Skilled migration and IT sector: a gendered analysis
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1   Introduction

Women make up 48% of all international migrants (IOM 2017). In recent years there has been increasing interest in female migration as this proportion increased before falling back. The increase was due to the growth in the number of female labour migrants especially in order to work in so-called 'less skilled' feminised sectors such as domestic work and care. On the other hand, highly skilled migrants (HSM) are often assumed to be men. Women also play an important part in skilled migration (Raghuram and Kofman 2004) although their presence in these streams remains less visible. Given the trend in many countries to privilege highly-skilled migration in order to address the needs of a knowledge economy it is important to focus on gendered patterns in skilled migration. Between 1990 and 2010, there was a 130% increase to 28 million highly skilled migrants residing in OECD countries (Kerr et. al. 2016), with nearly 70% located within four Anglophone countries: US, UK, Canada and Australia. Interestingly, in 2010, the stock of highly skilled women migrants was higher than the stock of highly skilled male migrants (Kerr et. al. 2016). Migration to feminised sectors such as nursing (Percot and Rajan 2007; Walton-Roberts 2012) and teaching account for some of this rebalancing (Ghosh and Chanda 2016).

One key source country for highly skilled migrant labour is India (Kerr et. al. 2016). Significant numbers of Indian women skilled migrants take part in a range of sectors including medicine, nursing and teaching. However, one of the sectors which has become synonymous with India, and Indian skilled migration, is the IT sector where women too are an important, albeit, smaller part of migrant flows.

Women in the IT sector have garnered significant attention both in India and when they move transnationally (Amrute 2016; Kou et. al. 2017a, 2017b; Radhakrishnan 2011; Raghuram 2004). Very often they are seen through their class position – as those who reproduce class privilege and in fact, accentuate it. However, there are three specific aspects in which existing research can be usefully augmented. First, there are few studies which compare the position of men and women within the sector. A gendered analysis has often remained an analysis of women (Kou et. al. 2017a; Poster 2013; Radhakrishnan 2011). Secondly, none of the existing studies have explored gender patterns and experiences through systematic quantitative data analysis (Amrute 2016; Kou et. al. 2017a, 2017b; Radhakrishnan 2011). Rather they have drawn primarily on ethnographic research, which although valuable, requires bolstering with understandings of demographic and socio-economic patterns which quantitative data often provides. Finally, the emphasis of most existing research, because of the nature of the fieldwork underpinning it, remains at the level of individual experiences. The positive role that men and women play in the IT sector,

i.e. their labour market positions and how these vary by gender, are rarely explored. This chapter aims to address those gaps.

This following discussion explores how the experiences of migrant women and men in the IT sector compare with regard to key indicators. The paper draws on insights from an ESRC funded project (2016-18) Gender and skilled migration in the IT sector: a comparative study of India and the UK. The rest of the chapter is organised into three further sections. The first contextualises the data sources available and how the data collected for this project fills a gap in existing datasets. The second section presents some of the findings from the study while the final section explores the implications of these findings for theoretical and policy research.

2   Situating the data

There is very little systematic data available on skilled migrants and that which exists have various limitations. One body of research draws on various global and national population data sources to generate estimates of stocks of highly skilled migrants (Kerr et. al. 2016). Such sources include databases such as the OECD International Migration Database (Ghosh and Chanda 2016) or SOPEMI databases (Kofman and Raghuram 2009), many of which collate data from individual censuses or other large data sources. They suffer from incompleteness of data, the differences between census years, definitions and data collection methods and therefore limitations to comparability. Another source is the labour force surveys that are more or less routinely conducted within different countries. They may have sampling bias and moreover, they very often focus on those who are at work. These too may be collated such as in the European Labour Force Survey to provide some information on migration patterns. A third method is more country specific but also more reliable. It involves entry data for countries and are therefore based on migrant flows rather than stocks. Where they are obtained from immigration departments they are often reliable but in some cases these flows may be based on sampling rather than complete data coverage (e.g. International Passenger Survey in the UK, whereby only 10% of the travellers are surveyed).

While these types of data are useful, they provide an insufficient picture of HSM as gendered. Part of the issue is that only a handful of countries provide visa entry data disaggregated by gender. Second, the data that is available, such as the OECD data that Ghosh and Chanda (2016) draw upon, is limited in scope of what it can tell about this population. Because of their breadth and coverage they do not offer the demographic details which can help us to understand this group.

