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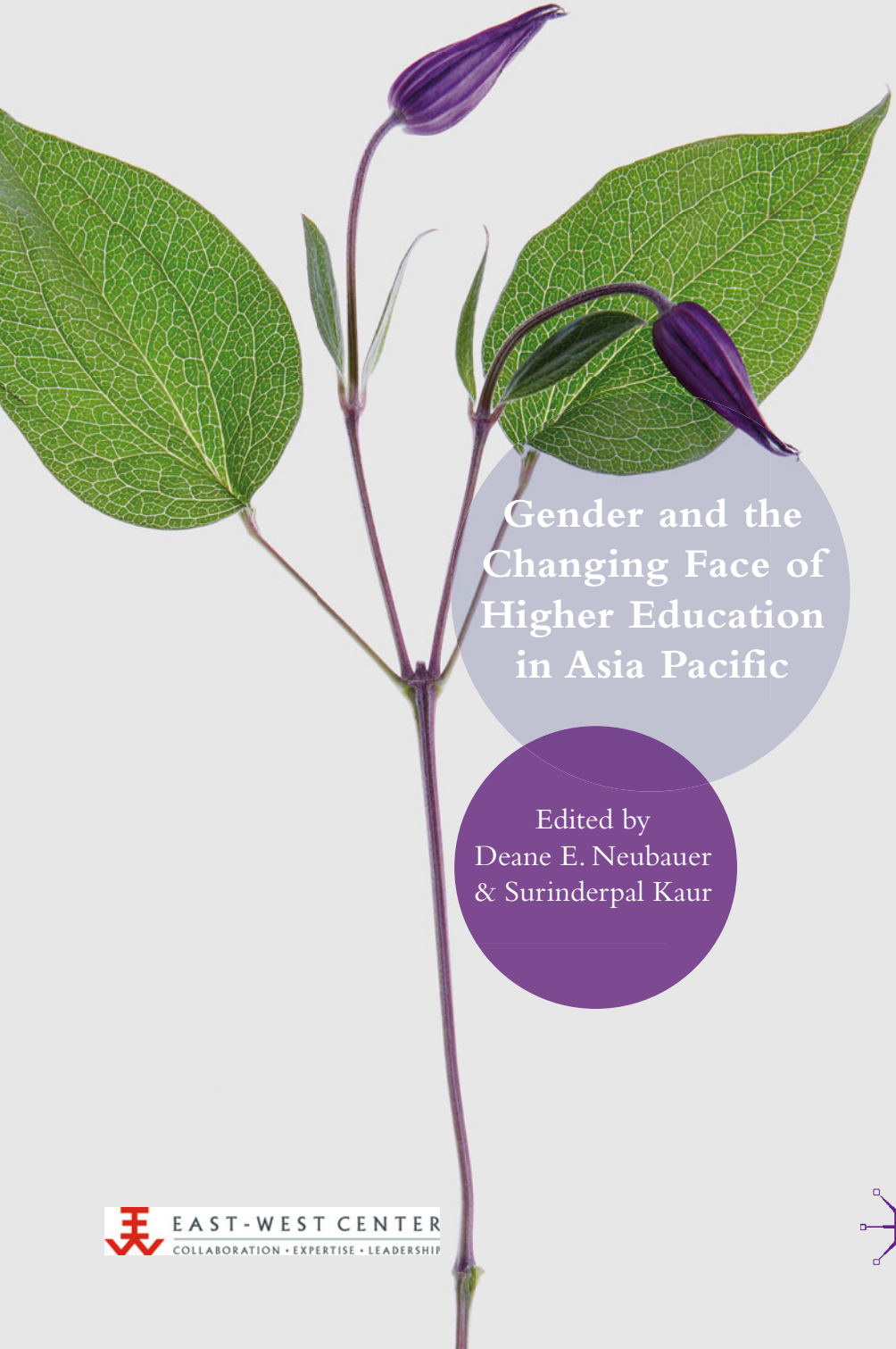

Gender and the Changing Face of Higher Education in Asia Pacific

Edited by
Deane E. Neubauer
& Surinderpal Kaur

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Gender and the Changing Face of Higher Education in Asia Pacific

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Series Editors' Introduction

We are pleased to introduce another volume in the Palgrave Macmillan International and Development Education book series. In conceptualizing this series we took into account the extraordinary increase in the scope and depth of research on education in a global and international context. The range of topics and issues being addressed by scholars worldwide is enormous and clearly reflects the growing expansion and quality of research being conducted on comparative, international, and development education (CIDE) topics. Our goal is to cast a wide net for the most innovative and novel manuscripts, both single-authored and edited volumes, without constraints as to the level of education, geographical region, or methodology (whether disciplinary or interdisciplinary). In the process, we have also developed two subseries as part of the main series: one is cosponsored by the East West Center in Honolulu, Hawaii, drawing from their distinguished programs, the International Forum on Education 2020 (IFE 2020) and the Asian Pacific Higher Education Research Partnership (APHERP); and the other is a publication partnership with the Higher Education Special Interest Group of the Comparative and International Education Society that highlights trends and themes on international higher education. The issues that will be highlighted in this series are those focused on capacity, access, and equity, three interrelated topics that are central to educational transformation as it appears around the world today. There are many paradoxes and asymmetries surrounding these issues, which include problems of both excess capacity and deficits, wide access to facilities as well as severe

restrictions, and all the complexities that are included in the x Series Editors Introduction equity debate. Closely related to this critical triumvirate is the overarching concern with quality assurance, accountability, and assessment. As educational systems have expanded, so have the needs and demands for quality assessment, with implications for accreditation and accountability. Intergroup relations, multiculturalism, and gender issues comprise another cluster of concerns facing most educational systems in differential ways when one looks at the change in educational systems in an international context. Diversified notions of the structure of knowledge and curriculum development occupy another important niche in educational change at both the precollegiate and collegiate levels. Finally, how systems are managed and governed are key policy issues for educational policymakers worldwide. These and other key elements of the education and social change environment have guided this series and have been reflected in the books that have already appeared and those that will appear in the future. We welcome proposals on these and other topics from as wide a range of scholars and practitioners as possible. We believe that the world of educational change is dynamic, and our goal is to reflect the very best work being done in these and other areas. This volume meets the standards and goals of this series and we are proud to add it to our list of publications.

Los Angeles, CA, USA — John N. Hawkins
Memphis, TN, USA — W. James Jacob

This volume is dedicated to Professor John N. Hawkins whose vision and sound guidance has been a vital factor in the East–West Center engagement of higher education research, of which this volume is a part.

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Ya-Hsuan Wang received her Ph.D. in sociology of education from University of Cambridge, UK, in 2004. She is currently a professor of Education at National Chung Cheng University in Taiwan. She majors in sociology of education, gender education, and multicultural education.

Prior to her 15 years on the university faculty, she previously had 7 years of teaching experiences in primary school. In terms of her academic work, she had completed two 2-year NSC research projects: "*Gender boundary and gender mobility in technology*," and "*Contextual analysis of issues in curriculum policy formation and implementation*", a 3-year NSC research project: "*Becoming multicultural science teachers*", and a 2-year NSC research project: "*New Taiwan Image*". She is recently involved with a 3-year NSC research project: "*Transcultural Knowledge Reform for Pluricultural People in Taiwan*".

Prof. Wang currently serves as an advisor for the *Committee of Women's Right Promotion* and *Gender Equality Committee*. She is a frequent educational speaker, presents papers internationally, and is widely published in academic and professional journals in Chinese and English. Her research was often awarded *NSC Special Outstanding Talent Awards*.

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English publications include *An Uncertain Future: Leading National Universities in South Korea and the Flagship Model* (2017, co-authored with Stephanie K. Kim), *The Rapid Growth of Higher Education in South Korea: Achievements, Dilemmas, and Resolutions* (2016), and *Critical Reflection on the Massification of Higher Education in Korea: Consequences for Graduate Employment and Policy Issues* (2015).

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CHAPTER 1

Introduction

Deane E. Neubauer and Surinderpal Kaur

This volume of essays was developed from a seminar held at Lingnan University, Hong Kong, on October 2016. The contributors were representatives from a higher education policy organization named the Asia Pacific Higher Education Research Partnership (APHERP). The modality of this group has been to develop two "seminars" per year, convened somewhere in Asia, organized by a common thematic which in turn is "triggered" by a brief concept paper to which participants are encouraged to frame their contributions including contesting any of its presumptions. The relative success of this methodology has been demonstrated over a number of years and served to organize the development of the 2016 meeting focused on gender issues. The primary substance of that so-called concept paper appears in a somewhat revised version as Chapter 2 of this volume. In addition, those contributing to this effort are also encouraged, if they are so moved, to develop their own

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independent contributions to the seminar and its subsequent publication. For this volume, this has been the case for the additional chapters provided by Neubauer, Deng and Cuthbert. The overall organization of the book in general follows the major themes introduced within Chapter 2.

In the following chapter, Neubauer examines a range of empirical studies conducted throughout the region over the past several years and in doing so seeks to illustrate with these studies a range of issues introduced in the previous chapter. Additionally, he looks at several empirical studies that go beyond the mere reporting of the data to suggest methodologies and pathways that HEIs and ministries within the region could pursue to further meet patterns of inequality frames in and around gender issues. In seeking out such studies, he has located several that go beyond the manner in which gender is framed within specific institutional contexts, even as they are distributed over broad organizing categories such as gender distributional issues across academic fields and endeavors. In one such study, he cites a broad range of factors that the authors offer as "enabling practices" that HEIs of widely varying hues could pursue to promote greater gender equity. In yet another, he cites an intense study of good practices that may be promoted to address a wide range of gender discriminators within Agriculture, Education and Training programs to render them both more available to women as well as also more effective in their successful pursuit of degrees and placement. In a final study cited, he reviews recent research on the relative success rate by gender of both publication and grant submissions when submission processes are both open and blind, studies that document the extent to which gender distinctions can and do affect the relative academic success rates of candidates and participants in all aspects of such structures.

Hei-hang, Hays Teng follows the more generalized chapters with the first of others that focus on gender issues within a national or regional setting, in this case focusing on better-know "world class" universities including: National Taiwan University, the National University of Singapore, Peking University, Seoul National University, the University of Hong Kong and the University of Tokyo. In this review, he underlines a major issue that is to be repeated throughout subsequent chapters, namely the relatively constant phenomenon of a significant gender imbalance in higher leadership positions, and he explores the range of factors that lead female academics at all levels to experience greater

relative burdens within the academy than that of their male counterparts, of which family and household responsibilities continue to loom large.

In Chapter 5, Denise Cuthbert and Leul Tadessi focus on a theme that is constant through the whole of the volume, namely the role of women within Science, Technology, Engineering and Mathematics (STEM) fields. While the relative imbalance of women in such fields appears to stretch across countries and their various levels of HEIS, in this particular instance the authors focus on the specific needs Australia has had over the last several decades in building out its innovation sector to remain an internationally competitive economy. Whereas historically, the country has focused actively and significantly on in-migration to fill its growing needs for such talent, over more recent years in a climate in which an "ideas economy" is viewed as a necessary alternative to its "historical dependence on extractive industries" specific governmental policy has sought both to underscore the importance of STEM fields within graduate education and to emphasize increasing both the recruitment and success of women in such fields. The authors provide an extensive review of the "reframing" of such issues within Australian HE.

In the following chapter, Manasi Thapliyal Navani provides an extensive overview of the HE system in India, which like China, finds itself in the midst of a significant and continuing increase in the number HEIs and the postsecondary sector itself, fueled by a continuing increase in the number of students engaged in both tertiary and postsecondary institutions. This transition has been further complicated by India's aggressive embrace of economic liberalization since the 1990s, resulting in a society that continues to be further challenged by continued demographic expansion. Despite the country's overall renewed attention to gender education spurred by the reality of the large number of illiterate women in the country at its "neo-liberal" turn, two daunting challenges remain: The continued disparity between genders within higher education and especially at higher levels, and that affecting women from the most disadvantaged sections of communities to reach higher education who at that attainment "will find fewer public institutions to sustain and support them through their educational journeys." These themes are played out in a detailed analysis of contemporary higher education in India, replete with abundant supporting empirical data.

Chapter 7 provided by Weiling Deng complements many of the critical perspectives introduced in the preceding chapter and allows them to become a defining framework for the reach across the many decades

since the late Qing Dynasty. This becomes the location point for the emergence of "the women's problem" in modern China which continues to play out in its current manifestations within the society as a whole and in this case, specifically within higher education environments. As the dynamic of the creation and articulation of sexual differences and gender continues through the extraordinary interactive complexities of modern China, fueled by the forces of intense economic development and a continued process of emergent political definition and institutional change, difference, gender and education become a complex vortex for the realization of new and changing notions of all three. Deng provides both a historical and critical setting for her analysis that seeks to provide the reader with useful perspectives and tools for comprehending both the reach and significance of such changes as well as emphasizing both the importance of recognizing gender as a social construction that in many cultural settings (echoed in other Asia settings as well) is contested with its historical conflation of a sexual differentiation.

The subsequent chapter by Kam and Li provides another window on gender and society, examining the relationship of earnings, HE and gender within the case study of Hong Kong. They point out that in the past several decades the enrollment of female students enrolled in Hong Kong HE has come to exceed that for males. However, in a pattern that, again, is observable throughout the rest of Asia and Australia, they fare less well in both employment opportunities and placement, and in employment earnings. In reviewing these data for the past several decades for Hong Kong, they focus on both the trends that have emerged and seek to explore the kinds gaps that exist in employment earnings for women as well as identify other factors that also affect employment.

In Chapter 9, Surinderpal Kaur reprises a theme that has occurred previously in multiple chapters, namely the gender imbalance prevalent in HE leadership roles, in this instance those within Malaysian HE. In line with data reported previously in other chapters, women are "far from being underpresented" in those structures. Indeed, in line with data reported in previous chapters in many respects Malaysia is a leader among Asian countries in the numerical representation of women across a variety of fields, most especially social sciences, linguistics and business. This trend includes the nation's leading universities. However, this is not the case in both the upper professorial ranks or within top university leadership positions. In this chapter, Kaur seeks to provide both a broad but inquiring frame for the complex relationships between leadership and gender.

Issues of the gender transformations current in Malaysian HE are continued in the following chapter in which Jamil Hazri, Ahmad Firdaus Ahmad Shabudin, Santhiram Raman and Ooi Poh Ling examine the overall pattern of gender relations throughout the whole of the HE system. Their analysis points to the close intersect between social and economic transformations in general and their manifestations within HE systems. Thus, while pointing to similar data to those cited by Kaur in the previous chapter, they highlight the emergence of a quite different situation from its historical predecessor in the emergent shortage of men following an earlier period of overall social development and progress into an extended engagement with HE. They point to several recent studies that underline this trend and seek to Illuminate some of the factors that account for it, and to related concerns about the social and economic consequences that may result from it. One take away from the pairing of these two chapters is a clear demonstration of the volatility and structural complexities of the factors that make up HE environments in the rapidly changing societies of Asia and indeed the world as a whole, and to remind us that within all of our efforts to supply generalizations about these processes, the intersect between broader (often global) forces and those present in discrete environments is complex in both kind and manifestation.

Chapter 11 moves to Japan where Shangbo Li has placed the gender discussion within the particular context of the role that Junior Colleges played in facilitating the social transformation of the role of women within Japanese society in its sequential transformations from the onset of the Meiji Period (1868–1912) into the present. As the social framing for women evolved from that of "good wife, wise mother" dominant during that period into its more contemporary manifestations, the role of education for women shifted from that of essentially preparing women for a good marriage into more socially diverse and economically related roles, the particular role of the junior college, which had largely been the site of postsecondary female education, itself shifted. The result has been a significant decline in the social role and rationalization for such institutions and the subsequent withdrawal of national governmental support as the proportion of female enrollment continued to erode. Li uses these data to suggest a significant dimension of the female contribution to overall economic and social productivity.

Minho Yeom moves the site of analysis once again in Chapter 12 in his analysis of the role of women in Korean higher education. Here in a

manner that echoes those of other national societies in the region that we have observed in previous chapters, even as the demographic participation of women has risen dramatically over the past three decades, the distribution of "gender equity" within such institutions continues to lag. His analysis points to three major trends in the relevant research: One set of studies examines the current status of gender equity in Korean higher education and suggests alternative modes of realization for this continually changing environment; a second set of studies focuses on the role women have come to play within such institutions and again we find a familiar pattern of a "winnowing" of participation at the higher levels of academic involvement; and third, he examines yet another set of studies that focus on issues of sexual violence and harassment at both student and faculty levels.

In Chapter 13, Ya-Hsuan Wang illustrates a rather different pattern of gender manifestion within Taiwan given that at the participation level women are very well represented. She points out that largely because of an open and welcoming climate for women within science and technology fields, enrollment in these fields has continued to increase. However, she pointedly emphasizes, the entailment of such a gender distribution has within Taiwan not had the effect so commonly supposed for such a development. Rather than "liberalizing" the society by rendering it more open and susceptible to egalitarian norms of performance, "gender inequality is still pervasive in implicit and subtle ways" as the patriarchal and conservative values of the society continue to be expressed in institutional values and practices.

Our range of regional selections concludes with an examination of gender practices in Thailand, provided by Prompilai Buasuwan and Ratikorn Niyamajan as they explore that seemingly ubiquitous glass ceiling as represented in Thai higher education. They point initially to the fact that demographically Thailand has recently moved in a counter-global trend: Whereas globally the proportion of women to men has declined slightly over the past decade, from 1960 to 2015 in Thailand, it has increased, notably to constitute 50.7% of the population and they have longer life spans. Yet, throughout Thai society as a whole, even while significant steps have been taken to expand the social role of women, their social status remains lower than that of men as judged by several indicators (and reflecting the strong historical gender bias of Thai society). Thus, perhaps not surprisingly and in the pattern we have observed in other Asian and Southeast Asian examples, while the

participation rate of women within higher education has expanded significantly, this is not reflected in their participation in the higher ranks and administrative structures of higher education. They conclude their analysis with a multifactor analysis of the ways in which the glass ceiling operates within Thai higher education.

The volume concludes with Neubauer and Kaur providing commentary on the more recently emerging stresses within the prevailing pattern of globalization that has affected and acted to structure higher education throughout the past several decades. Focused on an increasing set of nationalism-centered actions occurring in a variety of nations, these events will undoubtedly impact both the structure of higher education within nations, and in our view, trigger others that may move the overall pattern of higher education engagement across national borders into a more nationalist-sensitive framework. Should such be the case, we suggest that given one set of circumstances, such events might act to slow actions that have led to greater national participation at all levels for women. At the same time, it appears that the forces already apparent in some societies to challenge existing notions and patterns of gender identity and norms will continue to grow apace and act to confront previously dominant discourses and social structures.

CHAPTER 2

Framing Gender Issues in Asia-Pacific Higher Education

Denise Cuthbert, Molly N. N. Lee, Weiling Deng and Deane E. Neubauer

Introduction

One of the major accomplishments of higher education (HE) across the Asia-Pacific region in the last three decades has been dramatically increased access (ADB 2011). Equity remains a different story. Gender is a marker of inequality which intersects with and compounds other

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categories of difference and disadvantage including (but not limited to) geography (rurality), ethnicity, and class/caste. Inequities in HE based on gender persist in the face of increased access with consequences for the full participation of women, as students and faculty, and with implications for the capacities of HE to serve its many stakeholders. This is notwithstanding significant efforts of governments and global policy agents such as UNESCO and the World Bank, and national governments and peak academic and disciplinary organizations to address issues related to gender inequity in access to and participation in HE. Gendered inequity and more broadly the asymmetrical gendering of experiences and outcomes of students and faculty in HE remain a persistent and under-researched issue in HE systems across the Asia-Pacific region. It is recognized by both the Asian Development Bank (ADB) and UNESCO as a major challenge for HE systems across the region.

In its 2010 Advocacy Brief, *Gender Issues in Higher Education*, UNESCO outlined the then-current state of gendered inequity noting that HE is not only a site for particular forms of gender inequality but also one in which the compounded effects of accumulated educational, socioeconomic, cultural, and geographic disadvantage also play out. In the same Advocacy Brief, the authors note that detailed understanding of the dimensions of the problem—and we would add its variation across the region—is hampered by the lack of national-level sex-disaggregated indicators in higher education and because there are:

> few research-based studies on gender issues in higher education, an issue highlighted by UNESCO and the development and education community. The situation is particularly significant in the Asia-Pacific region – a region rich in the diversity of cultures, economic and human development, and gender relations. (UNESCO 2010, 1)

A useful starting point for addressing the more general gender question is the list of issues formulated by UNESCO, which we have amended slightly to encompass the experiences of faculty along with students in our focus as these constitute further points along the educational continuum where the "baggage" of compounded disadvantage takes its toll:

1. Access, retention, completion, and career progression;
2. Interface between gender and wealth-based disparities;
3. Field of study, horizontal segregation by discipline, and impact on academic career and postgraduation earnings;

4. The everyday experiences of students and faculty, including sexual violence and intimidation on campus and in the classroom;
5. Texture of inequalities (adapted from UNESCO 2010, 1–5).

The presence or absence of women faculty in a wide range of roles, including leadership and research roles, and across all disciplines and fields sends important signals to both male and female students about how gender may be enacted within the academy. Full equity of access and opportunity will not only see women thriving in all fields of study alongside their male peers, but also see them with valid career paths from undergraduate through postgraduate study and into leadership roles in the academy without their "precipitous" departure at key career junctures (the transition to and from graduate degrees for example) or being marooned by any number of horizontal or vertical barriers to full participation. We consider that the inclusion of the gendered experiences of faculty is an important addition to UNESCO's list of issues: To a large degree, the presence or absence of women faculty becomes a salient feature of the way in which students, irrespective of gender, experience HE.

Teasing Out the Issues

As is well documented, the contours and complexion of the impact of gender in HE systems may differ from system to system, reflecting local conditions, culture, and histories. The Asia-Pacific region is large and culturally diverse, comprising advanced HE systems, such as those in the USA, Australia, India, and Singapore, and rapidly developing systems. In some regional instances, participation rates of women students have reached or exceeded parity, while in others this is still some way off.

The persistence and ubiquity of gender inequality and inequity and asymmetrical gender differentiation have generated a rich array of metaphors and descriptors, but perhaps less by way of proven solutions to tackle the problem. Even where some problems are addressed, asymmetric gender effects have the capacity, it seems, to shift as one element—such as access—is addressed, another emerges. In this way, problems of equality of access, largely addressed in many HE systems in the region, have revealed the capacity to morph into other gendered problems such

as assuring equity in full participation and opportunity. In terms of the professional advancement of faculty, we observe both sticky floors and glass ceilings; in relation to the participation of women in Science, Technology, Engineering and Mathematics fields (STEM), we observe in some instances narrow and/or leaky pipelines as girls in many systems fail to take up STEM studies in school, or having pursued these studies, abandon them at key life-career junctures. In general, this is particularly the case for women STEM doctoral and postdoctoral researchers. Gender inequity is manifest structurally through both horizontal and vertical differences in the access, participation, experiences, and educational and career trajectories of men and women as students and as faculty.

Horizontal segregation of women and men is perhaps most marked in many systems by the clustering of women in humanities and social sciences, into the so-called "caring" professions of education, nursing and allied health, and where they do take up STEM studies, it is frequently in the biological and life sciences end of the spectrum, not in the hard sciences and technology fields such as engineering. This is largely due to pipeline effects—relatively low numbers of girls pursuing STEM at school and the persistence of gender stereotypes about what kinds of study and work are best suited to women and men, respectively. Although as we shall see, there are some notable and perhaps telling exceptions to this.

Horizontal segregation may also play out in the career choices, if indeed choice is the correct word, of academic women within HE. Irrespective of discipline or field, women faculty tend to perform a higher proportion of the burdensome administrative work and take on a larger proportion of teaching-related pastoral care work with potential impact on time for research and career trajectories. This produces a complex situation in which horizontal segregation intersects with vertical gender-based segregation as women fail to seek or receive advancement, while male colleagues whose capacity to do so is enabled by the disproportionate burden of teaching and administration borne by female colleagues, pursue research objectives, win grants, secure tenure, and ascend the university hierarchy. Another point at which the horizontal intersects with the vertical is in the area of grants, where, by and large, the largest sums are to be bid for in STEM, where women are underrepresented in many systems. Our intention in this chapter

is to suggest a variety of generalizations that appear to "fit" the data relevant to the status of gender in higher education throughout the Asia-Pacific.

