.7 |
| Not stated | 0.0 | 0.1 | 0.1 | 0.3 |
| Total | 100 | 100 | 100 | 100 |
| Male | | | | |
| Administrator/manager | 1.2 | 2.8 | 0.9 | 2.1 |
| Professional/technical | 3.2 | 4.6 | 3.0 | 3.7 |
| Clerical and related workers | 6.1 | 6.9 | 2.6 | 4.5 |
| Sales and service | 12.8 | 18.1 | 9.1 | 14.1 |
| Agriculture and related | 2.9 | 1.1 | 4.2 | 1.7 |
| Manufacturing and related | 73.8 | 66.3 | 80.0 | 73.7 |
| Not stated | 0.0 | 0.1 | 0.2 | 0.3 |
| Total | 100 | 100 | 100 | 100 |
| | Local residents | | | |
| Female | 2000 | 2010 | 2000 | 2010 |
| Professional | 3.4 | 9.1 | 5.1 | 9.5 |
| Manager | 0.3 | 1.7 | 0.3 | 1.5 |
| Services | 5.4 | 24.4 | 5.3 | 25.4 |
| Manufacturing | 15.6 | 36.1 | 14.9 | 31.3 |
| Agriculture | 75.3 | 28.7 | 74.4 | 32.3 |
| Total | 100 | 100 | 100 | 100 |
| Male | | | | |
| Professional | 5.8 | 6.9 | 5.8 | 7 |
| Manager | 2.2 | 3.9 | 2.2 | 3.7 |
| Services | 6.9 | 21.1 | 6 | 19.8 |
| Manufacturing | 17.6 | 43.4 | 19.6 | 40.8 |
| Agriculture | 67.4 | 24.6 | 66.5 | 28.8 |
| Total | 100 | 100 | 100 | 100 |

Source: Author estimates based on population census 2000 and 2010 for migrants. The data for local residents are from CSYB 2001 and 2011.