On the other hand, the ethnographic research that exists has begun with particular theoretical takes. One significant body of work focuses on women managers and leaders across industries. The emphasis here is on women from countries in the Global North in

managerial or other leadership roles moving for international assignments to countries of the Global North or the Global South (Adler 1997; Fischlmayr 2002; Harrison and Michailova 2012; Napier and Taylor 2002). Less visible is the experience of such women moving from the Global South to the Global North (Pio and Essers 2014) or within the Global South (c.f. Simy Joy). However, research on Indian migrant women in the IT sector does exist (Amrute 2016; Kou et. al. 2017a, 2017b; Radhakrishnan 2011; Raghuram 2004). There are several important ethnographic studies, many of which highlight the importance of globalisation and neoliberal regimes in how gender and class come together in the IT sector (Amrute 2016; Radhakrishnan 2011). This is an important contribution but the nature of work and the labour market factors have not yet been fully explored. Given that the basis of these studies remain women's participation in these labour market sectors this is somewhat surprising.

The rich work on IT workers in India addresses the question of work and of women's experiences in the labour market (James and Vira 2012; Poster 2005; Radhakrishnan 2011; Upadhya 2016). They have provided detailed analysis of how men and women come into and experience the labour market but these studies have not really extended to the study of migrants. Moreover, they begin with a gender pall - the assumption that the presence of women in the IT sector reflects and reproduces the rather negative gender outlooks for India on other indicators. This is understandable given the negativity that surrounds gender issues in India more generally.

However, a more outward looking exploration of women in the IT sector offers a very different picture. India is seen as an outlier in the extent to which women participate in the sector, especially if IT enabled Services is included. The Indian tech sector has reached a critical mass with women's participation at over 30% (Raghuram et. al. 2017). By comparison, the UK has only 17% women as part of its IT/Computing labour force (BCS 2016). For migrant women therefore the world they enter is often more masculine than the one they inhabited at home. Given this, it is important to understand who these women are and where they are placed within the IT labour market. This chapter does just that.

This chapter therefore breaks new ground in its presentation of data on Indian HSM men and women working within the tech sector in the UK. The discussion paints a broad demographic picture of highly skilled migrant tech workers from India in the UK, family social class as a factor in shaping who goes abroad, the nature of international assignments, and the perceived impact of undertaking international mobility on career trajectory. In doing so it provides a firm basis on which to build a fuller picture of migrant Indian women and men in the IT sector. It makes three contributions to the current literature: it offers a meso level analysis, which sits between the large scale migration data sources and the ethnographic research. Unusually, it provides a comparative picture of both men and women and it also focuses on the labour market characteristics of these men and women in

order to situate their lives within, what is an important aspect of the lives of such workers. Empirically, this paper contributes to the growing body of research that makes women visible within the highly skilled labour migration, particularly in male dominated sectors such as IT.

The research presented in this chapter was organised around three variables: gender (male, female), migration status (migrant and non-migrant), and country of fieldwork (UK and India). This resulted in four cohorts: non-migrant IT workers in (**A**) the UK and (**B**) India; (**C**) Indian migrant women and men in the UK and (**D**) UK women and men who are visiting India [hereafter **A**, **B**, **C** and **D**]. India and the UK have been chosen because each has distinctive cultures of gendered entry, participation and progression opportunities for IT workers. The discussion in this chapter draws on one methodology - a bespoke survey which was administered online, to 415 respondents. The sample comprised of the four cohorts identified above. The sample sizes were the following:

	Group A (M:F)	Group B (M:F)	**Group C (M:F)**	Group D (M:F)	Total (M:F)
Actual	122 (65:57)	182 (90:92)	**88 (45:43)**	25 (15:10)	415 (215:202)

The results presented here focus on Indian men and women migrants in the UK–Group C (n=88) – who, at the time, were residing in the UK for work, of which 45 were men and 43 women.   An individual survey was administered online using a proprietary platform.[1] A migrant Indian IT worker was identified as those who completed their secondary and tertiary level of education in India and were living in the UK for minimum six months. It is important to mention that the data collected through individual survey was done so with the aim to be illustrative rather than representative.

In addition to the survey, the project also included in-depth interviews to contextualise and explain the data. Overall 90 interviews were conducted with respondents in the UK (50 interviews) and India (40 interviews). Of the 50 UK interviews, 20 interviews were conducted with Indian migrants (men and women), and 30 interviews with British workers. However, due to limitations of space, the analysis of the ethnographic material falls outside the purview of this chapter.