Access and Participation

One of the most commonly researched areas in gender and higher education is the issue of access and participation of female students in higher education. Quite a number of Asia-Pacific countries such as South Korea, Japan, China, Thailand, Malaysia, and the Philippines have more female students enrolled in higher education than males, whereas others such as Cambodia, Bhutan, Bangladesh, and Nepal have more male students (UNESCO 2010). Thus, gender inequality, be it for men or women, is an area of concern. To understand this gender gap in different contexts, to formulate appropriate policies, and to devise effective strategies to achieve gender parity in tertiary student enrollment continue to be of great interest to researchers, policymakers, and practitioners. Historically, much research has been focused on *why* there were fewer women enrolled in higher education, but less attention has been given to the more recent issue *of why men* are missing in higher education in an increasing number of countries.

Gender distribution in higher education remains a persistent issue. Even in countries where the Gender Parity Index (GPI) for tertiary education exceeds 1, women are underrepresented in the fields of Science, Technology, Engineering and Mathematics (STEM fields). For example, in Malaysia even though 58% of recent tertiary education graduates were female, while 59% of the science graduates were female, only 36% of engineering graduates were (UNESCO 2015). Scholars are exploring the various factors contributing to these gender gaps and seeking effective policy solutions. Past research studies have shown that gender stereotyping especially in school curricula has resulted in women shying away from choosing a career in the STEM fields (UNESCO 2010). However, with the spread of manufacturing and the digital revolution throughout the region, more women may now view science and technical fields as viable career options. Statistics also show that women enrollments at the postgraduate levels are generally lower than those for males. To understand the emerging trends in gender gaps, we need more gender-sensitive educational statistics and indicators.

Women in Academia

Women's underrepresentation in senior management in higher education institutions is another area of concern. What factors help to explain this phenomenon? Do recruitment and selection processes discriminate against women who apply for senior management positions? Is support and mentoring critical to creating and actualizing effective pathways into senior management? What are the skills required for effective higher education leadership and management? Do women and men have different management styles? Do gender and leadership styles impact on senior management? Does having women in senior management impact on decision making in, and the culture of, higher education? How powerful are Rectors/VCs/Presidents and do they have an impact on the gender composition of senior management team? These are some of the issues that have been commonly researched by researchers in different parts of the world (UNESCO 1993; Bagilhole and White 2011), albeit it with quite different results.

The literature on women's participation in higher education leadership can be broadly grouped into four analytical frameworks, namely (i) gendered division of labor, (ii) gender bias and misrecognition, (iii) management and masculinity, and (vi) organizational exploitation and work/life balance challenges (Morley 2013). The fact that a primary women's role is to care for children, the sick, and elderly often makes it difficult for them to take on the heavy responsibilities that come with senior management positions. Women academics are caught between two high levels of "institutional demands"—the extended family and the university. However, this argument does not explain why some women who are not so characterized (by being single or child/parent-free) are also not selected for higher education leadership. Research often indicates that gender bias exists in the recruitment and selection of higher education leaders, as the dominant group tends to appoint in its own image. Bias can exist at different stages of academic life, with women's skills and competencies misrecognized. In many instances, leadership qualities such as assertiveness, autonomy, and authority are often associated with males, whereas females are more associated with qualities such as caring and effective communication. The suggestion that women and men have innately different managerial dispositions is highly problematic. The presumption that women lead differently creates binds for women who do not fit "the gender script." More sophisticated frames of

analysis are needed to make sense of the underrepresentation of women in higher education leadership.

It is observed, however, that women are now part of senior management in higher education to varying degrees in many countries. Nevertheless, overall the roles within higher education senior management tend to be gendered resulting in gendering of academic roles (Bagilhole and White 2011). The gendered segregation of management roles is manifested in women often being disproportionately recruited for jobs or committee positions that are time-consuming with heavy workloads in roles such as secretaries, deputy presidents, vice-chairs, or positions that deal primarily with student affairs. It has been posited that with changing times and the impact of the women's movement, there may be differences in the career trajectories and experiences between senior groups of women academics and a younger cohort who are between early and mid-career stages (Bagilhole and White 2013).

No shortage of literature exists on how to change the situation of women in academia as described above. International organizations such as UNESCO, OECD, and the World Bank have produced multiple policy briefs on gender issues in higher education. Morley (2013, 10) has summarized one range of interventions as follows:

i. Fix the women—enhancing women's confidence and self-esteem, empowerment, capacity building, encouraging women to be more competitive, assertive, and risk-taking.
ii. Fix the organization—gender mainstreaming such as gender equality policies, processes, and practices; challenging discriminatory structures, gender impact assessment, audits, and reviews; introducing work/life balance schemes including flexible working.
iii. Fix the knowledge—identify bias, curriculum change, for example, introduction of gender as a category of analysis in all disciplines, introduction of gender/women's studies.

Women Graduates and the Workplace

Although a higher level of education lowers or breaks down many barriers for women to enter professions that are/were dominated by men, gender stereotypes do not necessarily cease to exist. Meanwhile, the awareness that women in the search of professional careers should not necessarily shed their household duties is also on the rise. After a woman

has survived the on-campus challenges as a female student, she is likely to be faced with bigger dilemmas from the "sticky floor and glass ceilings" in employment situations, from the expectation of marriage, partnering, birth giving, and child raising, and from the moral judgments placed on her balancing the demands of work and home.

The Production of Knowledge: Women's Ways of Knowing

Literature on the goal of women's studies identifies different levels of criticalness. Women can be the focus of new content and constitute a definitive lens to supplement the lack of women's images in traditional disciplinary training that focuses on male protagonists—examples are women's literature and women's history which can deployed in pursuit of increasing women's confidence and highlighting women's culture. A second effort can be focused on a critique of the abstractness of the meta-narratives in which women are described as a collective with few personal traits, and readjust comprehensive disciplines, for example, sociology and anthropology to emphasize the significance of the individual and the micro. An even more critical goal is to empower individual women with an emphasis on the politics of the body. Involving the defense of the stigmatization of women's bodies and femininity, the third aspect of acknowledging women's way of knowing, takes active steps to resist the domination of men over women and of masculinity over femininity (Li 1995, 2–3).

No matter what the goals and ways of doing research about women are, these efforts implicitly or explicitly shed light on the politics of knowledge production: For what and by whom certain knowledge is produced. Taking the initiative to overtly produce knowledge from the reflection on and refining of women's daily experience, women's studies challenges the default (mis)conception that knowledge should be objective, neutral, and emotionless. This initiative may also challenge people to exit their comfort zone of thinking, being, and doing to reach out for individuals and communities living in other gender, racial, and class conditions.

Another crucial issue to consider is the impact that social media have on the ways and meanings of knowledge production. In particular, mainstream mass media are giving way to the variety of "new" media that

are going beyond being simply tools to exchange thoughts and publicize information. More noticeably, they provide the ubiquitous and responsive "infrastructure" of interaction that conditions highly networked participation (Lievrouw 2011, 14–15). Arguably, characterized with the highly decentralized and grassroots-friendly authorship, the "new" media constitute an alternative space that may assist the creation and circulation of women's ways of experiencing and knowing, which underpin the epistemological improvement of gender equality. The new pattern of virtual communication both demands and inspires spontaneous interaction and collaboration, if emergent consciousness and knowledge are to be known, learned, and used. Rapidly developing and renovated, the intervention of new media opens up unlimited discussions of how gender perspectives may refresh the understanding of what constitutes valid knowledge and whose interest knowledge serves.

Women and Nationality

For some Asian countries, such as China, the creation of a modern nation and the commencement of women's education were intertwined and mutually influential processes. Both processes took place when capitalism was expanding to the East and stirred severe national insecurity and crises. When based on the "phantasm" of Western women (Zhu 2014), it was believed that a better-educated female population would be a positive contribution to national power in the future. Two other themes were emerging as well. One was to label women's illiteracy and lack of education and physical strength as a major reason that kept the nation "backward" in comparison with the industrialized Western world. The result was that women "were to blame" in some complex way, which exempted men from their duty of reflecting on the pitfalls of a patriarchal society and perpetuated the habitual thinking of blaming the victim. The other theme was directed at the design of women's new roles in relation to the nation's future. Questions were asked, such as whether it was the "new women's" duty to become qualified mothers of qualified male citizens in the future and therefore strengthen the racial seed; whether it is fair to attach the importance of women's education to household responsibilities while that of men's was to individual prominence; and whether meeting "national needs" should be a major, unquestionable assessment of the quality of education.

The rise of women's education, however, did not only bring about a more skilled labor force to the needy nation, but also cast challenges to what was believed to be tradition as the category of "women" became dynamically associated with the complex concept of modernity. As apparent as the demographic change that has taken place in the public sphere since women's participation, an awakened women's subjectivity—especially the autonomy of body—inspired by a higher level of education collides with those portions of the national foundation that is comprised of patriarchy, patrilineage, and patrilocal tenets.

What Is/Might Be the Role of Gender "Workshops" Within Higher Education Institutions?

The increase of women's studies programs on university campuses and the progress of gender awareness in higher education institutions are significant results of the many self-motivated attempts to highlight a women's perspective on human rights. In Asia, as well as for the Asian diaspora worldwide, NGOs and individuals have created experimental workshops in a general effort to make more visible the urgency of reducing gender inequality. These workshops also seek to identify pedagogical patterns relevant to the teaching of feminism or gender knowledge that align with local cultures and/or targeted populations across geographical regions. The action of building workshops for gender equality can be seen as an integration of theory and practice that has a focus on women and sexuality and that supplements or redresses the role of formal, gender-blind higher education. Comparatively, such workshops are designed to be more responsive than universities to the impact on women that the rapidly changing demographics and technology in both education and labor market have.

Usually, such workshop organizers are conscious of both global trends of gender discourses and local socioeconomic, cultural, historical, and political characteristics. In addition, the organizers themselves are a product of hybridized higher education of different locales, which often includes the encounter between the East and the West. Hence, the space of gender workshops is a "glocal" one that simultaneously addresses the commonality of patriarchal discrimination to gender, race, and class across national borders, and facilitates constant re-examination of misogyny and gendered bias within particularly identified contexts (LeeAn 2009).

More…

Other ways of framing and phrasing various issues proceed from the above and are deserving of further attention, some of which will be touched on in the various chapters that follow:

- New approaches such as that characterized by "gender fairness" which focuses on creating an enabling environment for the surrounding society.
- Gender "borders" within higher education: What are they? Where do they come from? What are their effects?
- Generation and gender in academia. How significant is this structure and the relationships that flow from it? What might be done to facilitate better inner-generational communication and collaborative research?
- Female institutional leadership in Higher Education. How extensive is it? Are there significant or relevant differences in institutional leadership that can be identified within higher education roles? If so, what is their character and what consequences flow from them, etc.?
- Nurturing and development of women studies. Where do women studies exist and where not? Are there useful explanatory models to account for such differences etc.? Can particular models be identified that might bear emulation?

These issues/subjects may be conceptualized as elements emerging from "older" elements/aspects of a comparative gender framework, by which we refer to issues that tended to be most evident in the decade after the turn of the century, and perforce were those that were most emphasized in the UN report referenced earlier in this chapter. In subsequent years what might appropriately be viewed as a set of "emergent" issues have arisen, often in the social space that has been created by the important fact that in various societies some earlier practices and policies affecting gender access to higher education have in fact succeeded. Such a perspective allows us to see that the road to gender equity is both long and complex. To illustrate, we suggest that the following may also be appropriate subjects for further study, perhaps gaining perspective by seeing them in a contrast between "older" issues affecting gender—with the important caveat that in many instances the inequalities represented persist—and a "newer" set of issues.

In many instances, these might be characterized as "new" more rapid nationalistic approaches in many nations in the region on the enabling nature of the surrounding society itself, e.g., patriarchal cultures, dominant family paradigms, including mothers who pressure daughters to study areas appropriate to women (e.g., education), pressure to get married and have children and grandchildren.

In many Asian nations as indicated above, enrollments of women are now approaching those of men and in some cases exceeding them such that access per se is not really the point, but rather attention should continued to be directed at fields of study, stereotypes, etc. most visible in the lack of women majors in STEM fields, etc. In this instance, desirable research might focus on the "enabling" or "inhibiting" factors within HE that encourage or dissuade women from entering those fields.

Men dominate fields such as engineering, manufacturing, and computer sciences, sometimes exceeding 80%, while women are concentrated in education, humanities, arts, health and welfare, etc. What kinds of factors exist to promote and/or sustain such pathways and are such patterns changing?

The recent focus on affirmative action, quota systems, aggressive recruitment of women faculty and administrators, reform of curriculum and teaching, etc. is part of the gender-fair model. Can we point to instances in which such enabling activities exist, and can we discern data that suggest the relative success of such policies and actions?

A new redefined role for "all women colleges" appears to be emerging as sites for further liberation of women career choices; family friendly campuses; time off for childrearing from the tenure clock, etc. Continued research can bring new and relevant comparative data to this emergent field.

The new emphasis on LGBT populations in women's education and liberation has progressed rapidly in some settings. How are such population identities treated within the continuous expanded higher education community? Where do they gain organizational form within higher education?

Rejection to some degree of what the analysis of gender issues is in the West, and the search for cultural and historical appropriateness in Asian women's higher education experience is a developing area of research. Scholars are increasingly asking: Where and how are "new" or "revisionist" images of the higher education experience being developed for gendered discourse in specific Asian contexts?

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CHAPTER 3

Gender Issues in Asia Pacific Higher Education: Assessing the Data

Deane E. Neubauer

Introduction

From many perspectives, the transformation in Asia Pacific higher education that has taken place over the past three to four decades, transforming the region from what in Trow's well-known categories was characterized by "elite" level higher education (HE) in which less than 15% of a national population had access to, into the "massification" stage in which between 15 and 50% of a population has access, and in some cases approximating the "universalization" stage in which all who wish to seek higher education have access to it (e.g., the current case in countries such as Korea, Japan, and Taiwan (Trow 2001)). Along with this expanded access, national HE systems have found their ways into a complex set of development consequences in which expanded access, especially when very rapid, brings with it a host of related issues, including (but not limited to), issues of differential equality (especially with respect to urban and rural differences, class, and gender), quality challenges

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(rapid expansion of access often outstrips the ability of national states to provide adequate facilities and staff), sustainability challenges (rapid expansion creates in its path complex maintenance issues of both physical facilities and human resources, and inevitably financial challenges as well), and even more complex issues of equity and meeting challenges arising from environments outside the national setting (Tanaka and Neubauer 2011).

Within these complex processes issues of gender emerge, initially framed within equality discourses, framing access in particular on the basis of whether differentiations occur based merely on gender, whether policies reflect gender-neutral values, etc. Quickly, however, equality issues are transformed into equity issues as notions of equal access are conjoined to complex discourses about the range of values and factors that need to be present in higher education settings to ascertain whether individuals are enabled to confront its challenges within rules and normative structures that compensate in essential instances where historical instances of inequality are enshrined into norms and practices that militate unfairly against given parties. Thus, challenging equality to engage equity is and continues to be, one of the considerable and enduring challenges facing higher education.

In this chapter, I will seek to examine various data sets that touch on a number of dimensions of general equality and equity. These include elements of differential access to higher education and achievement, including distributions by fields of study; an initial statement of the kinds of barriers to gender equality and equity that exist within higher education professional settings drawn from an Indian study, but easily generalizable; an examination of how the "academic content structure" is gendered (the degree to which fields of inquiry are themselves gendered) using data from an Agricultural Education study that includes a large number of recommendations on how any institution might proceed to develop correctives to such practices; and a study from the geosciences that suggests how gender bias creeps all the way into practices such as academic letters of recommendation and the selection of participants for academic conferences and publications. My hope is that these data and examples will assist us to identify a range of gender-related issues that persist in higher education and begin to frame alternatives that can be established at the institutional level.

Differential Access and Focus Within Academic Settings

Two important data sources provide quite different looks at gender and education. The World Economic Forum has for several decades conducted a data review of countries by a wide variety of indicators, one of which focused on its Index of Gender Gap. Table 3.1 provides several measures of relative national standing on the issue of the extent of the gender gap across various indicators. The first is the global rank order standing on its index of the gender gap made up of 55 gender-related indicators, which include information on employment and leadership; education and technology; health; family and rights and norms (Global Economic Forum 2015); the second is a Gender Gap Index Score; the third provides both the rank order followed by the index score for the measure of economic participation and opportunity; the fourth provides rank orders followed by the index scores for educational attainment; and the last provides rank orders and index scores for enrollment in tertiary education. While one may find issue with such indexes (especially when they do not provide such variables as for enrollment in tertiary education), the overall distributions suggested by the Gender Gap Index especially for highly economically developed countries is of interest.

Tables 3.1 and 3.2 list the sample countries by their Gender Gap Index Scores, and as one can see, the degree of size and complexity of their economies is *not* the determining factor in determining their relative ranking. Of special note are the relatively low positions of China, Japan, the Republic of Korea, Malaysia, and India, suggesting that at least in terms of gender participation across a range of social and economic factors, gender inequality is still relatively pronounced and suggesting further the latent and persistent effect of long-term cultural factors in determining gender participation across a variety of indicators.

A second set of data is drawn from UNESCO statistical sources that allow us to review a variety of higher education data by gender. One of the most fundamental is the distributions of students within higher education by gender. Table 3.3 indicates the percentage of students in tertiary education who are female. (Note, the data are not uniformly for the same year, some varying between a reporting date of 2013, some at 2015. For this exercise, I have selected the most recently reported data. Some other countries that would be desirable to have in this table, e.g., Singapore, are not available within this data set.) From Table 3.3, one can see a lack of correlation between the relative sophistication of the

Table 3.1 Gender Gap Index

Country	*Gender Gap Index 2015 rank*	*Gender Gap Index score*	*Economic participation and opportunity*	*Educational attainment*	*Enrollment in tertiary education*	*Index change 2006–2015*
Australia	36	0.733	32/0.766	1.0/1.000	1/1.00	0.0
China	91	0.682	81/0.657	83/0.988	1/1.00	+0.025
India	108	0.664	139/0.592	125/0.896	104/0.92	+0.062
Indonesia	92	0.681	114/0.593	89/0.986	1/1.00	+0.027
Japan	101	0.670	106/0.592	84/0.998	106/0.90	+0.026
Lao	52	0.713	11/0.713	116/0.946	109/0.88	+0.013
Malaysia	111	0.655	95/0.592	100/0.946	1/1.0	+0.004
Mongolia	56	0.709	22/0.783	73/0.992	1/1.00	+0.027
New Zealand	10	0.782	30/0.768	1/1.00	1/1.00	+.031
Philippines	7	0.790	16/0.799	34/1.00	1/1.00	+0.039
Rep. of Korea	115	0.651	125/0.557	102/0.965	116/0.75	+0.035
Sri Lanka	84	0.686	120/0.577	57/0.995	1/1.00	−0.034
USA	28	0.740	6/0826	40/0.999	1/1.00	+0.036
Vietnam	83	0.687	41/0.731	114/0.941	105/0.090	−0.002

Source World Economic Forum (2015)

Table 3.2 Countries ranked by Index Gap score

Country	*Index Gap rank*	*Index Gap score*
Philippines	7	0.799
New Zealand	10	0.782
USA	28	0.740
Australia	36	0.733
Lao	52	0.713
Mongolia	58	0.783
Vietnam	83	0.687
Sri Lanka	84	0.686
China	91	0.682
Indonesia	92	0.682
Japan	101	0.670
India	108	0.664
Malaysia	111	0.655
Korea	115	0.651

Source World Economic Forum (2015)

Table 3.3 Percentage of students in tertiary education who are female

Country	*Percentage female*
Australia	56.8
China	51.1
India	45.9
Indonesia	52.2
Japan	46.6
Lao	47.7
Malaysia	57.4
Mongolia	58.4
New Zealand	57.1
Philippines	55.1
Korea	40.1
Sri Lanka	60.4
Thailand	56.9
USA	56.3
Vietnam	50.1

Source UNESCO, Institute of Statistics (2016)

economy (and—one presumes—the corresponding relative sophistication of its higher education system).

Table 3.4 rank orders these data, and once again as we can see, female participation in tertiary education is poorly correlated with the relative economic sophistication of the society in which it occurs.

Table 3.5 provides data on the relative success of students within tertiary education by gender, indicating the percentage of graduates from tertiary education who are female. Again when we rank order these data (Table 3.6), we observe yet another pattern in which in relative terms, the percentage of female graduates in the more developed economic societies tends to increase relative to their status when measured simply by gross participation rates. (Completion data for Thailand are not available in this data set.)

A matter of considerable interest throughout the world is the distribution of female students by their field of specialization, the commonly held belief being that female students are concentrated in humanities, social science, education, the helping professions, and to some extent healthcare, and are relatively absent in agriculture, science, technology, engineering, and mathematics (STEM) programs (Table 3.7). Table 3.8, utilizing the same data source, provides data on the distribution of female tertiary students enrolled by field of study. Here we see

Table 3.4 Rank order of countries by percentage female

Rank order	*Country*	*Percentage female*
1.	Sri Lanka	60.4
2.	Mongolia	58.4
3.	Malaysia	57.4
4.	New Zealand	57.1
5.	Thailand	56.9
6.	Australia	56.8
7.	USA	56.3
8.	Philippines	55.1
9.	Indonesia	52.2
10.	China	51.1
11.	Vietnam	50.1
12.	Lao	47.7
13.	Japan	46.6
14.	India	45.9
15.	Republic of Korea	40.1

Source UNESCO, Institute of Statistics (2016)

Table 3.5 Percentage of female graduates in tertiary education

Country	*Percentage of graduates of tertiary education female*	*Rank order with sample*
Australia	58	6
China	51.1	10
India	49.1	13
Indonesia	52.1	8
Japan	49.2	12
Lao	47.0	14
Malaysia	59.1	4
Mongolia	64.0	1
New Zealand	59.4	3
Philippines	57.5	7
Korea	51.3	9
Sri Lanka	60.3	2
USA	58.4	5
Vietnam	49.7	11

Source UNESCO, Institute of Statistics (2016)

Table 3.6 Rank order of countries by % female graduates

Rank	*Country*	*% of graduates of tertiary education female*
1.	Mongolia	64.0
2.	Sri Lanka	60.3
3.	New Zealand	59.4
4.	Malaysia	59.1
5.	Australia	58.6
6.	USA	58.4
7.	Philippines	57.5
8.	Indonesia	52.1
9.	Republic of Korea	51.3
10.	China	51.1
11.	Vietnam	49.7
12.	Japan	49.2
13.	India	49.1
14.	Lao	47.0

Source UNESCO, Institute of Statistics (2016)

that in the main that generalization holds. In no country are females a majority of enrollees in engineering, manufacturing, and construction

Table 3.7 Percentage of female students enrolled in programs

Country	*Education*	*Hum and Arts*	*Soc.Sci, Bus, law*	*Science*	*Eng, Manu, Const*	*Agriculture*	*Health and welfare*	*Service*
Australia	78.3	60.4	55.2	36.0	20.6	57.8	74.7	55.7
India	58.2	54.3	48.5	45.9	28.1	26.7	57.2	80.7
Indonesia	64.3	56.5	46.8	37.9	35.6	37.8	71.9	35.1
Japan	66.0	66.1	36.8	25.3	12.2	40.9	60.2	80.3
Lao	58.6	50.8	49.0	34.3	12.8	36.1	60.2	57.2
Malaysia	71.7	60.3	63.2	53.6	36.1	61.3	71.4	57.6
Mongolia	81.7	69.7	64.5	41.1	30.6	56.4	80.0	28.0
New Zealand	81.7	62.0	57.2	40.9	25.6	62.1	77.7	45.7
Philippines	75.0	51.8	65.2	45.8	29.6	51.2	72.2	26.0
Korea	68.7	57.1	40.0	31.1	17.9	33.6	63.0	33.1
Sri Lanka	69.0	78.4	46.8	48.6	27.0	57.4	63.8	n/a
Thailand	68.6	60.9	60.6	55.5	28.2	53.1	74.2	70.8
USA	77.3	55.9	54.3	40.3	15.1	46.4	78.7	50.2
Vietnam	54.8	50.5	52.4	n/a	34.0	45.8	47.6	16.8

Source UNESCO, Institute of Statistics (2016)

Table 3.8 Percent graduates who are female by field

Country	*% grad Ed Prog*	*% grad humanities*	*% Soc. Sci, Bus, law*	*% science*	*% Eng, Manu. Const*	*% Agri*	*% health and welfare*	*% services*
Australia	75.2	62.4	56.3	37.0	22.6	51.2	77.7	79.3
India	59.6	52.7	50.4	48.2	30.1	25.6	57.7	77.8
Indonesia	62.4	56.5	47.9	38.9	34.7	38.1	71.6	35.9
Japan	71.6	68.8	39.2	25.2	12.7	39.6	63.6	76.4
Lao	49.6	52.1	53.1	35.9	17.4	33.1	64.9	60.4
Malaysia	71.5	62.4	69.3	61.6	35.7	54.7	73.6	61.8
Mongolia	83.5	75.1	66.6	43.3	39.1	63.2	84.3	30.2
NZ	83.6	63.0	56.9	39.1	27.4	69.3	78.1	48.6
PI	75.5	52.4	66.2	52.2	29.9	51.6	72.3	27.0
R. Korea	76.9	67.9	49.8	39.3	24.0	41.0	72.4	48.8
Sri Lanka	66.4	74.0	48.2	48.7	23.1	58.2	57.7	n/a
USA	78.0	59.8	55.8	40.3	19.3	50.6	81.2	53.1
Vietnam	57.3	64.4	55.7	n/a	35.1	45.0	58.5	17.6

Source UNESCO, Institute of Statistics (2016)

(the preferred UNESCO categories of data gathering), and in only two, Malaysia and Thailand, do they constitute a majority in science enrollment. Their dominance in education is near overwhelming, as it is in health and welfare and service categories and very mixed in agriculture (of which more later in this chapter).