3   Discussion (3000 words)

The discussion is divided into five key sections. The first section presents the individual respondents' demographic details such as age, education, marital status and children; followed by a review of educational and occupational background of respondents' mother and father in section two. The following sections highlight how demographic characteristics,

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[1] The survey was administered through the international survey firm IMRB Kantar. Respondents were recruited through panels by IMRB Kantar.

particularly marital status and children, are crucial for understanding the gendered patterns across career levels in the IT sector (section three),the nature of international assignments (section four), and their impact on women's career mobility (section five).

3.1.1 Demographics

Age

India has a relatively large youthful population – nearly 2/3 of India's population is below the age of 35 years. The largest group of women (in the survey sample) is aged between 31-35 years (30%), and men is between the ages of 26-30 years (31.1%). Usually, these tech workers are required to have minimum 2-3 years of experience before they can undertake international assignments. Hence, it is unsurprising that the 20-25 years cohort is the smallest age cohort in this sample. There is a clear gender difference between the 26-30 years age cohort of men and 31-35 years cohort for women. The lower participation in international travel for women aged between 26-30 years could be attributed to child care responsibilities.

Table 1: Age groupings of Indian migrants residing in the UK

	M (%)	F(%)
20-25 years	13.3	11.6
26-30 years	31.1	23.3
31-35 years	22.2	30.2
36-40 years	24.4	23.3
41-45 years	6.7	11.6
>= 46	2.2	0
Total	100	100

(Source: GSM-IT survey 2017)

Education

The focus of this project is on high skilled tech workers. Therefore it is unsurprising to see that all respondents have at least a Bachelors degree, in STEM fields such as Engineering, computer science, IT, natural sciences, Electronics and Mathematics. Nearly 40% of the sample also indicated that they possess a Masters degree. There is no evident gender difference in this variable. Overall, this finding mirrors the existing statistics of women's participation in STEM education in India. Over 40% of the STEM graduates in India are women. This is in contrast to the already low and diminishing numbers of women enrolled in STEM education in many Western countries (BCS 2016; Raghuram et. al. 2017).

Marital status

A majority of the sample is over the age of 25 years, are married and have children. A minority of women (20%) are single. The number of single men is even smaller (8.9%), with a majority (75.6%) married, thus highlighting that there are more women than men, who are single, take on international assignment and mobility. We are unable to say how this

impacts the timeline of the single women's lifecourse, particularly with respect to their age of marriage, and age they have children. Marital status is an important indicator for women in India and other contexts where marriage also reflects a significant change of living arrangements and additions of increased participation in social reproduction such as managing and running of the household and care of elderly members of the household. Hence, women are more likely to take up international assignments outside of their reproductive ages, which in India is very often between 26 and 30.

Table 2: Marital status

	M (%)	F(%)
Single	8.9	18.6
Married	75.6	53.5
Engaged	2.2	4.7
Living with partner	11.1	14
In a relationship	2.2	4.7
Widowed	0	2.3
Divorced	0	2.3
Total	100	100

(Source: GSM-IT survey 2017)

Children

55% of the men and 46.5% of the female respondents indicated they had children. Motherhood has been shown to have a detrimental impact on women's careers (Adda 2017; Herman and Lewis 2012; Kahn et. al. 2014) in many parts of the world and India is no exception. Marriage and having children have implications for the ability of women to take on international assignments, and the length of those assignments. Some women are primary carers of children, as well as of other member of the family. Hence, in their decision to take on international assignments, several decisions need to be examined, including education and care of their children. Work on Indian nurses overseas has highlighted the burden that mothers have to manage in caring for the children transnationally (Percot and Rajan 2007). For professional tech workers, if there are no options for children to accompany parents on international assignments, then local care options need to be examined. For many women in India, at times, that responsibility is shared by grandparents of the children. In other cases, albeit a minority, where the mobility is for shorter periods (see section below), and the father is not travelling, the child care responsibilities are shared between the father and a nanny (or live-in caregiver). If neither of those arrangements can be made, then women with children are unable to take on international assignments.

Table 3: Indian migrants residing in UK with children

	M (%)	F(%)
Yes	55.6	46.5
No	35.6	30.2

Missing	8.9	23.3
Total	100	100

(Source: GSM-IT survey 2017)

3.1.2 **Social class of parents**

Support and encouragement from family is considered a key factor for the high participation of women and men in the tech sector in India. The passion for technology is fostered and maintained within this social unit. It is therefore helpful to examine the social class of the respondents' parents, through indicators such as parents' education and occupation.

Education

A body of research on HSM and international student migration (ISM) focuses on the role these migrations play in securing and reproducing social class through cultural and social capital accumulation (Radhakrishnan 2011). However, in order to be able to commence that accumulation, researchers also need to be mindful of existing historical class positionalities. In this study, the women's class positions are less heterogeneous than the men's. This finding echoes other works, such as by Sondhi (2016), Sondhi and King (2017). In particular, more of the women respondents than men, had mothers who were highly educated. Similarly, more women's fathers have tertiary level education than men.

Table 4: Parents' university educational attainment

	M (%)	F(%)
Both parents	37.78	65.12
Mother only	4.44	2.33
Father only	15.56	4.65
Neither	42.22	27.91
Total	100	100

Note: Pearson chi2 (3)=7.3390, P-value=0.062
(Source: GSM-IT survey 2017)

Table 5: Mothers' university educational attainment

	M (%)	F(%)
University-educated	42.22	67.44
Not university-educated	57.78	32.56
Total	100	100

Note: Pearson chi2(1)=5.6408, P-value = 0.018
(Source: GSM-IT survey 2017).

Occupation

Looking at the second identifier of class – parent's occupation, there is no significant correlation between parents' occupation and gender. 40% of the men and 47% of women have both mothers and father working.

Table 6: Parents' occupation.

Occupation	M (%)	F(%)
Both parents working	40	46.51
Only father works	35.56	34.88
Only mother works	4.44	2.33
Neither work	20	16.28
Total	100	100

Note: Pearson chi2(3) = 0.6757,P-value = 0.879; (Source: GSM-IT survey 2017)

Additionally, the data showed that more women's than men's fathers work in professional roles or own their own businesses. The fathers of men were distributed more widely across a range of job roles. Hence, men's class positions are more heterogeneous than women's.

3.1.3   Career level and Motivation to work abroad

Career Level

The image of an Indian coder is often cast against that of the 'western' coder. Whereas the Indian coder undertakes the lower-level 'drudge' coding providing service and support for existing or legacy systems, the 'western' coder is the one who programmes the new and innovate applications (Amrute 2016; Radhakrishnan 2011; Upadhya 2016). An important finding of this survey is that the women in this survey are not the ones doing the 'drudge, or lower-end' work. The younger cohort of this sample does perform that work. However, the majority of the sample of this survey is in their mid-career with over 10 years of experience, holding managerial positions. Hence, the breakdown of this sample also highlights the shifting roles of women and men as the Indian tech industry matures over time. This crucial finding suggests the need to think differently about women's and men's experiences in the Indian tech sector.

Table 7: Career level of Indian migrants residing in the UK

	M (%)	F(%)
Entry Level	6.7	7
Individual Contributors	22.2	32.6
Middle Manager Level	51.1	51.2
Senior Management	17.8	9.3
Top Level/C-Suite	2.2	0
Total	100	100

(Source: GSM-IT survey 2017)

Motivation to work abroad

The factors that influenced respondents' decision to undertake international mobility were divided into two key categories: professional and personal. The top three professional factors cited by both men and women were career progression, gaining and improving managerial skills, and improving technical skills. This lack of gender difference is reflective of gender equality in Indian's women's and men's focus and ambition about their careers.

Table 8: Professional motivations to work abroad

Professional factors	M (%)	F(%)
Gain/improve managerial skills	80.00	79.07
Career progression	73.33	76.74
Global Exposure	66.67	67.44
Improve technical skills	86.67	79.07
Establish networks	62.22	72.09

(Source: GSM-IT survey 2017)

Amongst the personal factors there were two key differences. Firstly, for men, partners/spouses were a key factor in the decision to move abroad (73% of male respondents strongly agreed or agreed, compared to less than 60% of the women respondents). The role of spouse in this decision can be read as involved in the decision to undertake the international opportunity either in the capacity of a potential 'trailing spouse', 'left-behind', or also involved in undertaking their respective international assignment. This is crucial since for the majority of respondents (both men and women), their spouses were employed in either a different company or a different industry. The interviews mirrored this sentiment, in which respondents spoke of the discussions men had with their partners in those cases where their partner's career might be disrupted. This discussion also occurred in cases where women were the primary movers. And in some cases, respondents shared that their husbands were happy to take leave of absence from work for a few months to accompany them abroad. Undertaking a period of work abroad, which may impact the other partner's career, is a key factor in the decision making. A key finding is that men are also taking on the role of 'trailing spouses' – following their partners to the location of their international assignments. The IT sector provides opportunities for women to be the primary international movers with husbands as the followers.