Enrollment, of course, is also importantly succeeded by graduation data: What proportion of graduates in such fields are female? These data are presented in Table 3.9. Here, the relatively high percentage of female graduates in education, humanities, social science-business-law, health, and welfare is dominant (with some exceptions), but completion rates vary in individual instances as demonstrated in Table 3.9 the data of which allow one to compare dropout rates by field and/or relative success in persistence and completion. Here with a very few exceptions (e.g., science completion in Malaysia and agriculture in Korea), we can see that completion rates across the board track very closely with overall participation rates.

Table 3.9 Comparison of % female enrollment in selected fields with % female completion

Country	*% female enrollment Science*	*% female graduate Science*	*% female enrollment Eng/Man/ Const*	*% female completion Eng/Man/ Const*	*% female enrollment Agriculture*	*% female completion Agriculture*
Australia	36.0	37.0	20.6	22.6	57.8	51.2
India	58.2	48.2	28.1	30.1	26.7	25.6
Indonesia	37.9	38.9	35.6	34.7	37.8	38.1
Japan	25.3	25.2	12.2	12.7	40.9	39.6
Lao	34.3	35.9	12.8	17.4	36.1	33.1
Malaysia	53.6	61.6	36.1	35.7	61.3	54.7
Mongolia	41.1	43.3	30.6	39.1	56.4	63.2
NZ	40.9	39.1	25.6	27.4	62.1	69.3
PI	45.8	52.2	29.6	29.9	51.2	51.6
R. Korea	45.8	39.3	24.0	17.9	41.0	33.6
Sri Lanka	48.7	48.6	23.1	27.0	58.2	57.4
USA	40.3	40.3	15.1	19.3	56.4	50.6
Vietnam	n/a	n/a	34.0	35.1	45.8	45.0

Source UNESCO, Institute of Statistics (2016)

Reviewing Gender Barriers Within Higher Education

A recent study of gender issues in South Asia entitled, "Women in Higher Education Leadership in South Asia: Rejection, Refusal, Reluctance, Revisioning," by Louise Morley and Barbara Crossouard of the University of Sussex (2015), has provided an unusually comprehensive framework for investigating the state of gender disparities within higher education, and because of this comprehensiveness, I have used it as a template to suggest both the nature of critical questions to raise regarding the investigation of gender bias and as a particularly good data source for this particular area. My purpose is to advocate for it as a template for similar research to be conducted within a broader reach of Asia Pacific higher education.

Their findings focus on policy issues, barriers to women's leadership, and enablers. In sum, *seven policy issues* emerge:

1. A poor record on gender equality—five of the South Asian countries in their study (Bangladesh, India, Nepal, Pakistan, and Sri Lanka) rank between 68 and 141 in the gender equity rankings.
2. Gender is often an absent category of analysis unless it refers to participation rate of students.
3. The dominant language of higher leadership discourses often excludes gender, yielding instead to references to the knowledge economy and language focused on quality assurance, good governance, internationalization, the digital economy, widening participation, and STEM issues, a consequence that they label "quality rather than equality" (2015, 8).
4. When gender issues do arise, they tend to be in the absence of considerations for "strategic management" of their implementation.
5. An absence of gender-disaggregated statistics at the country and regional level.
6. An absence of data on linear trends at the country or regional level that would promote effective policy discussions about gender.
7. An absence of "research-based evidence" to inform policy discourse on gender (2015, 8).

This framing is then followed by a discussion of *nine barriers to gender equity and equality* within regional higher education.

1. *The power of the sociocultural.* The predominance of enduring social-cultural beliefs, discourses, and practices continues to constitute barriers within higher education, e.g., "Societies have potent messages about what is considered appropriate behavior, e.g. women should not be in authority over men" (2015, 9).
2. Social class and caste interact with gender to determine which women are deemed appropriate to enter leadership positions; the research indicated that opportunity was most often associated with "urban elite families" (2015, 9).
3. *The lack of investment in women.* This item focuses on the "absence of structured investment" in women's leadership (2015, 9).
4. *Organizational culture.* Studies emphasize the "patriarchal nature" of higher education institutions, which comes to be experienced as "gender discrimination and bias" and in extreme forms as "gender biased violence (symbolic and actual) on HEI campuses" (2015, 9).
5. *Perceptions of leadership.* Many women in the study viewed "leadership" as a detraction from their commitment to research and scholarship. Respondents also pointed out the lack of appropriate leadership training for women.
6. *Recruitment and selection.* Some respondents to the study emphasized the precarious nature of the leadership process. "The appointment of leaders was often a political process … which required lobbying and the construction of highly visible public profiles. This often worked against women who were excluded from influential networks and coalitions because of their sex, domestic responsibility, or codes of sexual propriety" (2015, 9).
7. *Family.* Family can play multiple roles. Family obligations are often cited as limitations to the pursuit of leadership, but also can be a source of support for aspiring candidates.
8. *Gender and authority.* Leadership is often associated with particular masculine characteristics (competitive, ruthless, and politically networked), leading many women to not conceive of themselves as leaders.
9. *Corruption.* The close association of leadership positions with notions of corruption (either as leaders being vulnerable or susceptible to it) tends to act as a barrier, as does the presumption in many circles that leaders necessarily must have gained their positions "via corrupt practices" (2015, 10).

On the other hand, the authors were also able to extract from their interviews a set of enabling practices or situations that may promote gender equity.

1. Internationalization can provide multiple opportunities, including mobility, networks, and research partnerships.
2. Various institutional practices can promote equity including affirmative action, work/life balance, and family-friendly interventions.
3. Women-only leadership courses can promote development and an expanded understanding of "appropriate theoretical and research-informed" approaches to leadership especially when provided by senior women academics (2015, 10).
4. Mentoring programs at multiple organizational levels.
5. Gender sensitization programs. Such programs can go beyond a mere iteration of barriers and promote an "understanding of how gender differences are produced and maintained in social and organizational practices" (2015, 10).
6. Private higher education. The data are mixed on how the provision of private higher education can promote gender balance, but some data suggest that the rise of women-only institutions (in this research area) work to transform a variety of discourses concerning gender.
7. Professional development programs that focus on promoting gender engagement and equity (2015).

I cite this study at length for three reasons. First, this type of research deserves to be conducted within higher education environments throughout the Asia Pacific region to broaden our understanding of how gender issues are insinuated within these similar but differing national social and cultural settings. Second, the conduct of such research can significantly inform policy discussions on how gender equity and equality may be promoted, but the logic of the policy process mandates that greater knowledge of the manner in which gender is currently conducted throughout higher education is a necessary precursor. Third, the more such research is conducted, it would seem, the more likely the very fact of doing it can serve to "normalize" gender relations within higher education structures.

Where such studies are being conducted on higher education leadership, the data tend to be remarkably similar indicating that in a variety

of countries, such as Malaysia where women achieve relative parity in gaining access to higher education, their relative exclusion from leadership roles persists. In her study of Malaysian higher education, Carmen Luke, for example, determined six factors at play in the relative absence of women from Malaysian higher education leadership:

1. Women's difficulties in balancing professional careers with family and domestic responsibilities;
2. Cultural values that maintain double standards for men and women in public life;
3. The prevalence of male academic culture that shuts women out;
4. Women's reluctance to self-promote their abilities and achievements which can make them institutionally invisible;
5. Women's exclusion from the politics of appointments at the most senior levels; and
6. Chinese and Indian women's perceptions of "ethnic concrete ceilings" (Luke 2001).

And whereas Luke's work is somewhat dated, the general thrust of its conclusions has more recently been reaffirmed in a general way in a European context by Saeeda Shah whose review of women's roles in senior research and leadership positions in higher education reached remarkably similar conclusions, despite the time gap. Citing an EU study of 2008, she emphasizes the following findings:

- Women are underrepresented in practically all decision-making bodies, and at the professor/Grade A level in general, and have less access to decision-making positions than men.
- The average percentage (15% 2004, EU-25) of women in senior academic positions in the Member States is considerably lower than the overall percentage for all women in all academic positions (36%).
- Fewer than expected numbers of women rising to decision-making positions indicates an under-use of qualified human capital, which cannot help but affect the goal of excellence (Shah 2014).

Quite similar findings have been reported in a Virginia Tech study of Agriculture, Education, and Training (AET) programs that ranged from a general survey of gender issues within this field across the globe with

follow-up studies at a regional level and case studies in Bangladesh and Cambodia by Zseleczky, Houweling, and Christie (2013). Utilizing the same UNESCO data sets that are cited earlier in this chapter, they focus on the sharp drop-off of female participation from the matriculation level to that of research and leadership.

> At the professional level, women only comprise about 20% of agricultural researchers in developing countries …. These female researchers consistently hold lower degree qualifications than male researchers. While the numbers are nearly equal at the masters' level, 23% of women scientists hold PhD degrees compared to 35% of men. Women face a range of constraints in their professional environments. These include: exclusionary networks that make it difficult for women to access research teams or grants and funding; male-dominated review and promotion committees with bias that may prevent women from winning funding or receiving objective reviews; lack of networks of female peers and role models; and difficulties maintaining a work-life balance when prevailing norms burden women with double responsibilities for work and caring for the family. (Meinzen-Dick et al. 2011)

Following their review of AET training programs, Zseleczky and her colleagues provide a quite compelling list of "good practices" that can be employed both to attract more females into not only agriculture, but a variety of academic programs that have been male dominated. These have been modified slightly and included in Table 3.10 to facilitate developing a broader view of the advisability and appropriateness of similar programs across a variety of academic settings.

Other Gendering Practices in Higher Education

Before concluding this brief survey of gender issues in higher education, I would like to point to two other recent studies that suggest how gender bias can be created and maintained in more subtle ways through the "conventional mechanisms" of conducting the "normal work" of higher education as a structure and set of practices.

The first involves the important issue of how women participate in academic conferences and publishing practices that are almost universally underscored by academic administrations as critical to creating sustainable gender opportunities and balances within higher education structures. In September 2016, Jack Grove reported on the enduring

Table 3.10 Recommendations and good practices for addressing gender disparities in agricultural programs in higher education

Recommendation	*Good practices*
Increase opportunities for women to enter and progress through higher education in agriculture	• Offer scholarships to female agricultural scientists • Offer pre-entry remedial programs targeted at women and other disadvantaged groups • Develop flexible PHD programs that work with women's schedules
Address safe concerns	• Encourage female extension workers to travel in teams • Construct on-campus housing for women • Create a clear sexual harassment policy • Educate students and staff about sexual harassment • Provide secure living facilities for women working in rural areas
Create gender sensitive facilities at the University	• Offer childcare facilities on or near campus • Construct on-campus housing for women • Construct safe and reliable sanitation facilities
Promote gender sensitive government policies in higher education	• Work with ministries of gender, education, or social development to address gender issues in higher education • Develop sectoral gender policy to provide a framework for integrating gender at all education levels • Create a monitoring and enforcement committee to ensure that the policies are enacted
Awareness raising of agriculture careers targeted at girls	• Conduct presentations to dispel myths associated with agricultural careers and the idea that agriculture is a male profession • Use successful female professionals as positive role models • Popularize agriculture as an appropriate profession for women beginning in primary school and break the myth of agriculture as a male profession • Conduct outreach efforts with parents to encourage them to send their daughters to school

(continued)

Table 3.10 (continued)

Recommendation	*Good practices*
Mainstream gender in University	• Appoint a gender focal point person in each department • Develop a gender and diversity policy accompanied by an implementation strategy • Undertake a policy audit for gender sensitivity • Establish a policy on maternity leave • Establish quotas for female faculty members and students • Develop monitoring systems to track the participation and performance of all groups • Develop gender sensitive curricula • Include gender specific career tracks for female agricultural scientists in the curriculum • Create an undergraduate course on gender issues in agriculture • Develop a center for female students to receive counseling, healthcare, and information in a supportive environment • Establish a student mentorship program with professional female scientists
Build staff and student capacity in gender and diversity	• Require gender and diversity seminars for staff and faculty • Conduct in-service seminars with science and agricultural teachers to raise gender awareness

Source Adapted from Zseleczky et al. (2013)

nature of what has come to be called the "Matilda Effect"—evidence that presentations and papers by females tend to be evaluated more harshly by peer reviewers in male-dominated professions, and the finding that "women are more likely to be accepted to speak at academic conferences if applications are anonymized to remove any mention of their gender" (Grove 2016). Further, those papers with a female first author were "viewed more positively" once reviewers were denied clues to the applicants' gender. Of equal interest is the fact that "those papers with

a male first author scored far worse once a 'double-blind' review process was introduced to conceal the identities of the authors and their referees." These findings also reported that: "Young people also do better under double-blind reviewing as they are recognized for the quality of their work rather than winning credit just for their name and reputation" (Grove 2016). The importance of this study should not be minimized given the relative importance that is placed on the ability of women academics to demonstrate that they are "equal to" their male counterparts in academic settings.

The second example takes on a similar cast. A 2012 study found that scientists reviewing nearly identical applications for a lab-manager position "were more enthusiastic about identical applications" when a generic male name was associated with the application than when the name was female (Flaherty 2016). Subsequent research sought to determine whether these kinds of biases were also likely to be present in the review of letters of recommendation. A more recent study found that "women are only about half as likely as men to receive letters containing language that describes them as excellent, rather than good." The research was prompted by a study of women in the geosciences and the concern that whereas they make up 40% of doctoral degrees, they hold less than 10% of full professorships. Labeling their study "damning with faint praise," the authors reviewed a large set of adjectives and phrases used in letters of application to reach the conclusion that male recommendations were consistently more favorable. Kuheli Dutt, lead author of the study, remarking on parallel studies of the language employed by students in evaluating their professors that found a similar bias toward male professors, has concluded: "… we need to address any hidden biases that systematically disadvantage one or more segments of the population. And since postdoctoral years are the early career years for geoscientists, women are potentially disadvantaged right from the beginning of their careers" (Dutt, cited in Flaherty 2016).

This brief review of several relevant studies of academic gender bias is offered as a starting point for further research and discussion to develop a firm understanding of the dimensions of these phenomena throughout the Asia and Pacific region and then to venture beyond such emphases to develop policies and practices that lead both to gender equality and equity.

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CHAPTER 4

World-Class Universities and Female Leadership in the Academic Profession: Case Studies of East Asian Higher Education

Hei-hang Hayes Tang

The underrepresentation of female academics in intellectual leadership is a global phenomenon (e.g., Bain and Cummings 2000; Kjeldal et al. 2005; Kim et al. 2010; Aiston 2014), with East Asia hardly as a curious exception. Notwithstanding significant rise of female student enrollment at undergraduate and postgraduate levels (Bradley 2000; Lam 2006), more male than female academics are still found in the academic professions. In many higher education systems, female academics cannot make up even one-fifth of the professoriate (Bain and Cummings 2000). Female academics are more commonly working in a position, including a teaching-focused post, at the lower levels in rank and office. Male academics more likely fill in the senior and leadership roles of the academic professions worldwide (Kim et al. 2010). The gender imbalance problem is more seriously the case at senior management levels than middle

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management levels (UNESCO 1993). Apart from academic ranks, gender inequity in the academy is also demonstrated by the unequal distribution of female academics in regard to institutional prestige (Eliou 1991; Johnsrud 1995). Bradley (2000) argues that female academics remain segregated into "female" areas and they are underrepresented across academic workforces.

This chapter examines women's representation in the leadership positions at key world-class research universities in the Asia Pacific region. It engages with documentary research into the case studies of various Asian flagship universities, namely National Taiwan University (NTU), Peking University (PKU), Seoul National University (SNU), the University of Hong Kong (HKU), and the University of Tokyo (UTokyo). The documentary research is based on an in-depth review of the academic literature comprising empirical studies, which investigate and explain the representation of women academics and their involvement in intellectual leadership at Asia Pacific higher education institutions. Special attention is paid to the significant factors that structure female engagement in leadership roles. The determinants that either facilitate or impede the women's representation in academe and senior managerial positions will be reviewed to make sense of the empirical findings of this study.

Reviewing the Literature of Female Leadership in the East Asian Academic Profession: Key Findings and Arguments[1]

In this section, I review the academic literature of female intellectual leadership in the East Asian academic profession, with reference to the higher education and sociocultural systems where the case-study world-class/flagship universities are located. Significant findings from the literature which cover the cases of Hong Kong, Japan, People's Republic of China, South Korea, and Taiwan are encapsulated, followed by a synopsis of the key arguments derived from the empirical scholarship. We will start with the case of Hong Kong, reviewing the related existing research and discussing its unique circumstances.

Hong Kong is one of the higher education systems well known for the concentrated presence of "world-class universities." In the age of globalizing academic capitalism, Hong Kong's higher education institutions,

especially research-intensive universities, have been entrepreneurial in participating in world-class ranking systems. In her 2014 study, "Leading the Academy or Being Led? Hong Kong Women Academics," Aiston claims that the academic profession industry is fundamentally gendered in such a manner that masculine competencies and skills are usually rewarded. In a critical view, she suggests that the Hong Kong academic profession is a "greedy" profession and that it demands time commitment of its academic staff around the clock. When "24/7 dedication" is the norm for prolific academics with high level of performance and success, women staff, who are culturally expected to be accountable for family affairs, face structural limitations to time and energy commitment in a focused fashion (Aiston 2011). Regarding the budgeting of professional time, Hong Kong women senior academics spend one-tenth more of their time on teaching and instruction than their male counterparts do, while an extra 17% teaching time is needed by junior women professors (Aiston and Jung 2015). However, it is common to find working professional families/couples hiring full-time domestic helpers who stay with the families they work for; this makes Hong Kong female academics less disadvantaged, in comparison with their counterparts in East Asia (Aiston 2014, 64).

Women academics who take up a leadership role in Hong Kong's academia often feel isolated, pressured, and not trusted (Luke 1998). In a committee that is composed of mainly male members, a new colleague who is the first and only female member of the committee is usually questioned about her speech and behavior, competence, and trustworthiness by other members. Acting the gatekeeping role, the predominantly male committee reacts in such a way to safeguard the ability of the new members who join the leadership team (Luke 1998).

Similar to the case of Hong Kong, it is found in Japan that female academics at senior ranks contribute 41% more of their time on teaching than their male colleagues do. This gendered disparity in conducting a meaningful academic life may partly explain why female academics have lower research productivity (Aiston and Jung 2015, 215). Notwithstanding the fact that different orientations for teaching and research can be considered an individual preference and professional judgement, research productivity and portfolio are still the key indicator or "currency" of scholarly achievement in the "prestige economy" in global higher education (Morley 2013; Aiston and Jung 2015).

As a way to play out their Japanese national spirit and patriotism, "archetypal" Japanese citizens are submissive to the gendered division of labor (Mackie 2002). Japanese male citizens tend to resist, while women citizens are likely to be resigned when they come across ideas different from the archetypical discourse, for example the advocacy of female leadership (Usui et al. 2003, 96). The traditional gendered notion of "good wife, good mother" becomes a moral standard of "correctness." This cultural expectation refrains women from thinking autonomously about their aspirations and career choices at leadership levels.

Members of the Japanese academic profession are expected to commit about 70 hours every week to research on top of other academic tasks, and Japanese women scientists always encounter challenges in balancing their professional and domestic responsibilities (Homma et al. 2013).

In the Chinese tradition, it is a virtue for women to hold their abilities in low regard and hence the performances of men are demonstrated comparatively higher than those of women in various aspects. Chinese female academics may have lower self-esteem, leading them to be less capable of breaking through a subordinate position within their profession. Among the issues of gender discrimination specific to the academic profession of the People's Republic of China, gender-biased retirement policies are particularly problematic (Zhang 2000; Rhoads and Gu 2012). The retirement age for women academics in China is 55 (for women at the professorial level the retirement age is 60), whereas their male counterparts need not to retire until the age of 60. Regardless of the fact that some female scholars have gained substantial experience in academia and can attain a higher productivity level, they cannot but retire at the peak of their academic life. In this way, Chinese women academics are deprived of the equal opportunities for full professional development because they are not entitled to effective competition equal to that of their male colleagues (Zhang 2000).

In the case of South Korea, female academics consider being a professor a matter of considerable prestige. All the same, the family commitment of academic women is as heavy as that of other full-time housewives in the Korean society (Pang 1993). Male professors do not encourage the access of females into key leadership positions within the Korean academy (Johnsrud 1995, 6, 32). Women academics are problematically not regarded as colleagues or academic peers within the academic profession of South Korea (Min and Huh 1998; Kim et al. 2010). Consequently, female academic professionals are seen as "less

appropriate" by their Korean male counterparts (Shin 1981; Yu-Tull 1983; Pang 1993), who create a "chilly climate" toward female academics (Riger et al. 1997; Kim et al. 2010). Not being included in the male professors' "old boys: networks," Korean female professors are not always well-informed of "insider" information and "tricks of the trade" in the academic game. In their article "Trailblazing Women in Academia: Representation of Women in Senior Faculty and the Gender Gap in Junior Faculty's Salaries in Higher Educational Institutions," Lee and Won (2014, 331) confirmed the trend that female academics are less likely to be tenured or promoted. In the face of gender-related issues within their profession, Korean female academics, in a comparative and subjective light, perceive that they are less competitive than their female peers within the American academic profession (Cheong 1982; Shin 1981; Pang 1993), while Korean male academics are ambitiously pursuing status, power, and prestige for their career advancement.

Among the East Asian higher education systems, Taiwan has attained comparatively better progress with regard to gender and intellectual leadership (Chen 2008, 332), especially as indicated by the presence, namely around 5%, of female presidents across a hundred Taiwan's universities (Chen 2011). A number of Taiwanese female professors came together and resisted the intensifying managerialism in Taiwan's academic profession, namely expressing their reluctance to adjust their own research agendas to follow the strategic planning of their own institutions or funding agencies (Chen 2008).

Based on the key findings of representative research, I present below a synopsis of the main arguments derived from these empirical studies.