Table 9: Personal motivations to work abroad

Personal factors	M (%)	F(%)
Partner/spouse	73.33	58.14
Caring for elderly family members	55.56	46.51
Better Child care	53.33	58.14
Travel/Adventure	66.67	76.74

(Source: GSM-IT survey 2017)

A noticeable gender difference in personal motivations is the opportunity to travel for women in their decision to take international assignment (over 75% of women respondents strongly agreed or agreed, compared to approximately 65% of the men). International work travel affords people, particularly women, with opportunities to travel and explore new places. International assignments mean that people can navigate the various visa and border control regimes through their organisations rather than individually. Getting a tourist permit for certain countries can be an arduous and complex undertaking, requiring a financial investment with no guarantee of success. Having a work permit minimizes the bureaucracy around receiving permission to enter a country. It also gives the individual more time to explore each place when compared to those who are traveling on a tourist visa with a time limitation. Lastly, for women, travelling alone in European or North American contexts is perceived to be safer than doing so in India.

3.1.4 Nature of International assignments

Type of mobility
Of this sample subset (men and women migrants working in the UK), all respondents have a history of undertaking prior mobility for work – either national or international. The largest group had undertaken international mobility previously in their role, while a minority had undertaken only national (within Indian) mobility for work. It is evident that there is experience and knowledge of how to work in different settings outside of the main office.

Table 10: Previous migration experience

	M (%)	F(%)
National	22.2	16.3
International	44.4	48.8
Both	33.3	34.9
Total	100	100

(Source: GSM-IT survey 2017)

Job role
As section three above hinted, the nature of work undertaken by Indian tech workers on international assignments is now more varied than existing research highlights (James and Vira 2012; Radhakrishnan 2011). The respondents indicated that their work expands across several of the broad categories mentioned below in Table 11. While majority of the work is in service and support (38.7%) of existing systems, there is also growing work in consulting (30.7%), in advising clients on what potential solutions exist to resolve their digital and technical needs. There is also an increasing group working on building new solutions – applications (18.2%) to meet the needs of the clients. Hence, no longer is the Indian tech industry the one that a consultant outsources to. Instead, all the functions – from the consulting to application production, to service and support have been brought in-house under one umbrella of India's major MNCs.

Table 11: Job Roles on international assignment

	M (%)	F(%)
IT Consulting	**40**	20.9
Application	**13.3**	23.3
Service & Support	**31.1**	46.5
Data Service	**2.2**	2.3
Testing	**11.1**	7
Sales	**2.2**	-
Total	**100**	100

: (Source: GSM-IT survey 2017)

There is a gender difference in the type of work women and men are conducting. For women the most important single role is providing service and support (46.5%) while men were primarily involved in consulting (40.0%), which requires more client interaction roles. This gendered division of labour in IT mirrors other research (Patel and Parmentier 2005) which indicates women are more likely to be in customer service and support roles. However the higher percentage of women in technical roles in Table 11 (Application development) is surprising and bucks the trend found in most Western countries.

Purpose of international assignments

The top three types of work undertaken while on international assignments were short-term projects, long-term projects and client meeting/business development. Short term and long term projects implies either coding or support/service type work, and is dominated by women as indicated in the section above. Nearly 50% of women respondents reported that they travelled for short or long term assignments. Mirroring the gendered nature of the type of work revealed stated earlier, most men said that their primary reason for travel was short term travel and business development.

Table 12: Most common purpose for travel for work

	M (%)	F(%)
Client meeting	13.3	16.3
Business development	20	7
Short term projects	20	25.6
Long term projects	13.3	23.3
Receiving training	4.4	0
Provide training	0	9.3
For better opportunities	0	2.3
Missing	28.9	16.3
Total	100	100

(Source: GSM-IT survey 2017)

Duration of international assignments

Each type of work undertaken during international assignments is associated with particular durations of time abroad. With a few exception of men, all respondents undertook international mobility for duration of up to a maximum of 1 year. One reason for this is that the length of each project is limited; the other is limitations of period of stay as imposed by the visa regimes of the destination country, in this case the UK. However, this does not mean that the person leaves at the end of each assignment. Some people are likely to be moved to a new project as one comes to completion, which may then require them to extend their existing permit, or apply for a new one. However, it is unlikely that employees would stay for more than three years. This again is undoubtedly influenced by UK migration policies.

Table 13: Duration of international assignment for women

Women	15 days to 1 month	>1 month to 3 months	>3 months to 6 months	>6 months to 1 year	Missing	Total
	%	%	%	%	%	%
Client Meeting	25.6	7	4.7	0	62.8	100
Business Development	9.3	14	2.3	2.3	72.1	100
Short term projects	14	11.6	7	7	60.5	100
Long term projects	9.3	11.6	2.3	2.3	74.4	100
Receiving Training	9.3	0	2.3	0	88.4	100
Provide Training	14	11.6	2.3	0	72.1	100

(Source: GSM-IT survey 2017)

Table 14: Duration of international assignment for men

Men	15 days to 1 month	>1 month to 3 months	>3 months to 6 months	>6 months to 1 year	>1 year to 3 years	Missing	Total
	%	%	%	%	%	%	%
Client Meeting	33.3	2.2	2.2	0	0	62.2	100
Business Development	17.8	8.9	8.9	0	2.2	62.2	100
Short term projects	15.6	13.6	6.7	4.4	0	60	100
Long term projects	8	11.1	6.3	6.7	8.9	66.7	100
Receiving Training	4.4	2.2	4.4	4.4	0	88.4	100
Provide Training	11.1	4.4	2.2	2.2	0	80	100

(Source: GSM-IT survey 2017)

3.1.5 Impact of international mobility

Given the nature of transnational IT work provided by Indian companies, there has been a tendency to focus on how such work benefits the client firms. There has been little exploration of the role that IT plays in individual careers.

Table 15: Impact of international mobility on professional and personal development

	M (%)	F (%)
Managerial skills development	46.67	60.00
Technical skills development	51.11	53.33
Global exposure	44.44	46.67
Career progression	48.89	53.33
Establishing networks	42.22	53.33
Maintaining relationship with partners	42.22	42.22
Caring for children	35.56	28.89
Caring for ageing family members	37.78	40.00

(Source: GSM-IT survey 2017)

This project shows that for many migrant workers, men and women, international travel was an important means by which to learn and expand their skills: managerial, technical and in helping them to build networks. Mirroring the interviews, the data also showed that international mobility also played a part in redefining their roles within the family which they found useful in navigating their life.

4   Conclusion (500 words)

This paper has drawn on questionnaire data, adding to current literature on migrant women in the IT sector which has primarily been based on ethnographic work. In doing so it offers the ability to trace patterns of gendered differences between migrant women and men in the IT sector for the first time. The discussion on highly skilled mobility in this chapter is particularly unique in three ways. Firstly, it gives meso-level insight on various components of the migration process that are gendered such as type of international work, motivations to work abroad and perceived impact on the career mobility of the respondents. Second, it provides a comparison between women and men to shows us where gender does not matter or where it is trumped by other factors. Through the meso-level comparative analysis, this discussion provides alternative narratives to open the discussion to more productive engagements within the body of work on gender and labour migration.

So where does gender matter? Analysis of the data shows some important demographic differences between women and men. First, if class is understood as reproduction of educational advantage then there are clear differences between migrant women and men. Migrant women are more likely to have mothers who are university educated and work

outside of the home in professional roles. This, taken in conjunction with the spouse as a factor in decision to undertake international assignments, makes family, a key site for inherited support including in decision-making which supports migration and career mobility. Employing a life-course lens, another demographic difference involves the age groups of migrants with women migrants more likely to be on either side of the reproductive age 26-30 while that is the most important age group for men. This suggests the importance of biological reproduction in affecting migration prospects for women, rather than men.

A second notable difference relates to work trajectories. Here, one significant difference is in the job roles that women and men take up which itself influences the migration process and the type of work and length of assignment which migrants take up. This component is, however, influenced not only by the client and service provider, but also by the visa processes and requirements that control the length of time the work can be conducted.

Lastly, the discussion also suggests the common experiences of women and men in the workplace, which relate to the changing nature of work conducted by Indian tech companies and the workers within. Our study makes visible the career progression and the industry maturation that is occurring with the tech sector in India. The international assignments that are being undertaken are no longer focused only on 'grunt work' such as coding, but also show the shift into sectors that require greater creativity and complex problem solving. In this, clear gender differences emerge. However, the full service Indian tech multi-national corporations appear to allocate men to more client and business development activities and women to the 'traditional' tech work. More work needs to be done to explore the gendered nature of this division of labour.