Argument 1.0: Confucianism advocates that a gendered division of labor is helpful to construct a good and harmonious society. Most academics and their families still take this value as important to their everyday cultural practices. In East Asian higher education contexts, there is a cultural expectation that male academics should take up the main leadership roles (Luke 1998; Kloot 2004).

Argument 2.0: Wives and mothers are still assumed to bear the full responsibility in domestic affairs in spite of feminization among Asian workforces. As for the academic profession, female staff bear dual responsibilities because of gender stereotypes and bias (Johnsrud 1995; Luke 1998; Rhoads and Gu 2012; Homma et al. 2013). Compared to male academics, women scholars have less efficiency of academic time

use, including that for research and publication commitments that require more self-initiation and discipline for focused efforts.

Argument 3.1: Academics socializing around the "old boys" networks can get more information and become better informed of the "tricks of the trade" within the neoliberal academy. As the rules of the game (including strategies for research collaboration and publication) and review processes and assessment standards for tenure and promotion usually lack sufficient transparency, "insider information" about the norms and strategic practices are useful for academics to fare along their career paths. With limited access to the male-dominated "old boys" networks, female scholars are restrained from becoming full members of the academic profession. It is found that female academics at junior levels are less familiar with the "game of the academy" (Chen 2008).

Argument 3.2: There is a shortage of mentorship tailor-designed for junior female academics (Fu 2015) and training for women intellectual management (Luke 1998). It is more desirable for women to be mentored by senior colleagues of the same gender. Women junior academics may find it easier to "model success" if they come across more senior professors with gendered experiences, aspirations, emotions, and subjectivities similar to their own (Lam 2006, 153). Inadequate mentorship for junior female colleagues is further implied by the underrepresentation of women academics at senior levels within the academic hierarchy, particularly in the areas of science, engineering, and technology (Siann and Callaghan 2001). The masculinist culture in higher education governance is reinforced by the lack of a critical mass of women leaders in the sector. When policies are formulated, they tend not to focus much on women's perspectives and concerns. The vicious cycle impedes career mobility of East Asian women academics.

Argument 4.0: In turn, female academics internalize the barriers, impediments, and biased treatments, which they both encounter and perceive. Their aspirations and actions in leadership advancement are affected by such internalization (Heilma 2001; Cubillo and Brown 2003; Eagly and Carli 2007). The gender stereotypes within intellectual leadership (Nguyen 2013) shape social interactions and the way in which higher education management is practiced. The predominance of a masculinist culture within mainstream intellectual leadership does not attract women academics to enthusiastically overcome the prevailing hurdles of access to intellectual leadership across East Asian universities.

In retrospect, it is found that a majority of the previous research on women intellectual leadership focuses on the perceptions and worldviews of female academics with regard to gender, university management, and the academic profession. There is a significant lack of empirical research that systematically assesses the level of representation of women academics in leadership positions, including those within the East Asian academic profession. This chapter aims to contribute to the related literature by presenting relevant empirical findings, preliminary explanations, and research recommendations.

Research Questions and Case-Study Methodology

Three key research questions informing this research are: (1) What is the overall representation of women academics in leadership positions at East Asian world-class universities? (2) What is the pattern of women's presence in leadership positions at institutional, faculty/school, and department levels? (3) To what extent are gender and intellectual leadership related to disciplinary affiliation within science, technology, engineering, and math (STEM) and non-STEM fields? To answer these research questions, the remainder of this chapter engages with documentary research into the case studies of the world-class/flagship universities in Asia Pacific, namely National Taiwan University, National University of Singapore, Peking University, Seoul National University, the University of Hong Kong, and the University of Tokyo. Official websites/webpages of the case-study universities and the individual women leaders were assessed, especially for collecting representative demographic data. The data collection was conducted in August 2017, therefore the empirical findings presented here capture the governance arrangements and demographic data of that period.

From those data sources, I summarize the relevant institutional histories and characteristics of the case-study universities in the following.

Peking University (PKU)

As a symbol of Chinese modern higher learning, PKU was the first national comprehensive university in China, founded in 1898. Being notable for its higher education across a diversity of disciplines, the University—alongside its missions in service of patriotism, progress, democracy and science—has been playing an indispensable role of

pioneering mainland China's socialist modernization. For decades, it received substantial support from the Chinese national government to scale new heights in research and education, especially for its aspiration to become a world-class university in the twenty-first century. With the inclusion of more than 70 members from three renowned academic institutions in scientific and engineering fields (namely Chinese Academy of Sciences, Chinese Academy of Engineering, and Third World Academy of Sciences), PKU is committed to conduct scientific research as well as to train a pool of graduates with professional knowledge and skills in various areas of study.

Seoul National University (SNU)

Established in 1946, SNU offers the academic home for more than 5000 academic staff on the biggest campus in Seoul with 16 colleges, 1 graduate school, and 10 professional schools. Being the first national university of South Korea, SNU is dedicated to embrace students and academics from diverse backgrounds, encourages international exchange, and promotes groundbreaking research among various disciplines and fields. On top of the substantial undergraduate population with 16451 students, the number of postgraduate students at master's level and doctoral level amounts to 8120 and 9807 respectively.

National Taiwan University (NTU)

NTU was established in 1928 at the time when Taiwan was under Japanese colonial rule. Founded by the Japanese colonial government, Taihoku Imperial University was the predecessor of NTU. Soon after the end of the war between the Republic of China and Japan, the university became officially under Taiwan's administration and was renamed National Taiwan University. NTU comprises 11 colleges, 54 departments, 108 graduate institutes, 48 university-level research centers, and several international and national research centers.

The University of Hong Kong (HKU)

Branded as "Asia's Global University," HKU has chosen to focus its expertise within the academic endeavors of internationalization and innovation through interdisciplinarity. Enjoying its strategic position

geographically and culturally between East and West, it has attracted globally renowned scholars and promising young academics—attracted from different parts of the world and nurtured at HKU, who have made social contributions and impacts in Hong Kong, mainland China, and throughout the world. Since its establishment in 1912, HKU has been the only English-medium, research-intensive comprehensive university in China. HKUs predecessor was the Hong Kong College of Medicine, where Dr. Sun Yat-sen, regarded as the founder of modern China, studied in its early years. In its second millennium, HKU aims at creating new knowledge and innovative methods to enhance understandings of Asia and other international issues from comparative and global perspectives.

The University of Tokyo (UTokyo)

As the first national university in Japan established in 1877, UTokyo is a leading research university targeting research across disciplines and delivering programs at both undergraduate and graduate levels across a wide variety of subjects and fields. It seeks to be a world-class platform for research and education, in contribution to human knowledge in the manner of other world-class universities. By offering a vibrant and rich academic environment that maximizes the opportunities for acquiring disciplinary and professional knowledge as well as generic skills, UTokyo aspires to nurture global leaders with a pioneering spirit and deep commitment to social responsibility.

Women's Presence in Leadership Positions in East Asian World-Class Universities: A Multilevel Analysis

Among these case-study flagship universities in East Asia, women's participation in leadership in general accounts for less than one-third of such positions. HKU has the highest representation of women leaders (28.9%), followed by NTU (24.6%). In the middle of this group of national flagship universities, female academics take up 17.1% of the leadership roles at PKU. At the lower end, there are SNU and UTokyo which have only 3.5% and 4.2% of their female colleagues leading the academy respectively (Table 4.1).

Table 4.1 Case-study universities as world-class universities in East Asia

Country/area	*University*	*Overall % of female leaders*	*Rankings*	
			QS '18	*Shanghai ARWU '17*
China	PKU	17.1	38	71
Hong Kong	HKU	28.9	26	101–150
Japan	UTokyo	4.2	28	24
Korea	SNU	3.5	36	101–150
Taiwan	NTU	24.6	76	151–200

In contrast, at HKU, women constitute 14.3% of all leaders at institutional level. Moving down the institutional hierarchy, the presence of female academics is improved as they make up more than one-fifth of the leaders (22.4%) at the faculty/school level. Compared to the faculty/school level, the percentage of women leadership at departmental level is almost doubled, accounting for 41.5% of the pool. Unlike HKU, there are no female leaders at the institutional level in PKU. The proportion of women in leadership is more or less the same at the faculty/school and departmental levels, amounting to 16.7 and 18.8%, respectively. While there are no women participating in the institutional leadership at NTU, female academics do hold about one quarter of the leadership positions at faculty/school (24.4%) and departmental levels (25.3%). Displaying a profile very similar to that at PKU and NTU, institutional leadership at SNU is heavily biased toward male academics. The percentage of female participation in faculty/school and departmental leadership are 1.5% and 7.1%, respectively. Across the five case-study universities, presence of women leaders increases while moving down the institutional hierarchy, except for UTokyo. Most female leaders at UTokyo are found at the institutional level (12.5%). The faculty/school level includes no women leaders, while only 6.4% of all department heads are women (Table 4.2; "N" in blacket indicates the total number of female and male leaders).

Female academics who take up leadership roles are more likely to possess a non-STEM background, except in the cases of Seoul National University and Peking University. All female leaders at SNU (3.5% of all leaders) are from a STEM background, and there are slightly more STEM-related women leaders at PKU (9.8% of all leaders) than their counterparts from non-STEM fields (7.2% of all leaders). No female

Table 4.2 Presence of women leaders at various levels

	HKU	*PKU*	*NTU*	*SNU*	*UTokyo*
Institutional level	14.3% *(N = 7)*	0.0% *(N = 8)*	0.0% *(N = 4)*	0.0% *(N = 7)*	12.5% *(N = 8)*
Faculty/school level	22.4% *(N = 85)*	16.7% *(N = 221)*	24.4% *(N = 41)*	1.5% *(N = 65)*	0.0% *(N = 31)*
Departmental level	41.5% *(N = 53)*	18.8% *(N = 117)*	25.3% *(N = 166)*	7.1% *(N = 42)*	6.4% *(N = 31)*
Overall	28.9% *(N = 145)*	17.1% *(N = 346)*	24.6% *(N = 211)*	3.5% *(N = 114)*	4.2% *(N = 70)*

STEM-related academics take leading roles at the institutional level in all the sample universities: women institutional leaders at HKU (14.3%) and at UTokyo (12.5%) are from non-STEM backgrounds (while there are no female institutional leaders at PKU, NTU and SNU).

For female leaders at the faculty/school level, the data indicate that all female academics at the faculty/school level at SNU have STEM backgrounds (1.5% of all leaders). Among female leaders at the faculty/school level, academics with STEM background generally constitute about half or less, except for the case of SNU, (all female faculty/school heads are from STEM backgrounds) and UTokyo where no female academics are found at the faculty/school level.

Female leaders at the departmental level mainly have non-STEM backgrounds except at SNU and UTokyo. All female leaders at the departmental level at SNU (7.1%) have STEM backgrounds, while the percentage of female department heads with STEM backgrounds (3.2%) are the same as those without (3.2%) at UTokyo. Across the five case-study universities, women leaders with STEM backgrounds are more often found at the departmental level than at faculty or school level. At SNU, all female department heads at SNU are from STEM backgrounds. More research needs to be done to confirm whether it is more likely to take intellectual leadership if female academics are from STEM backgrounds (Table 4.3; "N" in blacket indicates the total number of female and male leaders).

Table 4.3 Presence of women leaders from STEM and non-STEM backgrounds

	HKU	*PKU*	*NTU*	*SNU*	*UTokyo*
STEM background (overall)	9.0% *(N = 145)*	9.8% *(N = 346)*	11.4% *(N = 211)*	3.5% *(N = 114)*	1.4% *(N = 70)*
At institutional level	0.0% *(N = 7)*	0.0% *(N = 8)*	0.0% *(N = 4)*	0.0% *(N = 7)*	0.0% *(N = 8)*
At faculty/school level	5.9% *(N = 85)*	8.6% *(N = 221)*	9.8% *(N = 41)*	1.5% *(N = 65)*	0.0% *(N = 31)*
At departmental level	15.1% *(N = 53)*	12.8% *(N = 117)*	12.0% *(N = 166)*	7.1% *(N = 42)*	3.2% *(N = 31)*
Non-STEM background (overall)	20.0% *(N = 145)*	7.2% *(N = 346)*	13.3% *(N = 211)*	0.0% *(N = 114)*	2.9% *(N = 70)*

Discussion and Conclusion: Toward Inclusivity of Intellectual Leadership in the East Asian Academic Profession

This chapter has assessed and presented patterns and variations in women's presence in leadership positions across the five East Asian world-class universities included in this case study. The findings indicate that HKU has the highest representation of women leaders (28.9%) who are mainly from non-STEM backgrounds and are also most prevalent at the departmental level. HKU also has, among the five case-study universities, higher representation of female institutional leaders (14.3%). Another East Asian world-class university that has made better progress in gender equality and university management is NTU (24.6%).

The better gender equality and university management found at HKU and NTU are attributable to the relatively liberal sociocultural system that extends beyond the higher education system, which affects the creation of norms and practices within which social/gender relationships are framed and conducted. In particular, the division of labor for domestic responsibilities is less based on gender roles in a family. The example of Hong Kong is significant, in which there is a dominant expectation in which a family with professional employment will purchase the services of a full-time live-in domestic maid(s) (usually from Indonesia or the Philippines), to take major responsibilities for household chores (Aiston 2014, 64). The level to which domestic responsibilities pose an

impediment to women academics' professional involvement would not be as significant as their counterpart examples in Japan and South Korea. Yet interestingly at NTU, the cause of the discrepancy between STEM (11.4%) and non-STEM backgrounds (13.3%) is not clear as there is only a modest differential in women academic leaders from STEM backgrounds. The situation is more remarkable when compared to SNU where all the female leaders are from STEM backgrounds although they represent only 3.5% of the total leaders. These empirical findings all come to question the common gender stereotypes about STEM and intellectual leadership hence call for further research into the issues.

For working toward inclusivity of intellectual leadership in the East Asian academic profession, there needs to be more culturally sensitive and gender-appropriate policies and practices in the human resource management in universities, which are sensitive to the personal and professional lives, including marriage and family obligations, that constitute agency and power differently from those characteristic of taken-for-granted male worldviews (Tang 2017). The inclusion of more women professors in leadership positions can serve as much-needed role models for mentoring young female academics. Through better gender-informed and humanistic implementation of human resources management, women's credentials and their various capabilities and caliber can be capitalized upon with a view to enabling more inclusive and robust future transformations of East Asian world-class universities and the academic profession.

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Note

1. This section relies significantly on the literature review publication of the author (Tang 2017).

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CHAPTER 5

Gender Equity Instrumentalism and (Re)Building the Nation Through Innovation: Critical Reflections on Women in STEM Policy in Australia

Denise Cuthbert and Leul Tadesse Sidelil

Introduction

In this chapter, a critical lens is applied to recent research and innovation policy in Australia on the issue of women in science, technology, engineering, and mathematics (STEM). It is argued that the innovation agenda driven by successive Australian Federal governments over the last decade (2007–2017) has brought a renewed focus on women in STEM. This focus, while welcome, has been marked by a reframing of the issue away from a social justice and equity paradigm to a more instrumentalist innovation and knowledge economy labor force framework. Some implications of what we call the gender equity instrumentalism at work in policy discourse in Australia and elsewhere are then explored.

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Cautionary notes are drawn from feminist scholarship in the field of economic development and gender studies.

The narrative generated in recent Australian policy documents tells us that in order for Australia to make the transition from a commodities-dependent economy to one based on innovation and knowledge, more highly skilled STEM graduates are needed. Immigration has historically been the Australian answer to labor market shortfalls, including in STEM fields. As noted enviously by international commentators (National Academies of Sciences, Engineering and Medicine 2007, 19, 178–179), Australia's skills-based immigration programs have been highly effective in addressing STEM skills shortfalls in critical industries such as engineering for mining, but not without political fallout from rising neo-nationalist movements. However (as if newly discovered), it seems the nation has a home-grown human resource more readily at hand: women and girls whose low participation rates in STEM are part of the problem Australia now faces. If the nation and the economy are to be re-built through innovation, a means must be found to mobilise and then retain the STEM potential of this section of population. Women must be conscripted to do their part in the innovation economy.

This chapter proceeds in several sections. Following a brief overview of the issue of women in STEM internationally and in Australia, a synopsis of innovation policy initiatives in Australia is provided. This is followed by an examination of the instrumentalist reframing of the women in STEM issue within nationalist and global policy discourses. The chapter then turns to some insights from feminist scholarship on the 'woman turn' in economics and development discourses and asks what lessons may be applied to the renewed focus on gender equity in the STEM and innovation space. Our conclusions are tentative: we wait to see what current initiatives will deliver but remain skeptical about the commitment to meaningful gender equity in STEM when this is framed primarily as instrumental to national competitiveness and prosperity.

Australian Women in STEM

The low participation rates of women and girls in STEM have figured as a higher education policy problem at least since the 1990s (Blickenstaff 2005, 370). In the intervening decades, a voluminous research and policy literature—generated by researchers, disciplinary and professional associations, government agencies, global and regional policy agents,

and others—has emerged, outlining the dimensions of the problem and brokering possible solutions (Osborn et al. 2000; UNESCO 2000; Bell 2010; Pearson et al. 2016). Notwithstanding myriad efforts to tackle this problem and drive gender equity in participation and opportunity in STEM, the inequity persists and has most of the indicia of a wicked problem, particularly its resistance to solution and multiple intractable dependencies.

The Australian case is of a piece with the situation in other advanced industrialized nations. According to a report published by the Chief Scientist in 2016, the total STEM workforce, including those holding vocational STEM qualifications (Certificates and Diplomas) through to those holding Ph.D.'s, is 'highly skewed, with males making up 84 per cent of the total' (Chief Scientist 2016, 10). Australian data and studies show the same constellation of factors documented in the international research literature: fewer girls than boys pursuing mathematics at school, and hence fewer proceeding to higher education with the background for STEM (Bell 2010; Marginson et al. 2013; Chief Scientist 2016). Where they have the requisite background and complete STEM qualifications, women face myriad obstacles to pursuing both advanced studies and careers in STEM. These include the so-called chilly climate in many STEM fields for women, lack of female role models, lack of critical mass of other women for peer support, career interruptions due to family formation and care responsibilities regarding which non-inclusive research cultures may be unforgiving, overt and covert bias in career advancement, lack of support and mentoring from powerful men, everyday sexism, and other factors. A further factor which has erupted into public attention with the publication of a major report by the Australian Human Rights Commission (2017) is the high level of sexual violence prevalent on university campuses across the country, with women in STEM fields and higher degree by research candidates indicated as being in high risk groups. A chilly climate in STEM is one thing with which to deal; a culture of misogyny and sexual violence is another.

Australia as Aspiring Innovation Nation

Australian policy makers have been in the thrall of innovation discourse to varying degrees since the mid-1980s, and this has intensified since the late 1990s (Cutler 2008, vii). In the decade since 2007, Federal governments of different political complexions—the Labor Governments

of Kevin Rudd and Julia Gillard (2007–2013) and the Liberal Coalition Governments of Tony Abbott and Malcolm Turnbull (2013 to the present)—have articulated innovation agendas and initiated a range of policy initiatives in their support. Notwithstanding the political differences between the Labor and Liberal Coalition governments, their innovation strategies have been directed at driving the transition of the Australian economy from its historical dependence on extractive industries and commodities to one based on knowledge and innovation. The imperative is to replace the flagging and terminal mineral 'boom' with an 'ideas boom' (NISA 2015, n.p.):

> Australia is in its 25th year of economic growth but faces new challenges as the mining investment boom comes to an end. Innovation is critical to improving Australia's competitiveness, standard of living, high wages and generous social welfare net […] While historically high commodity prices have driven the growth in our living standards over the last decade, fostering innovation and commercialising ideas will be a key driver of future jobs and growth. (NISA 2015, n.p.)

Under the direction of Senator Kim Carr, head of the newly configured Department of Industry, Innovation, Science and Research (DIISR) in the Labor Government of Kevin Rudd (2007–2010), a greater level of conceptual sophistication was brought to innovation policy than had applied previously. Carr's ministry separated out the research functions from the university sector from the education functions and aligned these with industry and innovation in an effort better to support the systemic and cross-sectoral dynamics of innovation (Cuthbert and Molla 2015). He also brought a set of labor market analytics to the question of the population's capacity to drive innovation which in turn brought a critical lens to the nature of advanced research training in Australian universities, with an emphasis on the Ph.D. in STEM fields. As in other advanced HE systems, the STEM research effort is underpinned by international research students. This highlights both low demand from Australian students to pursue STEM research, and within this complex, the poor rates of participation of Australian women. While there is no scope in this chapter to explore the Carr innovation agenda in detail, it may be characterized as systems-focused driven by his understanding of innovation as a cross-sectoral and networked phenomenon. Gender-equitable participation in STEM, while an issue, was not given focused attention.

Carr's program was interrupted by political turmoil and finally by the electoral defeat of the Labor government in 2013. Innovation was not immediately a rallying cry of the newly elected Liberal Coalition government of Tony Abbott which came to office in September 2013. For Abbott's government, the rallying cry was stopping the boatloads of illegal immigrants/asylum seekers and securing Australia's sovereign borders. This electoral platform is arguably antipathetic to innovation given the dependence of the nation on skilled international labor including international research students in fields such as engineering. Nonetheless, some parts of the innovation platform articulated by the previous government—most particularly the national broadband network (NBN), a key pillar for the knowledge economy—were pursued. It was with the transition of the Prime Ministership from Abbott to Malcolm Turnbull in September 2015 that innovation again came to occupy center stage in Federal policy initiatives and public discourse. Turnbull came to office, famously expressing unbridled optimism for Australia's successful transition to the new economic norms of knowledge and innovation, announcing that there 'has never been a more exciting time to be Australian' (Turnbull quoted in *Daily Mail*, 2015, September 2015, n.p.) and confident that the Australian workforce possessed the agility, creativity, and innovation to assure a bright economic future for the nation. Very rapidly after taking office, a raft of innovation policies was announced under the banner of the National Innovation and Science Agenda (NISA 2015). While some of the initiatives under the NISA banner were repurposed and repackaged strategies from the previous government, NISA is significant for its emphasis on the issue of women in STEM which had not received concerted attention under Labor.

Reframing the Women in STEM Issue

As indicated, the issue of women's unequal participation in STEM occupies a prominent position in NISA. Drawing on schema promulgated by global policy agents such as the World Bank and the OECD, NISA identifies four pillars (or enablers) of innovation, and these are culture and capital; collaboration; talent and skills; and government as exemplar (NISA 2015). Within the talent and skills initiatives, the government includes strategies directed to women in STEM, supported by $13 million dollars of funding in 2016–2017.

> Only one in four IT graduates and fewer than one in 10 engineering graduates are women.
>
> Further, women occupy fewer than one in five senior researcher positions in Australian universities and research institutes, and around one quarter of the STEM workforce overall.
>
> We need a concerted, national effort to overcome the cultural, institutional and organisational factors that discourage girls and women from studying STEM, and that limit their opportunities to pursue careers in STEM and entrepreneurship. We can help address this challenge by encouraging greater gender equity in STEM organisations and STEM-based industries. We can also highlight the amazing stories of Australia's successful female innovators and entrepreneurs, and inspire all Australians to engage with STEM. (NISA 2015, n.p.)

A further degree of political urgency was added to the debate on women in STEM with the publication of the Chief Scientist's report on the STEM workforce in 2016. This report is usefully viewed alongside the earlier report *Unhealthy Science* (Dobson 2012) commissioned by the Chief Scientist and the work of Healy and colleagues (2013) which document the relatively low numbers of students at all levels in the science pipeline, relative to many other countries; and the egregiously low participation rates of girls and women in several branches of non-life sciences. The NISA statement and the above-mentioned reports (Dobson 2012; Healy et al. 2013; Chief Scientist 2016) are quick to identify gender inequity in STEM education and careers as a disservice to women, depriving them of opportunities in STEM or where these are obtained, depriving them of advancement and remuneration relative to their male peers. This is stated in forthright terms by the Chief Scientist: 'The pay gap between men and women revealed in this report is significant, it is longstanding and it is unacceptable. No clever country under-serves half its people' (2016, iii). However, the social justice and equity dimensions in the framing of the women in STEM issue jostle with its more instrumental framing as a solution is sought to the crisis of national economic competitiveness.