Bibliography (1000 words)
Adda, Jérôme, Christian Dustmann, and Katrien Stevens. 2017. 'The Career Costs of Children', *Journal of Political Economy,* 125 (2):293–337. https://doi.org/10.1086/690952. [Last Accessed: 14 December, 2017].

Adler, Nancy J. 1994. 'Competitive Frontiers: Women Managing across Borders.' *Journal of Management Development,* 13 (2):24–41. https://doi.org/10.1108/02621719410050237.

———. 1997. 'Global Leadership: Women Leaders', *MIR: Management International Review,* 37:171–96. [Last Accessed: 14 December, 2017].

Amrute, Sareeta Bipin. 2016. *Encoding Race, Encoding Class: Indian IT Workers in Berlin*. Durham: Duke University Press.

BCS. 2016. 'The Women in IT Scorecard.' London: British Computing Society. http://www.bcs.org/upload/pdf/women-scorecard-2016.pdf. [Last Accessed: 14 December, 2017].

Bilimoria, Diana, Simy Joy, and Xiangfen Liang. 2008. 'Breaking Barriers and Creating Inclusiveness: Lessons of Organizational Transformation to Advance Women Faculty in Academic Science and Engineering', *Human Resource Management,* 47 (3):423–41. https://doi.org/10.1002/hrm.20225. [Last Accessed: 14 December, 2017].

Fischlmayr, Iris C. 2002. 'Female Self-Perception as Barrier to International Careers?', *The International Journal of Human Resource Management* ,13 (5):773–83. https://doi.org/10.1080/09585190210125912. [Last Accessed: 14 December, 2017].

Ghosh, Sudeshna, and Rupa Chanda. 2015. 'International Mobility of Skilled Women: Trends and Issues.' In *India Migration Report 2015: Gender and Migration*, 80–103. Routledge.

Harrison, Edelweiss C., and Snejina Michailova. 2012. 'Working in the Middle East: Western Female Expatriates' Experiences in the United Arab Emirates', *The International Journal of Human Resource Management,* 23 (4):625–44. [Last Accessed: 14 December, 2017].https://doi.org/10.1080/09585192.2011.610970.

Herman, Clem, and Suzan Lewis. 2012. 'Entitled to a Sustainable Career? Motherhood in Science, Engineering, and Technology', *Journal of Social Issues,* 68 (4):767–89. https://doi.org/10.1111/j.1540-4560.2012.01775.x. [Last Accessed: 14 December, 2017].

IOM. 2017. 'World Migration Report 2018.' http://publications.iom.int/books/world-migration-report-2018. [Last Accessed: 14 December, 2017].

James, Al, and Bhaskar Vira. 2012. 'Labour Geographies of India's New Service Economy', *Journal of Economic Geography,* 12 (4):841–75. https://doi.org/10.1093/jeg/lbs008. [Last Accessed: 14 December, 2017].

Jane, Punnett Betty, Crocker Olga, and Ann Stevens Mary. 1992. 'The Challenge for Women Expatriates and Spouses: Some Empirical Evidence', *The International Journal of Human Resource Management,* 3 (3):585–92. https://doi.org/10.1080/09585199200000166. [Last Accessed: 14 December, 2017].

Kahn, Joan R., Javier García-Manglano, and Suzanne M. Bianchi. 2014. 'The Motherhood Penalty at Midlife: Long-Term Effects of Children on Women's Careers', *Journal of Marriage and Family*, 76 (1):56–72. https://doi.org/10.1111/jomf.12086. [Last Accessed: 14 December, 2017].

Kerr, Sari Pekkala, William Kerr, Çağlar Özden, and Christopher Parsons. 2016. 'Global Talent Flows', *Journal of Economic Perspectives,* 30 (4):83–106. https://doi.org/10.1257/jep.30.4.83. [Last Accessed: 14 December, 2017].

Kofman, Eleonore. 2000. 'The Invisibility of Skilled Female Migrants and Gender Relations in Studies of Skilled Migration in Europe', *Population, Space and Place* 6 (1):45–59.

Kofman, Eleonore, and Parvati Raghuram. 2009. 'Skilled Female Labour Migration.' *Focus Migration: Policy Brief*, No 13. http://focus-migration.hwwi.de/index.php?id=6029&L=1. [Last Accessed: 14 December, 2017].

Kõu, Anu, and Ajay Bailey. 2017a. ' "Some People Expect Women Should Always Be Dependent": Indian Women's Experiences as Highly Skilled Migrants', *Geoforum,* 85 (October):178–86. https://doi.org/10.1016/j.geoforum.2017.07.025. [Last Accessed: 14 December, 2017].

Kõu, Anu, Clara H. Mulder, and Ajay Bailey. 2017b. ' "For the Sake of the Family and Future": The Linked Lives of Highly Skilled Indian Migrants', *Journal of Ethnic and Migration Studies,* 43 (16):2788–2805. https://doi.org/10.1080/1369183X.2017.1314608. [Last Accessed: 14 December, 2017].

Napier, Nancy K., and Sully Taylor. 2002. 'Experiences of Women Professionals Abroad: Comparisons across Japan, China and Turkey', *The International Journal of Human Resource Management*, 13 (5):837–51. https://doi.org/10.1080/09585190210125949. [Last Accessed: 14 December, 2017].

Ortiga, Yasmin Y., Meng-Hsuan Chou, Gunjan Sondhi, and Jue Wang. 2017. 'Academic 'Centres,' Epistemic Differences and Brain Circulation', *International Migration*, June. https://doi.org/10.1111/imig.12354. [Last Accessed: 14 December, 2017].

Patel, Reena, and Mary Jane C. Parmentier. 2005. 'The Persistence of Traditional Gender Roles in the Information Technology Sector: A Study of Female Engineers in India', *Information Technologies & International Development,* 2 (3):pp–29. [Last Accessed: 14 December, 2017].

Percot, Marie, and S. Irudaya Rajan. 2007. 'Female Emigration from India: Case Study of Nurses', *Economic and Political Weekly,* 42 (4):318–25.

Pio, Edwina, and Caroline Essers. 2014. 'Professional Migrant Women Decentring Otherness: A Transnational Perspective.' *British Journal of Management* 25 (2):252–265. https://doi.org/10.1111/1467-8551.12003. [Last Accessed: 14 December, 2017].

Poster, Winifred R. 2013. 'Global Circuits of Gender: Women and High-Tech Work in India and the United States', *Gender, Sexuality & Feminism,* 1 (1):37–52. https://doi.org/10.3998/gsf.12220332.0001.103. [Last Accessed: 14 December, 2017].

Radhakrishnan, Smitha. 2011. *Appropriately Indian: Gender and Culture in a New Transnational Class*. Durham, NC: Duke University Press.

Raghuram, Parvati. 2004. 'The Difference That Skills Make: Gender, Family Migration Strategies and Regulated Labour Markets,' *Journal of Ethnic and Migration Studies,* 30 (2):303–21. https://doi.org/10.1080/1369183042000200713. [Last Accessed: 14 December, 2017].

Raghuram, Parvati, Clem Herman, Esther Ruiz Ben, and Gunjan Sondhi. 2017. 'Women and IT Scorecard - India, A Survey of 55 Firms.' The Open University. https://doi.org/10.13140/RG.2.2.10118.98882. [Last Accessed: 14 December, 2017].

Raghuram, Parvati, and Eleonore Kofman. 2004. 'Out of Asia: Skilling, Re-Skilling and Deskilling of Female Migrants,' *Women's Studies International Forum,* 27:95–100.

Sondhi, Gunjan. 2016. 'Indian International Students: A Gender Perspective.' In *India Migration Report 2015: Gender and Migration*, 104. Routledge.

Sondhi, Gunjan, and Russell King. 2017. 'Gendering International Student Migration: An Indian Case-Study', *Journal of Ethnic and Migration Studies,* 43 (8):1308–24. https://doi.org/10.1080/1369183X.2017.1300288. [Last Accessed: 14 December, 2017].

Upadhya, Carol. 2016. *Reengineering India: Work, Capital, and Class in an Offshore Economy*. Oxford, New York: Oxford University Press.

Walton-Roberts, Margaret. 2012. 'Contextualizing the Global Nursing Care Chain: International Migration and the Status of Nursing in Kerala, India,' *Global Networks,* 12 (2):175–94. https://doi.org/10.1111/j.1471-0374.2012.00346.x. [Last Accessed: 14 December, 2017].

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