As the issue of women and STEM is taken up by key stakeholders in the innovation debate, we see gender equity instrumentalism at work in the framing of the problem. Dr. Marlene Kanga cast the issue in these terms at a 2016 forum on Australia's future workforce needs:

> Australia is fortunate that it continues to attract record numbers of migrants with STEM skills. During the boom mining years, more than

> 65,000 engineers came to Australia and more than 50 per cent of engineers in Australia are now are overseas born. However, this may not continue. The harsh workplace culture in Australia is another issue that results in continuing losses of women with STEM skills. This is a loss of a limited, precious resource and is a huge cost to the country. It is going to be increasingly important to attract and retain a diverse workforce with the crucial STEM skills to keep pace with innovation and technological changes. Changes to workplace culture are going to be critical. (quoted in CEDA 2016, n.p.)

In Kanga's assessment, the historical solution to labor shortfalls, immigration, seems a less certain solution for the future, forcing the nation to call on resources closer to home but currently excluded or marginalised in the STEM workforce: women. The question mark over the future of the immigration solution arises from the re-emergence of neo-nationalism hostile to immigration, as signaled by the re-election of Pauline Hanson to the Australian Senate in 2016, and her re-birthed One Nation party which in earlier carnations had mounted attacks on both immigration and the presence of international students in Australian universities.

Securing and retaining women in the STEM workforce is a challenge but one which must be tackled if the nation is to reverse the 'loss of a limited, precious resource [that] is a huge cost to the country.' For Kanga, the loss to women in STEM of the opportunity to pursue careers for which they have trained due to 'harsh' workplace cultures registers as the nation's economic and competitive loss of 'crucial STEM skills to keep pace with innovation and technological changes.' Equity for women in STEM is less an issue itself than for its implications for the national economy. The juggle between equity and social justice and the economic imperatives of the nation is evinced in this statement from an Australian peak professional boy:

> Addressing these issues is not only a matter of justice and equity but one of economic imperative in terms of labour market supply and improving the bottom line. Boosting the labour force and widening the talent pool from which professional engineers, scientists and IT professionals are drawn is critical to improving the quality, diversity and output of STEM research and our STEM workforce, and in turn ensuring engineering, science, technology and research and development (R&D) remain central to the nation's innovation and productivity improvement strategy. (Professionals Australia 2015, 7)

Australian policy discourse is not unique in positioning the issue of gender equity in STEM in this way. In the USA, Canada and the UK, similar narratives emerged which framed gender equity in STEM as a key constituent of national emergencies in innovation and competition. What then follows from this is the address of gender equity as instrumental to economic growth, competitiveness, and innovation. The Australian policy documents under examination share features with, and to a degree have been influenced by, a suite of similar documents generated in the USA in the wake of the *Rising Above the Gathering Storm* report of 2007 in which the looming shortfall in STEM qualified graduates within the USA, and the attendant failure of US enterprises to keep abreast of the pace of change and innovation in the world economy is cast as an imminent disaster for US global competitiveness and power. The US National Science Board asserts:

> To ensure continued U.S. competitiveness and prosperity, our Nation must foster a strong, STEM-capable workforce […] We need to address roadblocks to the participation of groups traditionally underrepresented in STEM (e.g., minorities, women, individuals with disabilities, military veterans, and individuals from lower socioeconomic backgrounds). Addressing these roadblocks will allow our Nation to benefit from the capabilities of all of its people and ensure that our populace can participate fully in a globally competitive, knowledge- and technology-intensive economy. (National Science Board 2014, 2)

The theme is extended in this 2011 statement from the US Department of Commerce:

> Our science, technology, engineering and math (STEM) workforce is crucial to America's innovative capacity and global competitiveness. Yet women are vastly underrepresented in STEM jobs and among STEM degree holders despite making up nearly half of the U.S. workforce and half of the college-educated workforce. That leaves an untapped opportunity to expand STEM employment in the United States, even as there is wide agreement that the nation must do more to improve its competitiveness. (US Department of Commerce 2011, 1)

Again, the objective of national economic competitiveness precedes or jostles with considerations of social justice and equity in removing the barriers to participation of currently under-represented minorities in

the STEM workforce. Doomsday scenarios based on the relatively low take-up of STEM by domestic students in advanced economies, high dependence on foreign students for doctoral work in STEM, and low participation rates by women are also outlined in the UK (Royal Society 2010) and Canada (Science, Technology and Innovation Council 2008), with similar exhortations to mobilize women's STEM potential in national interests.

Beyond policy agents directed to national concerns in Australia, the USA, and Canada, we find comparable formulations of the women in STEM issue in global policy discourse. In this 2015 statement from UNESCO, it is the challenges faced by the world—as distinct from any one nation—which demands a STEM workforce with capacities augmented by the full inclusion of women:

> Our world today requires of us to find solutions to exploit opportunities for sustainable and inclusive growth and mitigate these simultaneous threats. But when we look into the fields of Science, Technology, Engineering and Mathematics (STEM), we must increase our capacities to cope with these persisting challenges, and for that we need to increase women's participation in STEM fields. (UNESCO 2015, V)

Kelly Roberts, in her overview of key policy and research literature on the women in STEM issue, makes the following observation:

> Words are used in policy documents such as *strategic importance to national economic growth*, or *international competitiveness through innovation*, or *maximizing productivity*. The need to improve the situation for women specifically is often motivated by concern for women as an under-utilized resource that has the potential to boost the labour force in this sector and provide a larger talent pool within which to search for the best and brightest. Furthermore, the human capital of those women who have undertaken training in one of these fields and left their career prematurely has not been effectively maximized (emphasis in original). (Roberts 2014, n.p.)

An inevitable question arising from this critique is whether any of this actually matters. That is, if a more instrumental approach to gender equity secures political action and funding to support programs aimed at increasing the participation of women in STEM and opportunities available to them—as for example the $13 million dollars being directed by the Australian government through NISA initiatives—does it matter if

the social justice and equity dimensions of the problem have been subordinated to the agenda of national competitiveness in innovation? Before we look at this question, it is useful to turn to some feminist commentary in fields such as development economics.

Turning to Women and Smart Economics

It is illuminating to draw parallels between what we are describing as gender equity instrumentalism in STEM and innovation policy discourses and what may be described as the 'woman turn' in global economics and the economics of development. This turn to women and gender equity as enablers of development emerged in the mid-1990s and as it has developed has come to be called 'womenomics' and more recently smart economics. As explained by Roberts and Soederberg in their critical assessment of the World Bank's 2012 publication *World Development Report: Gender, Equality and Development,* a manifesto of smart economics in development:

> [T]he reduction of gender inequality is not just a development objective in its own right, but it is also smart economics. The importance of smart economics is that it focuses our attention not only on the material gains of achieving gender equality but also on how economic empowerment spills over into other areas such as improving women's absolute and relative status in the community and levelling the playing field for both men and women so as to obtain a 'better development path' through more representation, more inclusion and more choices. (Roberts and Soederberg 2012, 952)

While the focus on women and gender in development economics is a policy priority welcomed by some feminist commentators, they also point to issues and risks in this approach. One concern is that the direction of attention to women without an accompanying and thoroughgoing dismantling of the unequal power relations that lead to women's marginalization in the first place may actually extend and perpetuate gender inequality; and that it may add further burdens to women, already carrying double burdens (at least). Thus, as Razavi and Miller write:

> While this has given women a higher profile in policy discourse, the danger is that women are now expected to compensate for public provisions, which for a variety of reasons, among them stringent fiscal policies and mismanagement of resources may not be forthcoming. As [several

> commentators] have pointed out, this can mean an intensification of women's workloads as the onus shifts to them to extend their unpaid work as feeders, healers, and teachers of children to include the provision of basic services to the community. (Razavi and Miller 1995, 9)

As Roberts and Soederberg (2012) further argue:

> [T]he framework of 'womenomics', which assumes that, as women are driven by rational self-interest to enter the workforce, they will raise the productivity and consumption rates of a country. The benefits, or, more specifically, the 'intrinsic value' of gender equality does not end there, however. As women become entrepreneurs, they are able to lift both themselves and—thanks to the inherent nurturing qualities ascribed to the female gender—their children out of poverty. The gender equality as smart economics approach also frames corporate citizenship as a natural, inevitable and rational feature in development, in which market-led initiatives can create equal opportunities (and rewards) for women and businesses alike. (p. 950)

The scholars quoted above sound notes of caution. Support directed to women which doesn't also direct attention to dismantling the structures and challenging the cultural norms which relegate women to the margins runs the risk of perpetuating gender inequality in new guises.

Fuller participation in the STEM and innovation agenda by women—as in the development agenda since the 1990s—might, without thoroughgoing change in all other aspects of culture and society, lead to a perpetuation and intensification of the double burden already borne by women. Women in numbers sufficient to produce critical mass are needed in STEM to do nation building work and contribute equably alongside men in the STEM workforce. They are also required to perform the gender transformational work within STEM, to assist in the development of other women in STEM as mentors and roles models. The work of transforming STEM is disproportionately framed as women's work. Women may get to contribute alongside men to STEM advances, contributing to national innovation and wealth, and get to mentor and support other women in the same endeavor and continue to do what they have always done, the more than two-thirds of domestic labor and the lion's share of caring and community responsibilities they also disproportionately perform (Ruppanner 2017). Not bad for a day's work but hopefully under fully equitable conditions, they may receive equal pay for these efforts.

What Next?

It is hoped that the raft of Australian programs currently being supported by $13 million dollars of funding addresses some of the issues faced by women in pursuing educational opportunities in STEM to the highest level and in pursuing careers in STEM both in the academy and in industry have real and sustained impact. There is certainly a long way to go to bring the current 14% of women in the total STEM workforce to something approaching parity, let alone genuine equality. However, to a large extent, the programs announced by the government tend to address women and not STEM itself. While the Athena-SWAN (SAGE 2017) program being rolled out in 30 of the Australia's 40 universities may go some way to address deeply ingrained gender bias in the way in which science is undertaken in Australian universities, as it has in the UK, will this be enough, will it occur quickly enough and will the changes, if made, be sustained? For the women sufficiently advanced in their STEM careers (Ph.D. graduates, early career researchers) to benefit from the Athena-SWAN initiatives, the changes may be real and material. A strong countercurrent to this potentially positive development is the Australian Human Rights Commission's (2017) data on the alarming levels of sexual violence on Australian university campuses. Too many women may be frozen out by the chilly STEM climate, or sexually harassed out of their STEM studies, before they even get to the Ph.D.

There is a further risk with the instrumentalist approach to gender equity in current STEM and innovation policy for which history may provide instruction. During World War II, when the industrial workforce needed to supply the war effort was depleted by men called to fight on several fronts, women in both the USA and Australia (and other countries) were actively recruited to fill their spots and labor in a range of settings previously restricted to men. The recourse to the labor of women in the war effort was supported by publicity campaigns, spearheaded by the figure of Rosie the Riveter in the USA whose sassy appearance and rolled-up sleeves signaled that women were more than up to the task. In Australia, women also responded to the nation's call and took up roles in munitions factories, heavy industry, the railroads, and took on agricultural labor in the Land Army. Childcare, through a network of Day Nurseries to provide long-day care for their children, was established to support this labor. None of this was sustained. The war ended, the men returned to take up their former jobs, and women returned to domestic

duties. The public education machinery which had earlier advocated women's participation in hard industry was now redirected to framing women's most valuable role as the overseers of the domestic sphere, that refuge, removed from the world of paid work, to which men might return and refresh themselves.

The lesson here is this. If gender equity is not framed as a good, and as necessary in and of itself, and if it is directed instrumentally to the achievement of another goal—the furtherance of the war effort in the absence of male labor, or driving the STEM and innovation agenda for the economic growth of the nation—the great risk remains that once the goal to which gender equity has been instrumental is achieved, the commitment to gender equity (or its appearance) will evaporate. Gender equity is smart economics, good for innovation, good for STEM, and good for the nation and the world, but it is also a good in itself. Those of us committed to gender equity should insist that this point is never obscured even when we participate (as we must to gain political traction and support) in arguments and strategies which instrumentalize this principle.

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CHAPTER 6

Gender and Higher Education in India: Negotiating Equity with Access

Manasi Thapliyal Navani

Introduction

The Indian higher education system has seen a dramatic expansion in the number of higher education institutions (HEIs) and in the number of students attending tertiary and post-secondary institutions. It is second only to China in the post-secondary sector, but still far away from being a universal higher education (HE) system (Tilak 2015). Tierney and Sabharwal (2016) note that the bulk of this expansion has taken place in the twenty-first century, with the number of institutions increasing from 12,080 in 2002 to 35,357 in 2013, and the student intake increasing from 10.7 million in 2002 to 32.3 million in 2013. These numbers are a reflection of the clear emphasis in state policy on access, equity, and excellence in the domain of higher education over the last decade, as evident in the XIth and XIIth Plan Documents of the Government of India. There are, as listed on the All India Survey for on Higher Education (AISHE) (Ministry of Human Resource Development 2017) web portal,

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799 Universities, 39,071 colleges, and 11,923 Stand Alone Institutions in the country.

The expansion of the system at this significant pace has happened amidst a rapidly transforming political economy subsequent to the economic liberalization in the early 1990s. The continued presence and refashioning of social inequalities within a neoliberal political economy is also accompanied by a reevaluation of the central tenets of Indian democracy, the role of public institutions, and the idea of public goods therein. State commitment, however, to the global compact on the universalization of elementary education has resulted in a growing demand and aspiration for HE. This increase in demand for HE has been reciprocated by significant institutional expansion within the sector.

The expansion of the HE system is expected to reduce inequalities in access; provide opportunities for social mobility through better employment opportunities in the formal sector; and create a more enlightened citizenry. It is, however, interesting to note that the bulk of institutional expansion to absorb the demand for HE is taking place in the private system of higher education. At the turn of the millennium, there was not a single private university in the country; however, by 2016, there were 277 privately managed universities listed on the All India Survey on Higher Education (Ministry of Human Resource Development 2017). Currently, 78% of colleges in the country are privately managed: 64% private-unaided, and 14% private-aided. There are 27,679 private colleges (both aided and unaided), as opposed to 7988 government colleges. Almost 17.2 million students are enrolled in private colleges (both aided and unaided) while 8.5 million are enrolled in government colleges. In fact, according to the AISHE survey (ibid.), the number of colleges established in 2015–2016 was 710 by private sources and 133 by government sources.

This private HE system in the country is ostensibly non-profit; the ground reality, however, indicates corrupt practices around capitation fees, tuition fees, and state subsidy to the private system. There are imminent concerns and doubts about the nature of this expansion and the purposes it is fulfilling—several commentators have questioned whether the expansion through and within the private sector has been enabling at all, which segment of society it enables, and furthermore, if it really strengthens the knowledge economy of the nation.[1] The skew or slant of the expansion has been more toward marketable, high fee-charging, currently in-vogue professional or vocational courses, like engineering, medicine, business administration, computer applications, and financing; often at the cost of good quality broad-based liberal education. It has

been argued that the market-driven nature of higher education expansion and the re-envisioning, in practice, of higher education as a private good, could in fact impede the reduction of inequalities aspired to by the state and society through democratization of access to higher education.

There are anomalies and singularities to be explored and engaged with in this narrative of democratization and expansion of HE in India. The intent in this chapter is to bring attention to the complex gender dynamics that get camouflaged within these singularities and through them, deliberate on the challenges that mark the process of massification of HE system in India.

Gender Gap and Higher Education

As HE in the country gets re-imagined, the role of the state in shaping and anchoring the HE system seems to be getting altered. One may ask, how critical or marginal is the issue of women and their education in the Indian context? The situation, evidently, is a far cry and a long journey from a time just about a century ago where the nationalist discourse in colonized India saw the education of women and non-Brahmins as amounting to a loss of nationality. The Nationalists, during 1881–1920, consistently opposed the establishment of girls' schools, the imparting of education to non-Brahmins, and the implementation of compulsory education (Rao 2008). The grassroots movement started by social reformers like, Jyotiba Phule and Savitri Bai Phule, stood as a contrast to the nationalists, pushing the colonial state for institutionalizing compulsory mass schooling for girls and students from the marginalized and discriminated communities. The nationalist consciousness, post-independence (1947) had its counter also in the economic growth agenda, where mass schooling for both boys and girls was seen to play a crucial role in the economic growth of the country. Despite the policy commitment, equity and quantity remained significant challenges in the provision of both primary and secondary education. The emphasis on institution building for the new nation-state, research, and services was accompanied by the state's inability to universalize elementary education and literacy. The expansion in numbers in HE in the 1970–1980s seemed disproportionate to the base of the pyramid, drawing a policy call for planned scarcity for HE, and the need to focus on "equality, quantity, and quality" first at the school level (Naik 1979).

Within the global context, the twenty-first century across the world, as Morley and Crossouard (2016) point out, is characterized by the

movement away from the planned scarcity of higher education with the emphasis on "construction of citizen as an economic maximizer, governed by self-interest as well as aspirations for nation-building and wealth creation"; well-aligned with the ethos of neoliberal economic reforms and structural adjustment programs in the developing world during this period. These developments, as Kamat (2014) argues, also coincide with the explicit positioning of women as economic actors and contributors to both the familial and the public spheres with appropriate training and skills, thus attracting a greater focus in developmental planning. In this context, as Kamat (2014, 278) shows, research and policy on gender and education in postcolonial South Asia, are still "inextricably linked to the preoccupations and priorities of Development experts and analysis."

The focus on education for women's equality in the National Policy on Education (NPE) 1986, emerged in a context where the number of illiterate women in the country had increased from 158.7 million in 1951 to 241.7 million in 1981. The Indian State's socialist, central planning approach to all social and economic sectors, which created policy documents like, "Education for National Development" (1964), with an articulation of the state's preference for a "manpower planning approach" to educational planning, failed to check the systemic exclusion of the non-elites, marginalized communities, and women from this development narrative.

Within the neoliberal frame, there has been a renewed commitment to girls' education at the elementary level at both national and international levels. Within the South Asian context, gender in HE policy discourse still remains a "disqualified" discourse, an absent category of analysis in HE policy. There is still no commitment at the national or international levels for gender parity at higher levels of education (Chanana 1993, 2002; Ramachandran 2004; Bandyopadhyay and Subrahmanium 2008). Gender as a variable is, however, most enunciated in the context of female students' participation rates which have played a significant part in increasing overall enrollment rates in the region (Morley and Crossouard 2015). Commitment to girls' education at the school level does not by itself promise their inclusion into the mainstream of development and participation in the formal economy as there is a sustained shrinking of formal sector employment and unionized jobs, and an increase in informal low-wage, low-skill, temporary employment in the service, and manufacturing sectors (Kamat 2014).

There seem to be two broad trajectories that need to be explored while engaging with the question of gender and HE in the country—the distribution or access aspect and the justice or equity aspect. What is evident and celebrated is the fact that enrollment rates in HE have almost doubled over the last two decades in the country and women now constitute almost 46% of total enrollments in HE on an all India average (Ministry of Human Resource Development 2016a). The total enrollment in HE has been estimated to be 34.6 million, with 18.6 million boys and 16 million girls. Given the commitment to the massification of HE in the country, the numbers are expected to increase manifold in near future. The trend of expansion, however, is disturbing and requires critical attention. As stated earlier, the bulk of institutional expansion to absorb the growing demand for HE is taking place in the private system of higher education, which is increasingly high fee-charging and resistant to the equity goals circumscribing the public institutions. As greater numbers of women from the most disadvantaged sections of communities reach the portals of higher education, they will find fewer public institutions to sustain and support them through their educational journeys. The complete public subsidy to HEIs, until such time as the system was an elite one and now the expected expansion through private means as the system crosses the massification stage, will be structural impediments to maintaining gender parity. So, even the simplistic assumption that gender parity would be sustained through increasing quantitative representation may turn out to be a fallacy in the near future.

India is ranked 114 out of 142 countries in the 2014 Gender Gap Report (World Economic Forum 2014). While the aggregate statistics celebrate the expansion phase and gender parity in the overall gross enrollment rates, John (2012) argues that these figures are deceptive and that gender discrimination is taking on much more elusive forms in the contemporary context. There is a critical need to engage with questions of gender in the current context of HE in India through social and policy research that requires mapping of the intrinsic inequalities in distribution of HE by looking at the access data in a disaggregated manner.

Proactive public policy measures by the State, aimed at reducing the gender gap in higher education have played a major role in increased enrollments; 11 to 12% of all colleges (a figure close to 4000), as of 2011–2012, were all-women's colleges; and there are a few universities exclusively for women. At other places, there are special reservations

for women students, free higher education in some states, and scholarships aimed at increasing the participation of women in HE (Tilak 2015; Ministry of Human Resource Development 2016a).

These numbers are significant as they validate to some extent the initiatives pursued with the adoption of the National Policy on Education's (NPE) emphasis on "Education for Women's Equality" (NPE), which reflected the Indian State and Women's Movement's efforts to envisage education as a strategy for achieving a basic change in the status of women in society (1986). NPE argued for a national education system that would play a positive interventionist role in the empowerment of women, contribute toward development of new values through redesigned curricula and textbooks, and promote women's studies as a part of various courses in the university curriculum.

The story of education and women from the perspective of the State, therefore, appears primarily that of empowerment through access and fair opportunity. These initiatives over the last three decades appear to have paid rich dividends; having almost attributed a unique distinction to HE as perhaps the only public domain where the Indian State might have been able to achieve gender parity. Everywhere, whether it is legislatures, the employment sector, public administration, etc. women's representation continues to remain elusive and abysmal (John 2016). However, even within the domain of HE, as indicated by Morley and Crossouard's (2015) study, the scale of women's (non)participation in leadership within HE paints a disturbing picture and calls for a critical review of the terrain.

Distribution of Higher Education

Of the 799 universities, 307 universities and 60% of colleges are located in rural areas. A significant number of these colleges in rural areas may fall in the category of those that have an enrollment of less than 100 (which amounts to 22% of all colleges). Only 4.3% among 39,071 colleges have an enrollment greater than 3000. Colleges, then, are very small units often lacking a critical mass of faculty or even student strength, primarily conducting undergraduate education. Often, a large number of colleges are affiliated to a single university with no or very little autonomy or say over their curriculum or academic matters, no vertical linkage with a postgraduate system or research programs, and are lowest in the hierarchy of a complicated ecosystem of university-college

governance and administration. 268 universities affiliate close to 40,000 colleges throughout the country.

The diversity and heterogeneity among institutions find a parallel also in the nature of the student population and participation across categories of caste, gender, religion, and location. The gross enrollment ratio (GER) in HE in India is 24.5%, which is calculated for the 18 to 23 year age group. GER for the male population is 25.4% and for females, it is 23.5%. For scheduled castes, it is 19.9% and for the scheduled tribes, it is 14.2% as compared to the overall national GER of 24.5%. In terms of total enrollments, students belonging to scheduled castes (SC) comprise 13.9% and for scheduled tribes (ST) they comprise 4.9% of the total student population; 33.75% of students belong to other backward classes (OBC); 4.7% of students belong to the Muslim minority (MM); and 1.97% are from other minority (OMC) communities.

There are 14 universities designated exclusively for women and among the 39,071 colleges, 11.1% of colleges are exclusively for women. Distance enrollment constitutes about 11.05% of the total HE enrollment with female students comprising 46.3% of the total. The AISHE survey notes that the share of female students is lowest in institutions of national importance followed by state private open universities and deemed universities. It is interesting to note that these institutions of national importance/deemed universities make up a highly selective elite category of institutions to which also is apportioned the highest share of central government funding for higher education, thereby implying an uneven distribution of state funding to women in higher education.

While there appears to be parity in overall student enrollments across the gender axis, the figure appears different when one examines gender-wise faculty distributions. The estimated total number of teachers is 1,518,813, out of which about 61% are male and 39% female. At the national level, there are merely 64 female teachers per 100 male teachers. In the SC category, female teachers constitute 52 per 100 male teachers and in the case of ST and OBC, it is 62 females per 100 males, respectively. For Muslim minorities, it is 48 female teachers per 100 males, whereas for other minorities, there are 138 females per 100 males.

These facts become critical when one maps the access data across different levels of HE. Gender inequality comprises a complex picture with variations across disciplines and social groups (Tilak 2015). The distribution of enrollments across levels of HE is an important entry point into mapping the gaps in the HE distribution. Government data show

close to 80% enrollments on the whole at the undergraduate level and just about 10% enrollment at the postgraduate level; enrollments at the research level are less than half a percent and female enrollments being 0.19% (Table 6.1). At the PhD level, the largest numbers of students are enrolled in the science stream followed by engineering and technology. On the other hand at the postgraduate level, the largest number of students is in the social science stream with management at number two (Varghese 2015).

The story of apparent gender success, the 46% figure for women's participation in HE, therefore, on its own, does not reveal much and needs to be unpacked. It is apparent that somewhere close to 11–12 million women participate in higher education at the undergraduate level and exit the system after completion. At each critical stage of transition, the percentage of women decreases. The experience of women in HE and their progression through the system is yet to be systematically researched. The experience of women within HEIs necessarily has some bearing on determining the percentage of women who continue on in the system. Equity in HE does not only mean providing entry for the disadvantaged sections into HEIs; it is also about their continuation in HE and successful completion (Tilak 2015).

A closer examination of individual choices and institutional cultures reflects the persistence of and refashioning of patriarchal societal norms. Educational statistics brought out by the government of India (MHRD 2016b) point toward the choice of courses by men and women. At all

Table 6.1 Stage wise enrolment of students (percent to grand total)

Stage	*Percent to grand total (2014)*		
	Male	*Female*	*Total*
Graduate	42.28	37.13	79.42
Post graduate	5.45	5.8	11.21
Research (Ph.D./MPhil)	0.25	0.19	0.43
Diploma/Certificate/PG Diploma	5.79	2.65	8.45
Integrated	0.25	0.16	0.41
Grand total			34.21 million

Source MHRD (2016b)

Ministry of Human Resource Development (MHRD). 2016b. *Educational Statistics at a Glance: 2014–15.* New Delhi: Government of India

levels of studies—undergraduate, graduate, and postgraduate—the largest share of women enrollment is in arts and humanities programs which is similar to the case for men. More women than men join study programs in social sciences, medical sciences, languages, and education, and the share of men studying engineering is almost double that of women. These trends in themselves reflect and reinforce the feminization of some streams and professions as socially desirable.

The increasing diversity in the overall student population from different social groups, across intersections of caste, religion, class, and gender—groups hitherto not represented in the HE landscape—has also brought focus within the policy domain to the question of, "how to engender equity and quality to make access meaningful and fair." This has primarily translated into grievance redressal mechanisms of different kinds. Policy-makers' attention has yet to focus on institutional cultures that mediate access in real time. The real struggle and challenge is in configuring and establishing the necessary conditions for a fair and inclusive university space. The experience of women in higher education in the country along these transitional curves, as they move through the hierarchies of a diversified and heterogeneous higher education system, needs to be documented. As clearly evidenced by Morley and Crossouard's (2015) study, the system does not sustain women. The dominant discourses in higher education leadership and institutional research are frequently posed in the gender-neutral language of the knowledge economy with the emphasis on quality assurance, good governance, internationalization, etc. Very little research attempts to problematize the gender disparity within HE leadership and connect it to the question of transition and mobility across levels of HE and how gender plays itself out as a screening variable.

Gender, Access, Justice, and Institutional Culture

The expansion of HE post-1991 also coincided with the centrality of equal opportunity discourses and policies in public sector institutions that provided education and employment. Affirmative action in education and employment for ensuring access for historically marginalized and oppressed social groups was also due to the increasing importance of the discourse of social justice within the larger polity around the issues of caste, tribe, class, and gender (Chanana 2007). In this context, the field of education, HE in particular, has emerged as a contested and critical

site of struggle as battles are pursued over access through affirmative action amidst the state's attempt to use educational institutions for securing ideological consent (John 2008).

One aspect of the struggle seems to be about laying claim to the epistemic spaces occupied and usurped by an elitist academy (effectively translating into upper-caste, male, Hindu identity), which rationalizes the status quo through the ideal of a "Meritrocracy"; within which merit gets consistently interpreted and defined in consonance with the social and cultural capital of the caste elites. Freedom(s) of students/faculty—women, religious minorities, scheduled caste, and scheduled tribes—is/are consistently circumscribed and contained within this larger frame. The state commitment to broaden the student base is reflected in the financial incentives provided to dalit/adivasi students, namely hostels, post-matric (high school) scholarships. In addition, special cells/administrative units have been set up in universities to monitor the entry/progress of students, staff, and teachers from these groups. In the course of time and as a result of political interventions, the reserved categories have been expanded to include people with disabilities and other backward castes or OBCs. Yet, one finds that discrimination continues in varied ways. The institutional mechanisms for addressing and redressing the wrongs, the likes of Equal Opportunity Cells, often find themselves constrained; higher education institutions struggle in response to the questions of caste and communal discrimination. This struggle is oftentimes hidden in the carefully guarded data on student suicides, particularly among students coming from disadvantaged and socially ostracized caste and minority contexts. So, essentially there are two parallel movements; as the constitutional commitment to ensuring educational opportunity and equity is pursued at the institutional level through the means of affirmative action and other institutional mechanisms, there is a simultaneous strengthening of ideological attack and covert mobilization against such initiatives given the contemporary political ethos that is bearing upon the institutional cultures. The ascendancy of the neoconservative Hindu Right in the country's political sphere in late 1990s has been accompanied by ideological pulls over the content and aims of education at all levels. The Hindu Right and its political manifestation explicitly identify education as a major sphere of intervention to sustain and aggressively revive the idea of a majoritarian Hindu nation-state. In recent years, the intellectual climate of the universities is closely monitored and controlled for political ends; discourses/debates around

justice, marginalization, and human rights are routinely scuttled and thwarted by being juxtaposed against revival nationalism and parochial patriotism. One can observe patriarchy refashioning itself in the new idiom of the market and the regressively fabricated tradition, very much visible in the portrayal of women and their roles in society in the mass media (Menon 2012). The personal is being brought forcefully into the political by the hyper-communal surveillance state, for instance, through the debates on arriving at a Uniform Civil Code, the status of women in India, particularly the rights and entitlements of women from minority sections—critically restructuring the social, political, legal, and cultural agenda of women's movement(s) and public discourse on gender justice.

Within this context, one finds that the gender question and discrimination have been somewhat neatly framed and confined to the discourse of sexual harassment in the context of higher education institutions. The intersectionality of caste and religion with gender is often discounted and ignored while thinking about equity and discrimination against and even harassment of women in HEIs. There seems to be a resolution of the problem of equity with the identification of a discrimination-free environment with simply protection against sexual harassment. This identification, however, is only one aspect of the broader vision to institutionalize a gender-sensitive institutional culture to ensure women students' rights to progress through various levels of higher education and pursue career trajectories of choice.

As most university campuses work toward establishing institutional mechanisms to ensure equity with access, the challenge is to navigate the systemic constraints that such institutional cultures impose. The emphasis within the vision for codes for prevention of sexual harassment was to situate gender justice within the framework of dignity and freedom as integral to an institutional ethos. The convention on the elimination of all forms of discrimination against women (CEDAW) (United Nations 1979) declared that, "… discrimination against women violates the principles of equality of rights and respect for human dignity and amounts to an obstacle to women's participation on equal terms with men in the political, social, economic, and cultural life of their countries and hampers the growth of prosperity of society and the family." In practice, Kapur (2008) argues, the violation of women's rights to equality, life, and liberty has and is being replaced with the violation of women's "modesty." The discourse, one observes, is being persistently steered away from the framework of "dignity, freedom, and choice," to one of

"safety, protection, and control." And this shift has the potential for disrupting the parallel narrative of equity in access in principle and a gender-just institutional culture.

It is not surprising as the discourse around parity in access, and progressive, enabling gender-just campus life, has been accompanied by the ascendancy of a hyper-masculine ethos manifest in the "new" moral codes/discourses being pedaled across campuses. A cursory engagement with media reports about women in the public sphere abundantly indicates that "young women cannot express independent political views without being subject to misogyny, violence, and political intimidation" (Mehta 2017). In the context of higher education, it opens up a large chasm in terms of where women in higher education in the country are located as well as the nature of these spaces. We may have overcome the nationalistic apprehension about educating women, but it has not necessarily resulted in engendering of safe spaces and democratization within institutions of higher education.

The experience of women within HEIs and their participation at all levels are contingent upon the creation of inclusive and gender-just spaces. The enactment of the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Bill in the Indian Parliament in 2013, built upon the landmark judgment by the Supreme Court of India, *Visakha vs State of Rajasthan* (1997), makes it the duty of the employer in workplaces or other institutions to prevent or deter the commission of acts of sexual harassment and to provide procedures for the resolution, settlement, or prosecution of acts of sexual harassment by taking all steps required. This led to the Saksham Committee (a University Grant Commission's committee on gender sensitization and safety of women on university campuses) to interpret and define the guidelines in the context of HEIs in the country.

Contrary to the policy emphasis against "over-monitoring," which is visible in the Saksham Committee's guidelines, the issue of gender justice and safety is being maneuvered to infantilize women and polarize debates, hinging them on the limits of freedom. Repeated instances of sexual assault and violence within campus spaces in the last few years have accentuated this polarization. It is also pertinent to note that with the Supreme Court judgment, many cases of harassment were documented perhaps for the first time in the institutional histories of Indian universities—moving them out of a staffroom "gossips" frame to the legal framework. The translation of this vision for gender justice into a

legal framework has not been without challenges. A significant challenge has been to negotiate the fine line between the code of conduct for a safe and harassment-free space translating into a project for empowerment of women as opposed to increased moral surveillance of sexual conduct (Kapur 2008, 285). This skew or emphasis on women's participation and inclusion primarily through the trajectory of prevention of sexual harassment precludes a more in-depth engagement with exclusionary regimes in campus life and culture. A legitimate fear is that this phenomenon will have critical implications for how university spaces are imagined, whether it will hold and realize the promise for creating conditions of gender parity in participation, or get co-opted into further strengthening patriarchal regimes in new forms.[2]

Universities/colleges are also spaces where women assert and learn to identify themselves beyond close kinship ties and customs. The liberal ethos and this collegial context challenges the same codes and young women can and often do acquire the tools and vocabulary of resistance to oppressive structures. Free speech and the assertion of the self and one's sexuality are just some aspects of this process, which threaten the familial/social norms for a domestic and pliable role of daughter/daughter-in-law. Any articulation of freedom from these norms in contemporary contexts has also been equated closely with a threat to the idea of the nation itself. If the nation is construed in the idiom of the mother, it becomes all the more critical to perpetuate and celebrate the fashioning of a self-sacrificing and domesticated woman as the national ideal (John 2016). This implies also that the honor of the family or of the nation has to be safeguarded with a militant zeal by vanguards of society/patriarchy.

The emergent concern with preserving Indian tradition and the honor of its women, relegates to the background women's agency, their claims for sexual rights, the project of self-empowerment, and fashions a passive identity contingent on predominant sociocultural hegemonies. The psychosis around safety in fact makes it even more difficult for first-generation women students to aspire to greater mobility, voice, and agency to pursue a higher education of choice. Transition to higher levels and participation in research trajectories continues to remain elusive, given the challenges and threat that the hostile and "unsafe" university environments may pose. It is here that one finds the need for critical reflection and review of the essential factors that will challenge the narrative of both "merit" as well as "safety" and strengthen the project of democratization of higher education in the country.

Conclusion

A divergent set of struggles thus characterizes both the higher education domain and the women's struggle for equal education and employment opportunities in India in contemporary times. The struggle for gender justice maps a comprehensive landscape of challenges, from understanding patriarchy and sustaining the struggle for gender equality to examining the pedagogical role of educational institutions in accentuating and redefining the gender asymmetries. This mapping is critical to an in-depth understanding of the power dynamics that are unfolding in India, alongside the contestations over democratization of social, political, and epistemic resources and spaces like universities. Any serious engagement with gender discrimination thus has to move beyond the statistics of gross enrolments and engage with lived realities and social formations within institutions, particularly with HEIs. It is here that the struggle for democratization and gender justice has to be effectively negotiated.

Notes

1. Kapur (2008); Kapur and Mehta (2007); Kapur and Perry (2015).
2. See for instance a series of reports on violence against women on campus, available online at: http://www.cetri.be/India-Campus-gender-politics?lang=fr; http://timesofindia.indiatimes.com/city/kochi/When-campuses-turn-gender-ghettos/articleshow/49807537.cms; http://thewire.in/67205/bhu-rsss-new-education-lab-open-gender-discrimination/; http://www.youthkiawaaz.com/2015/12/gender-and-violence-against-women/; http://www.thecitizen.in/index.php/NewsDetail/index/7/8981/Why-Is-AMU-Students-Union-So-Scared-of-Us-Women.

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CHAPTER 7

Thinking of Gender: On the Way to Emancipatory Higher Education in the Globalizing China

Weiling Deng

Introduction

The academic discussions of the hybridity of Chinese/Asian education (see Neubauer et al. 2013) can be specified with a gendered perspective. The hybridization of Western and Chinese/Asian educational techniques, beliefs, and goals has a gendered nature that marks the sexualized desires of national development in the construction of the East/West binary. What the word "sexualized" refers to is less about a heterosexual imagination of interstate power hierarchy (the industrialized West perceived as masculine whereas the colonized areas as feminine), than about the frontal or nuanced negotiations of who is the Other, the exotic, that mirror the relationship between the masculine and the feminine. In those negotiations, education is designed to leverage a state's competency. In China's case, masculinity and femininity were reconstructed by the

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internationally educated elites since the late nineteenth century to compose a realizable vision of modernity (Barlow 2004). The reconstruction of masculinity and femininity took place in a wide range of locations: institution, community, household, and individual mentality. The hybridized education consists of the entire range of these social transformations contextualized in semi-colonial China and at the same time makes a contribution to the remodeling of these gendered locales that does not eliminate the semi-colonial condition, but transmutes it in accord to the changing world order. Against this background, gender and education are intrinsically interwoven as spaces of emancipation and subordination. The emancipatory agenda that both gendered and educational programs target is subsequently complicated, rather than a juxtaposition of identified Western and Chinese/Asian cultural elements.

Notably, Chinese women's education has been entangled with the "women problem" since the late nineteenth century, a term coined in the underpinning theorem of human society's evolution to stimulate massive defense of the Chinese nation and the race with greater physical and mental strength (Barlow 2017). But few studies have sufficiently weighed the "women problem's" special empirical and theoretical importance in guiding the formation of partisan nationalism and the modernist educational valuation. Indeed, the "women problem" has been an essential terrain of contestation of education's accountability between the then government and different forms of feminism, ranging from anarchist through nationalist, statist, and socialist. But despite the variety of contested relationships between feminism(s) and the state, the category of the "Chinese women" had been used tactically in the name of women's emancipation as a master key to unlocking the domination of male subjectivity in the development of the modern Chinese state (Liu et al. 2005).

The contemporary grassroots Chinese feminist movement that this chapter focuses on is another story in the lineage of the "women problem." Unlike some scholarly and activist opinions that state that the current movement is completing a women's emancipatory revolution unfinished in the socialist era or even further back in the May Fourth Movement in 1919, my study locates it in neoliberalism's "stealth" modification of the progressive means and ends of human civilization envisioned by global intellectual elites (Brown 2015). Concentrating on the importing of the notion of gender in the 1980s, I argue that the present-day campaign for gender equality found its origin of rationale in

the post-socialist reorientation of the individual-society relationship. The fundamental distinction of the current feminist movement derived from the revolutionary philosophical explorations of the material, social, and intellectual meanings of difference experienced by the tangible, sexed body. How, then, does this distinct savor of gendered difference break through the cliché paradigm in Chinese education in the twenty-first century?

Theoretical Framework

The Birth of the "Women Problem"

When women's education was first depicted as a social need in the late Qing Dynasty (toward the end of the nineteenth century), the idea did not come from the belief that women should enjoy the same rights with men to be educated. Rather, the vision of popularizing women's education was grounded in a derogative problematization of the imagery of "Chinese women" after a few decades of defeat by the Western colonizers. "Chinese women" then became a problem, not subjects of embodied experience, that begged urgent solution. It was in this conceptualization of women and womanly disadvantages that feminism was adopted by male Chinese elites to foster women's education nationwide.

The historical mission of women's education was to transform them from pests of society and men's labor to virtuous citizens of the state, upright and healthy mothers of (male) citizens, and able thinkers as intelligent as men. Paradoxically, the aesthetics of "new women," a special term coined in the early twentieth century to signify the prospect of Chinese modernity, did not want women to lose their sensual beauty, while measuring their capability with men. The whole package of an ideal education to modernize Chinese women was delivered in an influential monograph, *The Women's Bell* (*Nüjie zhong*), that the male author, Jin Tianhe, rang to illuminate women's dull minds (Liu et al. 2005). The reconstructed connotation of "woman" outplayed, and more seriously, outlawed the actual lives women lived. While feminist critics in the twenty-first century, such as Wang Zheng, Lydia Liu, and Dorothy Ko, realized that *The Women's Bell* was in nature a fictional imagination of a proud Republican state in which the male writers could be as privileged as White men, the early twentieth-century revolutionaries and reformers—both Nationalist and Communist Party leaders—actively

included this mixed-content package into their political programs to represent and advertise their own versions of modern Chinese civilization. The theoretical and historical significance of *The Women's Bell* to the enlightenment agenda of early modern China made the book's foreword author, a woman revolutionary, compare Jin to Jean-Jacques Rousseau. While a benevolent juxtaposition, the linkage between Jin and Rousseau sarcastically pointed at the misogynous, androcentric nature of nationalist feminism celebrated by both male and female elites since the early 1900s (Liu et al. 2005, 27). Based on textual analysis of Jin's book, Lydia Liu et al. (2005) sharply pointed out:

> If we agree that [*The Women's Bell*] had become the mainstream, nationalist feminist thought (whether its spokesperson was in power or not), we would have noticed that Jin Tianhe's nationalist feminism had been managing the subjectivity of Chinese men from the very beginning. It told the story of men's subjective position, which more or less had been realized in the years that followed. In this sense, women's problem is always men's problem, and in turn, men's problem has been an enormous blind spot of feminist thought. (23, translated by author from Chinese)

The intersectionality of men's and women's problems that Liu stressed is key to understanding the configuration of Chinese modernity. Briefly, in semi-colonial China (1911–1949) when virtually all Chinese people were subalterns with respect to Western colonialists, the anxiety within Chinese masculinity was reduced by scapegoating the domestic cultures of femininity, leaving the male oppressors off the hook. Gail Hershatter paid attention to the paralleling subordinate relationships existing in the 1920s and 1930s in China. The Chinese intellectuals' subordination to their Western counterparts was likened to and mirrored in their "grievances (and plan for the welfare and control) of workers, peasants, prostitutes, and other candidates for subalternity" (Hershatter 1997, 28). Hershatter termed Chinese people ensnared in this situation "nested subalterns," and argued that:

> Rather than acknowledging their own social power over these groups, their complicity in oppression, they used that oppression as evidence for their indictment of Chinese politics and culture. They also employed women in general … as metaphors for their own oppression in a warlord society and China's sufferings in a hierarchical world order. (28)

A formative stage to the emergence of the Chinese modernity, semi-colonialism was not merely a temporary national crisis that could be overcome with anti-colonial struggles that gave birth to a new government. Rather, it had become a rationality that governed and still governs when it comes to terms with patriotic indoctrination, the social engineering projects and configures the modern Chinese person. From the very beginning, semi-colonialism had been an influential discourse that talked Chinese people into the belief that if the nation was not strong enough, it would be invaded and colonized—somewhat comparable to a woman (the endeared motherland) being sexually assaulted by a man—by foreign enemies and lose its virtue of being a privileged civilization in the world.

On this ground, the cultural war waged against foot-binding could be reexamined from a surprisingly different perspective that shakes the legitimacy of the foot-releasing campaigns as the start of the emancipatory program in Chinese women's education. In her study of foot-binding, feminist historian Dorothy Ko (2006) found out a distinct path of internalizing foreign judgment of foot-binding by educated male Chinese elites as the two parties contacted in businesses. The native view of China was zoomed out to the scale of a world order different from the traditional "all under heaven" ontology. From the 1920s to the 1930s, photography and newspapers brought more graphic impression of Chinese women's crippled feet to the public, on which the foreign aesthetics imposed a kind of embarrassment never felt before. A symbolic signifier and everyday practice of Chinese social life as it had been, foot-binding's defamiliarization uprooted a good number of educated cultural practitioners from the signified Chinese culture who were enabled to "see" China. The acquisition of the globalist perception was irreversible and subversive because the understanding of China's strength and the Chinese culture would never be shaped and reshaped without taking the West as a reference.

By defamiliarizing a cultural practice that used to signify the workings of the imperial Chinese society, the campaigners of the foot-releasing movement found themselves a platform on which their criticism of the effeminate, obsolete Chinese civilization could solidify their position as emancipators. The gendered nature of education is unveiled as a state institution to bring about massive social change. Consequently, analysis of the projects in this institution is not confined by the detection of the origins of technical innovation and renovation, but is able to diagnose

a consistency of all the modernizing attempts schools were supposed to take. It is only with this consistency that those attempts can be assessed against the (androcentric) ideal of modernity and that educational progresses since the 1900s are inherently (not nominally) modernist.

Feminism and the State

The imagery of China mirrored in the West made significant contribution to the birth of Chinese nationalism, whose gendered nature has been understudied, but is considered in this chapter a historical foundation on which Chinese feminism has developed over time. Lost in the nationalist uproar was Chinese women's real experience of physical and psychological health after having their feet released. Even before 1949, ordinary women's voices were coated with triumphant and belligerent languages so that, along with male workers and peasants, it was the "people" who were making history (Hershatter 1997). Apart from the scheme of imposing pressure on political enemies that took advantage of the subordinated people's needs to be empowered, central to my concern of the emancipatory mission of educational projects is how the notion of "empowerment" escaped examination when resistance becomes the sole attraction of the participation in social movement. Following postcolonial scholar Gayatri Chakravorty Spivak's well-known inquiry "Can the subaltern speak?" (1988), I put the achievements of socialist women's education at stake. Empowerment, as education of the underrepresented population should work toward and achieve, augments subjectivity and, when conducted in a collective atmosphere, generates a positive sense of belonging to a community. But no matter in an individual case or collective form, the excitement intrigued by the practice and reception of empowerment is likely to obstruct the continuation of the inquiry of what power is, how complex and plastic its form can be, and how it moves between multiple layers of subordination.

What state feminism in the Mao era (1949–1976) provides to the present-day understanding of women's education is controversial. To which extent were Chinese women "emancipated" from oppression by participating in the socialist revolutions? If, as Lydia Liu cautioned, the Communist Party inherited from *The Women's Bell* the utopian idea of feminism to mobilize urban and rural women, how had women's education in this era been distanced from women's lived experience? In what ways did the widespread construction of masculine women, the

"iron girls," contribute to the knowledge of equality between men and women? In general, the question of woman/femininity was overwhelmed by the sweeping social transformation that relocated women from within the household to the public sphere, flattening many important notions regarding *woman* in all domains and activities—sex/sexuality, femininity, difference, and domination—into biopolitical items that made women identical with each other and, perhaps more ideally, with men. Meanwhile, the Chinese men, emancipated as homogeneous subjects of the victory claimed by the Chinese Communist Party (CCP), differed from the reconstructed notion of "man" after the European Enlightenment. In what is termed "the people's democratic autocracy," the absence of actual voting rights in a liberal state and the reversion of social hierarchy (the illiterate disciplining the literate) cleared up a relatively prominent space in the public sphere for women. Despite an obvious increase in women's confidence and mobility, the status was grounded in a "technology of power" so special in time that would soon collapse as the guiding political economic scheme switched to the next stage.

Social elaboration of sex, as gender can be understood (Moore 1994), was virtually eradicated in the first three decades of the CCP's rule. One of the few elaborations free from the inclination of a state-issued equality prospect that one can trace back before the Nationalist and Communist governance was He Yinzhen's anarchist feminism in the last years of imperial China. Her conceptualization of sexual difference, which intersected with class stratification, was very advanced and similar to what is known as "gender" today (Ko et al. 2013). Her insightful feminist knowledge was discontinued soon after it was published. But Chinese women in the 1980s had to recreate the knowledge of themselves as women, as well as cultural and psychological "spaces of their own" (Yang 1999) after decades of non-thinking of the sexed body-mind connection. A decade released from the Cultural Revolution (1966–1976), the 1980s was immersed in the "chemical reaction" between neoliberalism, a new biopolitical scheme called the One Child Policy (1979–2015), and an ensemble of activities in search of the suppressed subjectivity. The result was similar to that of Galileo's discovery interpreted by Foucault (1984, originally published in 1967). The moral and economic boundaries of the Mao (Middle) Age and before, "turned out to be dissolved" and constituted "an infinite, and an infinitely open space" (1) where government is not only a political organ supported by economic construction. But the reverse is true: The meaning of government has turned to

economized rationality (governmentality) of the state, organizations, and individuals (Brown 2015).

In this dramatic sociohistorical engineering project that drove China into the twenty-first century as a formidable rising economy, sexual difference both confuses and stimulates the market of women's education. Single daughters raised in urban families that endured a much higher risk of educational investment have formulated a strong intellectual and economic army, not only showing the country that they are no less competitive than men in all domains, but also accelerating the neoliberal reconstruction of the Chinese state from both conservative and progressive stances. Around 2010, a troop of upper-middle-class professional women quickly caught up with the transnational trend of "Lean-In feminism" modelizing Facebook's Chief Operating Officer Sheryl Sandberg. Shortly, the average age of "Lean-In feminists" slid down to the early twenties and the troop successfully recruited ambitious women students in elite Chinese universities. Although it seems to have suddenly diversified the prospect and moderated the sharp criticisms of feminist struggles, the actual pattern corresponds to the neoliberal imagination of a meritocratic pipeline that tailors the world's resources to individualized interests. The matter of difference then is no more and no less a business issue. This business rewards winners of the global capitalist game, the technicians of the discipline of market, whose sex happens to be female. It means that gender becomes an extra portion of the ensemble of capital to which assessment-centered education can contribute. That being said, the failure to get through the pipeline toward a white-collar job and to live an individualistically tailored life is delegitimized in sympathy that moralizes class differentiation.

Less market-driven than the "Lean-In feminism," the grassroots feminist activism's theoretical inheritance partly comes from the Fourth World Conference on Women in 1995, Beijing, that disseminated the intervention of the "women problem" from the state (mainly the All-China Women's Federation) to the bourgeoning liberal civil society and partly draws from the legacy of the second-wave feminist movement from the USA. More theoretically inspired by existing Western feminism and trained internationally, the new group of feminist activists concentrates on the discourse of sex and the concept of gender to confront the discipline of heteronormativity in schools and the labor market.

The youth feminist activists, like other young, urban professional women, are placed in a metropolitan atmosphere that confusingly

embraces subcultural expression and economic differentiation at the same time. In the urban settings, the institutional debt of unbalanced socioeconomic statuses between men and women, to a great extent, is diminished by the urban/rural wealth gap. The wealth held in the hands of the urban residents includes both material and monetary assets, and intangible capital accumulated through joining neoliberal networks and acquiring universally valued awareness. Though many Chinese feminists may not want to admit, there is at best a blurred line between neoliberal and grassroots feminisms in the actual efforts of popularizing feminist knowledge at the rim of the formal Chinese educational system. The paradox that middle and upper-middle classes of grassroots feminist activists tend to overlook is between feminism as a radical awareness against the globalization of capitalism, and feminism as a family of knowledge credited by academic capitalism worldwide. "Glass ceiling," for instance, is a common ground of women's empowerment that risks naturalizing the connection between an individual woman's success and the signs of institutional change. On the surface, rage to the "glass ceiling" seems to unify every woman on the battle line against sexism. This phenomenon was seen in Hillary Clinton's presidential campaign in 2016. Tides of emotion were mobilized in the well-versed slogan "I'm with Her." But underneath the tides, the hopes of equality kept giving way to the beneficiaries performing what Nancy Fraser (2017a, b) called "progressive neoliberalism." Nevertheless, the grassroots activists take as their mission the frontal challenge of the moral disciplining of common sex discourses by foregrounding the deliberation of gender and difference that has not been done enough in any time before.

"Weak Education" and the "Dangerous" Pedagogues

Difference, Gender, and Education

What separates the critical feminists from "Lean-In" feminists as a distinct, politically motivated group is their exploring the politics of the discourses of difference, a continuous act that complicates education's normalization of discipline. They straightforwardly question the divide of danger and safety in the territory of people's thoughts and deem that divide arbitrary. Themselves willing to publicly announce their politically and culturally nonconforming positions through building their own vocabulary of gender and sexuality, education's heteronormative

disciplining at school settings and in the interstices of everyday conversation then becomes the biggest target of critical feminists' criticism. But the real difficulty is the perplex, post-socialist perceptions of difference that constitute the overall impatient framework to "make education work" to channel human capital for efficient economic growth.

Difference, in Henrietta Moore's words, "exerts an uncanny fascination" (Moore 1994, 1) to a nation that just woke into the sensation of sexual and classed differentiation in the stimulation of a bourgeois free market. On the one hand, sexual differentiation is re-naturalized in the intensive critiques of the "unnatural" pursuit of the Maoist narration of womanhood, which "scientifically" grounded women's liberation and political agency in the "Chinese Marxist philosophy" of women's centrality in driving social evolution based on "human sexual reproduction" (Barlow 2017, 1). This reflection deprives women of the central contribution to the evolution of society approved by the Maoists, resulting in the regression to "the second sex." On the other hand, classed differentiation infinitely instigates an individual's desire to rearrange his/her position on the social ladder. This idea produces an illusion of equality at the expense of individual struggle and simultaneously legitimates the enlargement of the socioeconomic gap.

These two notions of difference seem to contradict each other in that the former seeks to restabilize a "natural" order, whereas the latter wants to disturb an existing social order. But they are actually the two sides of one coin, which is the unanimous agreement of the sanity of self-government as the new truth of being an educated, modern individual reaching for the "right" place in competitions. It is this agreement that matters the most. It marks the sweeping victory of market-based reasoning in "all domains and activities" ranging from the government to organizations, communities, and individuals (Brown 2015). Following Michel Foucault, Wendy Brown focused on this new rationality of "governmentalities" to explain the formidable power of neoliberalism as it "economizes" the non-economic spheres and "transmogrifies" individuals from political subjects to human capital (Brown 2015, 50–59).

As "neoliberalism brings liberalism more squarely into places," the collapsed tension "between the subject of right and the economic subject" (56) gives the critical feminists an uneasy standing point to theorize the politics of gender and the philosophy of difference in the twenty-first century. It is simply hard to charge responsibility of the "liberal governmentality" that is "reprogramed" into "governing the *homo economicus*

(and the economy as a whole) 'without touching it'" (56–57). The institutions of education can easily claim irresponsibility to students' health concerns and subsequently isolate the complaints to an alien land of insanity just by taking advantage of the majority's fear of acknowledging difference as human beings' natural vulnerability. In contrast, critical grassroots feminists strive to use the deliberation of gender to accept and deconstruct such vulnerability. They are working to make education authentic again, problematizing the nationwide pursuit of "eugenic" and "biopolitical" discourse that, starting from Jin Tianhe's time, configured what Tani Barlow (2004) termed "colonial modernity."

Biopolitics, as Michel Foucault (1978) acknowledged, gives new meaning to population as calculatedly regulated in the realms of fertility, reproduction, and intelligence. As education is asked to fulfill the goals regarding the cultivation of population, it is simultaneously shaped by, and constitutive of, modernism. The modernist educational experts emphasize the efficiency of industries and "a perfect match between 'input' and 'output,'" aiming to "take the risk out of education" (Biesta 2013, 1). But Gert Biesta (2013) argued that in implementing such policy-making strategy, it is very likely that these experts are taking out education altogether from human society. A stable and predictable development of education's accountability to either political coherence or economic boost needs to suppress the "ambiguities and opposite elements" that amount to differentiated and distinct subjective identities (Scott 1986, 1063). But it is worth noticing that such suppressive power of the variety of words available to describe subjectivity does not equal a total prohibition of the language of (sexually) embodied experience. The Foucauldian interpretation of power needs to be repeatedly savored: "power not only represses; it also creates" (O'Brien 1989, 35). Foucault's explanation of the management of sex indeed illustrates what education is:

> [O]ne had to speak of [sex] as of a thing to be not simply condemned or tolerated but managed, inserted into systems of utility, regulated for the greater good of all, made to function according to an optimum. Sex was not something one simply judged; it was a thing one administered. It was in the nature of a public potential; it called for management procedures; it had to be taken charge of by analytical discourses. (Foucault 1978, 24)

The objective of education is to "administer" the individual, an embodied subject, to manipulate the connection between the mind and the body to fulfill the purpose of production and reproduction at various stages of life.

By substantively adding subjective identities to the process of self-cognition and socialization, the feminist activists are adding risk to education to slow it down from the overly emphasized speed of economic growth. In doing so, they reject the idea that school is a sociologically fixed frame to analyze, evaluate, and more importantly, create education. What they have been trying to do is to restore a part of education's philosophical vitality outside the walls of school by:

> Theorizing how individuals become engendered subjects; that is, how they come to have representations of themselves as women and men, come to make representations of others and come to organize their social practices in such a way as to reproduce dominant categories, discourses and practices. (Moore 1994, 51)

This act places a new challenge on the domestic educational institutions in specific and on the belief in authority in general. The politics of gendered difference is so unfamiliar that neither has had sufficient experience to sound convincing in front of the challengers and the public. The expedient tool is administrative pressure that puts the challengers in personal danger, such as the risk of losing jobs or student status. But it is exactly this imposed danger that makes every challenger a new type of pedagogue who returns education to the care of person.

Qiu Bai Battling the Ministry of Education Over Problematic Textbooks

On the eve of the International Women's Day (March 7) of 2015, five Chinese feminists were detained before they carried out the multi-city demonstration to raise the ratio of women's and men's public restrooms. They were accused of "picking quarrels and provoking trouble" and kept in jail for thirty-seven days by the authorities (Zeng 2015). This event marks the government's greater determination to stem feminist activism across the country, causing various levels of psychological harm to those involved and their colleagues and supporters all around China. The activity of shock art on the street—such as occupying men's public restrooms

to demand a higher ratio of women's facilities and wearing artificial blood-stained wedding gowns to protest domestic violence on women—has been nearly impossible since then. In 2017, neighborhood police in Guangzhou demanded a few women activists to move out of their rented residences in order to interrupt the custom T-shirt printing for a new grassroots campaign against sexual harassment in public spaces. These are just a few examples out of hundreds of instances of surveillance which activists in China have to endure.

The message expressed from surveillance, detainment, and legal punishment is that whoever wants to approach social movement practitioners has to mind themselves of the same consequences. The fear of such consequences is widespread and forms tacit knowledge of a boundary of danger that citizens do not want to risk their safety and name to cross. In both formal and non-formal education, avoiding transgressing the dangerous zone is not only seen as necessary and smart, but has been moralized to become model citizenship. Intellectuals, either activists or scholars who seek to challenge the authority of the definition of danger with and for a critical application of knowledge, are subsequently marked as the dangerous species. But what do the "dangerous" intellectuals teach us out of their expertise and action? In what ways is their teaching in varied styles—shock art, documentary, and writing—crucial to surviving the plight of justice in China in the information-bombarded twenty-first century?

A key tool of governing a non-democratic country, information filtering, is a means to preserving a homogeneous social environment. Education is expected to moralize homogeneity in every unit of the society: individual, family, and school. Difference in terms of performance, memory, cognition, and consciousness is to be warned, trimmed, redressed, and disciplined as quickly as possible, in order to observe the boundary between good and evil information. But the strict control and manipulation of information in return make public confrontation and correction of the misinformation authorized by governmental institutions an immediate challenge to the legitimacy of the authorities. Focusing on this type of work, which most Chinese feminist activists have devoted themselves to, will formulate persistent dissenting voices that put knowledge production at stake. While immediate change in the educational system is hard to seek after, challenges from individual activists set the goal at creating a debating opportunity in the media. Although the specific cases of feminist action emerging in the courts or

the public vision may be outshone by later and more sensational events related to democracy and justice, these endeavors serve to develop a space of debate that realizes the feminist politics over time by gradually changing the everyday convention of thinking and doing.

In January 2017, a Guangzhou student and gay rights activist under the alias of Qiu Bai sued the Ministry of Education (MoE) in Beijing Municipal High People's Court of its administrative omission to the Chinese LGBTQ community's demand that the MoE correct its false homosexuality judgment in textbooks. The lawsuit summited two years of painstaking, but unfruitful, dialogues that Qiu Bai tried to set up with various institutions, including her own university, the General Administration of Press and Publication (aka National Copyright Administration), the Department of Education of Guangdong Province, and lastly the MoE. Unsurprisingly, the lawsuit was turned down by the court despite that homosexuality was removed from the Chinese Classification of Mental Disorders in 2001. In defending itself, the MoE declined a direct administrative and legal relationship between itself and the students (Qiu 2017). The institution thought it escaped—with absolute power over ordinary Chinese citizens—the charge of providing false information in textbooks by denying that the accused content caused direct harm to Qiu Bai's (individual) lawful rights (Wang and Wu 2017). While the legal path appeared to be heavily obstructed for the moment, Qiu Bai found hope in lobbying textbook editors and publishing houses to remove unscientific definitions of homosexuality from textbooks. Minimal as it was and would continue to be, the hope motivated grassroots feminist/LGBTQ activists like Qiu Bai to keep fighting against the discrimination to and marginalization of nonconforming communities in specific, and the rigged citizenship education in general.

The Qiu Bai case accounted for the collective nature of all impacts that social institutions have on individuals. Similarly, individual's disagreement with institutional disciplining, and any attempt to put such disagreement into action, is anything but personal. The collective call to end discrimination in the educational fields contradicts with the vision that education should be made "strong, secure, predictable, and risk-free" (Biesta 2013, 3). In twenty-first-century China, education is "strong" in the sense that it is operated as a ubiquitous institution of total disciplining to fulfill new purposes of population control. Beneath the overarching frame of building "strong" education are the many types of evaluation of faculty and student performance that patrol and enhance

the territory of everyday conduct by filtering and twisting information or by deciding what content is not to be changed. The desired outcome of a "strong" education is not entirely a boost of China's economic and intellectual power against other countries. A significant portion of that outcome, however, is to generate more policing power to the Chinese government to maintain its largest share in the economic cake. To this end of a "strong" education, education itself becomes power that suppresses.

Paying attention to the lived, everyday experience of the body is the way in which the thinking of gender resists and endangers the thinker in the ubiquitous discipline in and beyond formal education's reach. Thinking of gender creates against all odds a sphere shared by persons across disciplinary and industrial domains that acknowledges weakness as "the very condition that makes education possible" (Biesta 2013, 4). This sphere of thinking and action disturbs the policing of the boundary of public and private lives, invoking a spontaneous collective resistance to the mechanical manipulation of public resources and human power in the veins of daily life.

As a homosexual college student seeking the fruit of activism, Qiu Bai, like many other Chinese feminist activists, is unfairly seen as a peril to a culture with widespread problematic pathologization of the LGBTQ communities, to a state that criminalizes dissidents, and to an education that is too submissive to economic growth to attend to human beings' weakness and vulnerability. But this case teaches something crucial. The persistent efforts made by Qiu Bai and her colleagues to disseminate the news of the lawsuit heated the topics of gender, sex, and sexuality that are largely unfamiliar among the public. These topics raise questions about China's promise to its citizens regarding equity, justice, citizenship, and the rule of law.

The emergence of the intersection of individualized gender-related argument with institutional questions of governance shows that political ideas do not exist in abstractness, but are embodied and redefined by personal practice. Suing the MoE, the top administration governing Chinese education, on the one hand, shows a young student's determination to earn a friendlier educational environment and transformation into an activist, but more importantly, re-enliven the politics of education by making "a *strong* case for *weakness* as a kind of contingent yet constituting power that can transgress the institutionalized, constituted power of measurement and testing, opening up to another, more ethical

appreciation for the 'beautiful risk'" (Lewis 2014, 303; emphasis in original). "Politics is not a function of place, social categories, or abstract concepts," Fabio Lanza argued (Lanza 2010, 7), "but it lies rather in the ability to produce a space in which a new every day can be experienced, new relationships formed, and alternative lives can be lived." The feminist politics displayed in this case achieved its goal of using the constructed feature of gender to disturb the already fossilized notion of education (either in its political or economic mission statement) in neoliberal China. What can be learned from Qiu Bai's lawsuit in terms of forging a counter-hegemonic alliance, however minor, is not so much of a model of activism that normalizes the patterns of resistance than of a permissible attitude to nonconformity. The latter element invokes the humanist nature of education, the deliberation of difference not submissive to the "economization" of government and everyday life.

Conclusion

This chapter locates the activist rationale that originated the contemporary Chinese feminist movement in the predominantly neoliberal era. This means that despite the ambiguous relationship that the feminist movement holds with neoliberalism—a pervasive economized rationality of governing, its most significant contribution is creating a discursive space where education can slow down to care about, rather than suppress, the ambiguities and contradictions of subjective identities. Signifying what Tani Barlow termed "colonial modernity," the "women's problem" has led the envisioning of the accountability of modernist Chinese education throughout the twentieth century. The dominant eugenics and biopolitics that frame the mission of education are now being challenged by critical feminist thoughts that reevaluate the ontological meaning of difference from non-heteronormative perspectives. By bringing up the contestation of the philosophies of gendered difference, the contemporary Chinese feminist movement provides scholarly and educational inquiry a window to recognize and rethink about the sexualized elements in the desire modern China has to portray and emulate the West. To the present, the contestation's significance lies in its recognition of human's vulnerability, which challenges the territorialization of "danger" that makes education both intimidating and susceptible.

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CHAPTER 8

Gender, Higher Education, and Earnings: The Case of Hong Kong

Linda Chelan Li and Iris Chui Ping Kam

Introduction

Capitalist development of Hong Kong since the colonial rule of the British government has contributed to greater chances for women's employment and earning mobility. From a historical perspective, the opportunity for women to participate in the manufacturing industry has been on the rise from the 1960s to 1970s. However, women at the time took up employment mainly as cheap, unskilled factory workers due to their lower educational level, and limited government support for industrial growth and labor protection (Chiu 1994; Choi 1999; Jones 1990; Salaff 1981). The increasing demand for more local talent to serve the growing public and business sectors led to the expansion of educational

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opportunities since the period of the 1960s and 1970s—first, with the institutionalization of six-year compulsory education (up to primary school level) in 1971, and then, to nine years (up to the junior secondary school level) in 1978. Both women and men benefited from these moves. In 1971, 69.2% of females and 80.0% of males between the ages of 12 and 16 were attending schools. By 1981, these numbers had grown to 83.4% (male) and 84.6% (female) and reversed the gender distribution (Lee 2003a, 5). However, the increase in educational attainment of women did not much help their employment opportunities, and the employment situation of women with lower education level deteriorated further when local industries took advantage of China's open-door policy and relocated much of their production process to southern China in the 1980s. For instance, the share in manufacturing employment dropped by 56.7% between 1987 and 1995, in which the change was 51.7% for males but 61.8% for females (Chiu and Lee 2003, 103).

Hong Kong's economy has shifted from a focus on labor-intensive export-oriented manufacturing to services since the 1980s. While manufacturing employment was in decline, employment in commerce, as well as in the finance and business sectors was on the rise. For example, in the commerce sector, it rose from 20.8% in 1981 to 28.6% in 1994; for the finance and business sectors, it rose from 5.0% in 1981 to 11.5% in 1994 (Chiu and Lee 2003, 100). As Hong Kong became an integral part of the regional economy of the Guangdong-Zhujiang Delta, its economic lifeblood has been tied to the provision of financial and commercial services to international and local businesses. This has led to the rise in demand for more professionals and managers throughout the economic restructuring period. With the further expansion of territory education since the 1990s, employment opportunities for women with higher education levels have also expanded. It is in this connection that the discourse of "a bourgeois woman subject" emerged (Lee 2003b, 200). This phenomenon places emphasis on middle-class women professionals as agents of free choice. For instance, according to the Gender Inequality Indices (GII) in the United Nations Human Development Report 2015, women and men in Hong Kong fare fairly equally in reproductive health, empowerment, and the labor market (GII = 0.08, 0 means women and men fare equally and 1 means women fare as poorly as possible in the three measured dimensions). Notwithstanding this apparent equality, the

indices may have neglected the institutionalized aspects of gender inequality. Indeed, an official office has recognized that "women are still comparatively less favored than men in terms of employment earnings" (Women's Commission 2016, 19). Such data suggest a need for a closer examination of the situation and the related information. This chapter examines the important question of whether education plays a significant role in narrowing the gender gap in employment and earnings. Special focus is placed on the employment patterns of women with post-secondary education level achievement.

Trends of Women's Participation in Higher Education in Hong Kong

Women's Higher Education Participation on the Rise

> Opportunities to education and training are important in empowering and enabling women to fully participate in different aspects of society. (Women's Commission 2016, 15)

The Education Ordinance 1971, which came into operation on 30 September (CAP 279 of Hong Kong Legislation), empowered the Director of Education to order parents to send their children to school (Sweeting 2004, 261). Although the Ordinance was not particularly aimed at girls, it nevertheless had the effect of dramatically increasing their school attendance levels. Among the female population aged 15 and above, 28.0% received post-secondary education (degree and non-degree) as against 34.2% for men in 2015. The numbers of women and men who have received post-secondary education in 2015 increased by 95.8 and 96.6%, respectively, when compared to data in 1996 (Fig. 8.1). However, the gender ratio of population aged 15 and above with post-secondary degree education is narrowing. Gross numbers decreased from 1,432,000 in 1996 to 1,002,000 in 2015 (Fig. 8.2). In particular, while males of age 50 and over with post-secondary degree education largely outnumbered females in the same age group (F = 104,800 vs. M = 175,400 in 2015), females of ages between 15 and 39 with post-secondary degree education slightly outnumbered males in the same age group (F = 495,100 vs. M = 424,600) in 2015 (Census and Statistics Department 2016, 68). Moreover, female students enrolled in

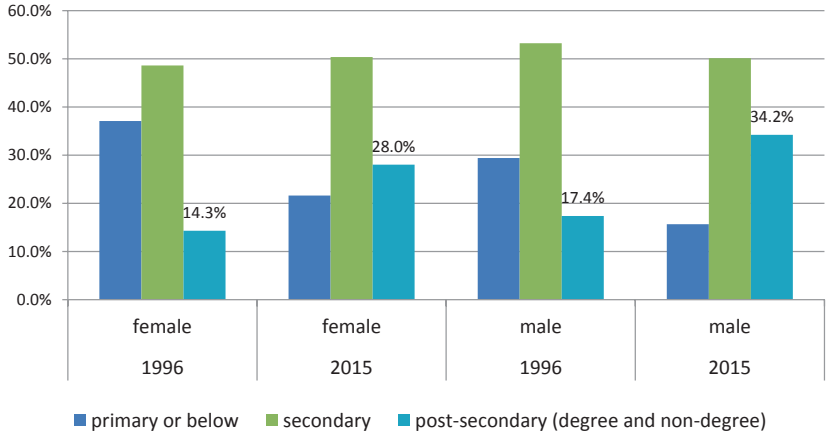

Fig. 8.1 Population aged 15 and over by sex and educational attainment (1996 vs. 2015) (*Source* Census and Statistics Department 2016, 63)

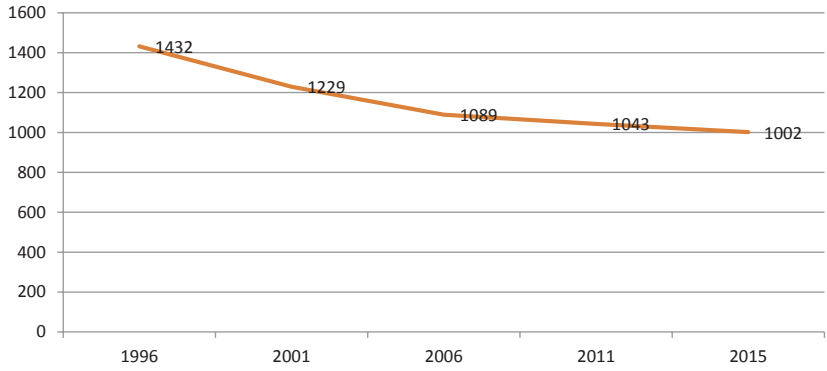

Fig. 8.2 Sex ratios of population aged 15 and over with post-secondary degree education [men per 1000 women] (*Source* Census and Statistics Department 2016, 66)

higher education programs funded by the University Grants Committee (UGC) have continued to outnumber male students and constituted 54.3% in the 2015/2016 academic year. The percentage change is +8.4% over a decade (Table 8.1).

Table 8.1 Percentage of female students enrolled in government-funded higher education programs in 2015/16

	2015/16 (%)	*% change over a decade ago*
Undergraduate	55.0	+10.9
Taught postgraduate	61.3	+69.3
Research postgraduate	42.3	+43.4
Overall	54.3	+8.4

Source Census and Statistics Department (2016, 71)

Table 8.2 Students enrolled in programs funded by University Grants Committee by academic program category and sex

	1996/97		*2015/16*	
	Female	*Male*	*Female*	*Male*
Medicine	730	1228	1624	1690
Dentistry	116	183	217	171
Health	1860	900	4452	2235
Sciences	5022	9087	6205	9800
Engineering and technology	2461	14,967	5917	13,481
Business and management	12,639	8455	10,925	7476
Social sciences	6401	3219	8822	4670
Arts and humanities	9129	2550	9607	3436
Education	4476	2126	6163	2435
Overall	42,835	42,715	53,932	45,393

Source Census and Statistics Department (2016, 73)

Gender "Clustering" in Subjects Persists … Though Easing

Regarding the gender difference in the selection of academic subjects, male students continuously outnumbered female students in science fields, but the percentages are on a downward slant. For instance, male students enrolled in the medicine program decreased from 62.7% in 1996/1997 to 51.0% in 2015/2016; in sciences programs, they decreased from 64.4% in 1996/1997 to 61.2% in 2015/2016; in engineering and technology programs, the participation fell from 85.9% in 1996/1997 to 69.5% in 2015/2016. Although the number of female students still predominates in arts subjects, their share in arts and humanities programs dropped slightly from 78.2% in 1996/1997 to 73.7% in 2015/2016. On the contrary, female students enrolled in the dentistry program rose significantly from 38.8% in 1996/1997 to 51.0% in 2015/2016 (Table 8.2).

Trends of Women's Participation in Employment and Earning

> Women are still comparatively less favorable than men in terms of labor force participation rate and employment earnings. (Women's Commission 2016, 19)

Increased Women's Labor Force Participation

For the overall picture, the female labor force participation rate is on the rise from 47.8% in 1996 to 54.8% in 2015, a percentage change of +14.6%. By contrast, the male labor force participation rate dropped from 75.7% in 1996 to 68.8% in 2015, a percentage change of −9.1% (Table 8.3). Looking at the post-secondary degree level only, the labor force participation rates of both genders were high with similar if weaker trends framing the overall picture. The female participation rate was on the rise from 69.1% in 1996 to 72.9% in 2015 (+5.5%), while the male rate decreased slightly from 81.4 to 80.3% (−1.4%) (Table 8.4).

Gender Clustering in Industry

Female employed persons have outnumbered their male counterparts in retail, accommodation and food services, and community, social, and personal services industries. The last category, community, social, and personal services, comprises a wide range of services including education, medical, and other health services, welfare, and community services, public administration, and other services. On the other hand, male employed persons dominated the construction, transportation, and logistics sectors (Women's Commission 2016, 25; Census and Statistics Department 2016, 150–152). The percentage share, as well as the intensity of percentage change over years of males with post-secondary level education, is higher than that of females in all sectors. The exception

Table 8.3 Labor force participation rates by sex

	1996 (%)	*2015 (%)*	*% change*
Female	47.8	54.8	+14.6
Male	75.7	68.8	−9.1
Overall	61.6	61.2	−0.6

Source Census and Statistics Department (2016, 102)

Table 8.4 Labor force participation rates by educational attainment (with post-secondary degree) and sex

	1996	*2015*	*% change*
Female with post-secondary degree	69.1	72.9	+5.5%
Male with post-secondary degree	81.4	80.3	−1.4%
Overall	61.6	61.2	−0.6%

Source Census and Statistics Department (2016, 107)

Table 8.5 Employed persons by selected industries, educational attainment (with post-secondary level), and sex

	2008 (%)	*2015 (%)*	*% change*
Retail, accommodation and food services			
Female	10.8	17.6	+63.0
Male	13.5	19.9	+47.4
Public administration, social, and personal services			
Female	34.7	40.0	+15.3
Male	45.1	54.3	+20.4
Import/export trade and wholesales			
Female	35.2	40.4	+14.8
Male	40.8	48.7	+19.4
Financing, insurance, real estate, professional, and business services			
Female	43.6	48.5	+11.2
Male	47.3	56.5	+19.6

Source Census and Statistics Department (2016, 154–160)

is the percentage change over these years of female employed persons with post-secondary level education in retail, accommodation, and food services which is higher than that of males. The percentage change of female employed persons with post-secondary level education is +63.0%, an increase from 10.8% in 2008 to 17.6% in 2015, while the percentage change of male employed persons with post-secondary level education in the same sector is +47.4% only (Table 8.5).

Gender "Clustering" in Job Genres Persists

Women persistently outnumbered men in support role jobs, while men persistently outnumbered women in administrative-professional jobs.

The proportions of female clerical support workers, service, and sales workers, as well as those in elementary occupations, were relatively higher than those of males. For instance, there were a total of 67.2% of women in these occupations, but only 34.7% men in 2015 (Census and Statistics Department 2016, 161–168). Although the number of female employed persons with post-secondary education level achievement outnumbered that of male counterparts with the same education level among clerical support workers and elementary occupations, the intensity of percentage change over years of females with a post-secondary level education in these occupations was lower than that of male counterparts at the same education level in the same occupations when compared to the data between 2011 and 2015 (Census and Statistics Department 2016, 165–167, 173; Women's Commission 2016, 24, 26–28). This implies that an increasing number of male employed persons with a higher education level is working in support role/jobs.

Males employed as managers, administrators, and associate professionals outnumbered females. For instance, a total of 45.2% of men occupied these occupations, but only 31.8% were held by women in 2015 (Census and Statistics Department 2016, 161–168). However, the proportion of female managers and administrators as well as associate professionals has increased steadily. The intensity of percentage change over recent years of female employed persons as managers and associate professionals was greater than that of males when viewed through the data between 2011 and 2015. This is partly because the intensity of percentage change over the years of females employed at the post-secondary education level in managerial and administrator positions, as well as in associate professionals, was higher than that of male employed persons with the same education level in these occupations when viewed through data between 2011 and 2015 (Census and Statistics Department 2016, 165–167, 173; Women's Commission 2016, 24, 26–28).

Males still outnumbered females as managers and administrators in both female-dominated clusters such as manufacturing, retail, accommodation and food services, and public administration, social, and personal services, as well as gender-neutral clusters such as the import/export trade and wholesale, and in finance, insurance, real estate, and professional and business services. However, the rate of percentage change over recent years of male employed persons is slower than that of female employed persons in manufacturing, import/export trade and wholesale, and retail, accommodation, and food services, but faster than that

Table 8.6 Median monthly employment earnings of employed persons and median hours of work by sex

	1996	*2015*	*% change*
Medium monthly employment earning			
Female	$8000	$11600	+45%
Male	$10000	$16700	+67%
Median hours of work			
Female	44	44	
Male	48	45	−6.3%

Source Census and Statistics Department (2016, 250, 267)

of female employed persons in finance, insurance, real estate, professional and business services, and public administration, social, and personal services when compared to the data between 2011 and 2015 (Census and Statistics Department 2016, 194–200).

Gender Inequality in Pay Persists

The improvement in educational attainment for women has not yet contributed to gender equality in pay. The percentage change of monthly employment earning is +45% from $8000 in 1996 to $11,600 in 2015. However, it was +67% for males, increasing from $10,000 in 1996 to $16,700 in 2015 (Table 8.6). On the whole, a wage gap persists between females and males in the same occupations and roles (Women's Commission 2016, 31).

Of employed persons with a post-secondary education, the median monthly employment earnings of males were still higher than those for females. However, the intensity of percentage change over years of median monthly employment earnings for female employed persons with a post-secondary non-degree level was greater than that of males, while the rate for female employed persons at the post-secondary degree level still lagged behind that of their male counterparts between 2004 and 2014 (Women's Commission 2016, 32).

Over this period, the median hourly wage (MHW) level was higher for men than for women at all education levels (Fig. 8.3). Even more striking, the intensity of percentage change over the years of the overall hourly wage level for men was higher compared to that of women when assessed with data between 2004 and 2014. In particular, the hourly wage level for both women and men was on an upward trend, except for female employed persons with post-secondary education: It ranged

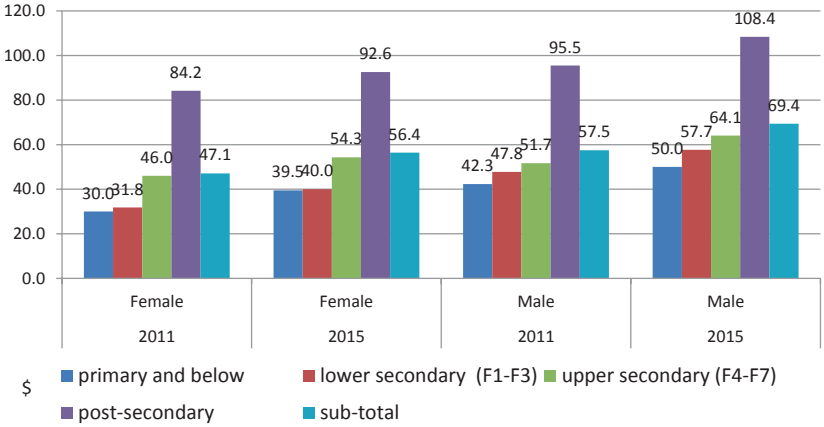

Fig. 8.3 Hourly wage levels and distribution of employees by sex and educational attainment (*Source* Census and Statistics Department 2016, 274–275)

from 57.0 to 150.0% in 2004, to 56.4 to 146.1% for female employed persons in 2014, compared with 65.0 to 166.7% in 2004 with 67.8 to 173.0% in 2014 for male employed persons with same level of educational attainment (Women's Commission 2016, 34).

Across occupations, the hourly wage level for male employed persons was higher than that of female employed persons. The notable exception was for clerical support workers for which the hourly wage level for female employed persons was higher than that of male employed persons between 2004 and 2014. However, the intensity of percentage change over the years of the hourly wage level for men as clerical support workers was higher than that for women during the same period. In addition, although more female employed persons were now working as managers, administrators, professionals, and associate professions, their hourly wage level was still lower than that of male employed persons in the same occupations. Even of greater notice, the intensity of percentage change over these years of the hourly wage level for female employed persons working as managers, administrators, professionals, and associate professions was slower than that of men in the 50th and the 75th percentiles between 2004 and 2014 (Women's Commission 2016, 35).

Where female employed persons outnumbered males, that is, in the community, social, and personal services industries, the wage gap

Table 8.7 Median monthly employment earnings and medium hourly wage (MHW) in community, social, and personal services by sex

	2008	*2015*	*% change*
Median monthly employment in community, social, and personal services			
Female	$6000	$8000	+33.3
Male	$17000	$20000	+17.6
MHW in community, social, and personal services			
Female		48	
Male		44	

Source Census and Statistics Department (2016, 257)

between women and men was also the largest, in the favor of males. The median monthly employment earnings for women increased from $6000 in 2008 to $8000 in 2015, while for males it increased from $17,000 in 2008 to $20,000 in 2015 (Table 8.7). This significant difference can be attributed to the fact that a relatively larger percentage share of women in this sector was working at lower levels, primarily as associate professionals, clerical support, service, and sales workers (Women's Commission 2016, 26), and with lower educational levels. A closer analysis of the composition of this sector also reveals that 63% of the employed females in 2015 held a secondary education qualification or below. They also face a higher possibility of losing their jobs in this sector because of the higher proportion of female staff (when compared to those employed in other sectors) who have prior experiences of extended unemployment (Women's Commission 2016, 36). Thus, prior experience and lack of job security, together with low educational attainment, may contribute to the lower pay level of female workers in this female-dominant sector.

Limits in Institutional Infrastructure

During the economic takeoff of Hong Kong in the second half of the twentieth century, the Hong Kong Government largely relied on the broad frameworks of the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social, and Cultural Rights (ICESCR) to protect the rights of both men and women (Ng and Ng 2004). The rights of women (as well as men) in labor participation received more explicit policy attention when the Legislative Council passed a motion to extend the United Nation's

(UN) Convention on the Elimination of Discrimination against Women (CEDAW) to Hong Kong in 1992. The extension of CEDAW was endorsed by the government in 1996, and the Equal Opportunities Commission (EOC) was established in the same year. A series of ordinances was enacted, including the Sex Discrimination Ordinance (1995), the Disability Discrimination Ordinance (1995), and the Family Status Discrimination Ordinance (1997), together with the further expansion of territory education, the establishment of the Women's Commission in 2001, and the introduction of Gender Mainstreaming in 2002[1] in public services. These initiatives were in general aimed at eradicating the institutional barriers for women to reach their full potential. However, available data suggest that unequal treatment in the workplace, including the persistent gender gap in employment and earnings, and gender stereotypes framing the role of women in and outside the home are still common in Hong Kong society. Some limited progress at the policy level has emerged, with measures such as "invest in childcare support," "legislate family-friendly practices," "more gender-sensitive policymaking," and "increase awareness of gendered effects of policies" on the books of various policy units. Their effectiveness and impacts are questionable, however, and it appears that there have been more "talks" than "walks," or that the significance has been far too little (see, e.g., Lam, n.d.; Women's Commission 2006). For example, the promotion and implementation of a three-day statutory paternity leave was hailed as a big step forward in gender equality in Hong Kong (in which maternity leave for female employees is 10 weeks). However, the improvement pales in comparison when arrayed against reasonable comparatives. For example, paternity leave in Mainland China lasts for 14 weeks (this is the same as the maternity leave for female employees which was extended to 14 weeks (98 days) in 2012 from the previous 90 days [Dezan Shira & Associates 2017]), and Singapore 16 weeks for babies born after January 1, 2017 (Channel NewsAsia 2016). (This is the same as the maternity leave for female employees, which is 16 weeks under the Child Development Co-Savings Act [SGCGO 2012].) In both cases, the governments of China and Singapore have offered financial support to a proportionate amount of leave in its implementation. Whether or not Hong Kong can adopt the practices of China and Singapore may need further discussion and exploration, as the political-economic systems of the three places are

so different. However, the disparity between the length of maternity and paternity leave in Hong Kong not only continues to straitjacket men and women into traditional gendered roles, but also puts women in a less favorable position in the workplace (Springer 2016).

Weak Authority of the Government Institutions in Charge of Gender Equality

One of the main factors contributing to the limited effectiveness for promoting the awareness of gender bias of the general public is the weak authoritative status of the key institutions charged with gender policy and practice in Hong Kong. The Women's Commission (WoC), which is in charge of the design of the Gender Mainstreaming Checklist, for example, has only an advisory status in the government. As a result, the participation of various departments such as the Social Welfare Department, Health, Welfare, and Food Bureau, Home Affairs Department, and so on, when piloting the Gender Mainstreaming Checklist in government departments, was on a voluntary basis. Moreover, "gender mainstreaming has ceased to be a priority task for the WoC since 2007" (Chan 2017). While it is required by the Chief Executive that all bureaus and departments should apply Gender Mainstreaming when formulating major government policies and initiatives by the 2015 Policy Address (and also extended to non-government organizations in the social sector on a pilot basis in the 2016 Policy Address) (Hong Kong Government 2015a, 2016), the effectiveness in implementation may be called into question due to the lack of clarity in terms of which government office is taking up the role of central coordination of the Gender Mainstreaming instead of the Women's Commission. Moreover, the government has not yet enforced the application of the Gender Mainstreaming Checklist in the business sector as the government in general adopts a laissez-faire and non-intervention approach in regulating economic decisions and practices. This means that the business sector may, if it wishes, initiate gender equality policy on a voluntary basis. If the gender stereotypes affecting the role of women in and outside the home still exist in society, it necessarily affects the employment and earnings of women in the workplace.

The Lack and/or Inadequacy of Gender Education in School and University Curricula

Education is another significant factor. Based on the experiences gained from implementation of the Gender Mainstreaming Checklist, the members of the Women's Commission are already aware of the necessity to "redesign gender training program content" and "strengthen gender training and public education" (Chan 2017). In fact, it is also the policy direction of the Equal Opportunities Commission to enhance public education for employers and human resource managers on the benefits of gender equality in the workplace (Lam, n.d.). However, to properly promote gender education, the concept of "gender" needs to be handled very carefully and not restricted solely to the relationship between women and men. Rather, gender equality requires an awareness of the differentiation between "sex" (which is biological) and "gender" (which is sociological-cultural). It also requires a genuine reflection on the roles of each gender, gender identity, and the dominant discourses on gender in society and practices. As Kam (2012) has argued, in the current discourses of sex, personal, and social education, girls are presumed to take up their appropriate gender roles according to the prevailing social norms of contemporary Hong Kong without much explicit reflection. On the one hand, sex and gender education is still being marginalized in the formal curriculum in primary and secondary schools. On the other hand, gender stereotypes such as the "male-first" phenomenon and the visual under-representation of women are still prevalent in textbooks and workbooks in schools (see, e.g., Lee and Collins 2008; Equal Opportunities Commission of Hong Kong 2001; Chan 2014). This may partly explain why the improved access to education has not helped to narrow the gender gaps in employment and earnings, as gender stereotypes of the role of women in and outside the home have largely remained intact.

Corporate Structure Irresponsive to Gender Equality

It is stated clearly in a presentation of the Equal Opportunities Commission that women as role models are important for the promotion of gender equality policy and practice (Lam n.d.). One of the key indicators would be the proportion of women on governing boards. A report in 2016 indicates that nearly 40% of the companies listed on the

Stock Exchange of Hong Kong have all-male boards (Springer 2016). According to *Women on Boards Hong Kong 2015*, "there has been little real movement on the number of companies with female executive directors." The number has inched up from 12 women since 2012 to 13 women in 2015. This is the same number as in 2009, but with the growth of the HSI from 42 companies in 2009 to 50 in 2015, it represents only 26% of the companies (Community Business 2015, 3). No known proactive action has been taken to narrow the gender proportion on the boards of directors by the government, regulators, or other key actors. In the consultation on "Board Diversity" by the Stock Exchange of Hong Kong (SEHK) in 2012, the results indicated that more than 98% of the respondents considered that the SEHK should not set a quota for the minimum proportion of female members on the board of a listed issuer, even though they are supportive of the inclusion of board diversity as a new measure in the Corporate Governance Code of the Listing Rules. They argued that "board diversity should not be confined to gender but to gain different perspectives through diversity of members in age, culture, educational, and professional background." However, no measures have been discussed to improve the situation as some members expressed their concern that "a compulsory requirement on the gender proportion of the members on the board would pose practical operational difficulties to listed issuers" (Hong Kong Government 2015b). In fact, this line of thought contradicts that of the Women's Commission which stated clearly in the Gender Mainstreaming Checklist that "we need to make gender (as) an independent consideration to ensure fair and equitable treatment between women and men" (2015, 2).

In a similar vein, the percentage of females at the senior management level in the education sector was small. Table 8.8 indicates the estimated number of females in the Office of the President, Council, and Senate in the eight government-funded universities in Hong Kong in which males outnumbered females in all situations with only one exception—females outnumbered males in the Office of the President in Hong Kong University of Science and Technology (HKUST). As members of Council and Senate are appointed from various stakeholders in society, the female proportion of senior management in the higher education sector may reflect and be restricted by the proportion of female leaders in various fields.

Table 8.8 Estimated number of female in Office of the President, Council, and Senate women in the eight government-funded universities in Hong Kong (as of October 2016)

		HKU	*CUHK*	*HKUST*	*CITYU*	*BU*	*POLYU*	*EDUHK*	*LU*
Office of the President	Male	7 (87.5%)	21 (84.0%)	4 (40.0%)	6 (100%)	18 (100%)	22 (88.0%)	/	7 (87.5%)
	Female	1 (12.5%)	4 (16.0%)	6 (60.0%)	0 (0%)	0 (0%)	3 (12.0%)	/	1 (12.5%)
Council	Male	18 (75.0%)	46 (88.5%)	24 (88.9%)	19 (82.6%)	28 (75.7%)	21 (84.0)	15 (57.7%)	24 (66.7%)
	Female	6 (25.0%)	6 (11.5%)	3 (11.1%)	4 (17.4%)	9 (24.3%)	4 (16.0%)	11 (42.3%)	12 (33.3%)
Senate	Male	43 (87.8%)	137 (85.1%)	55 (85.9%)	111 (87.4%)	/	97 (85.8%)	/	60 (77.9%)
	Female	6 (12.2%)	24 (14.9%)	9 (14.1%)	16 12.6%)	/	16 (14.2%)	/	17 (22.1%)

Note The data have been collected by the authors by browsing the Web sites of each university and counting the names appeared in the Web sites manually in October 2016

Conclusion

Official statistics in Hong Kong do not furnish sufficient details to allow for a more detailed examination of the relationship between the trends of women's participation in higher education and the gender gap in employment and earnings. Despite the limitation in the statistical data available, the information does point strongly to these observations: (1) the improvement of females in educational attainment took place in alignment with a rise in the female labor force participation rate; (2) however, the increases in either educational attainment or labor participation have *not* led to a corresponding rise of percentage share of females with higher education in employment of job types and of higher social status, or in traditionally male-dominated sectors, or to gender equality in wages. While increasing attention has been paid to pay equity as a strategic business imperative in global trends (Mercer 2017), the Hong Kong business community has yet to catch up in this respect. Gender inequality in employment and earnings is not an individual problem for women alone. Despite early efforts by the government, institutional barriers persist for women to reach their full potential. One important and necessary step now is to engage with different stakeholders in government, business, non-government organizations, and education to exchange views on how to genuinely "link gender equality to benefits for all" (Lam n.d.), and to build consensus on strategies and measures to implement gender training and public education.

Note

1. Gender Mainstreaming is regarded as "one of the key strategies in achieving women's advancement and gender equality by the Government of the Hong Kong Special Administrative Region (HKSAR)" (http://www.lwb.gov.hk/Gender_Mainstreaming/eng/introduction.html).

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CHAPTER 9

Gender and Leadership in Research Universities in Malaysia: The Case of University of Malaya

Surinderpal Kaur

Introduction

Recognizing the benefits to the economy, the Malaysian government seems to be committed to increasing women's participation in the labor force and reducing the current gender imbalance. It is significant that the Eleventh Malaysia Plan (2016–2020), extending from the Tenth Malaysia Plan, continues to emphasize the move toward a knowledge economy alongside ensuring 30% women participation at the managerial and decision-making levels in both the public and private sectors. This has had great implications for the Malaysian HE sector which has 20 public universities that include five research-based universities.[1]

Currently, women are far from being under-represented in HE in Malaysia. The HE participation rates for women have been increasing significantly both in terms of students as well as the academic labor force

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(Morley et al. 2016) over the last few decades. Although women's participation in academic leadership positions has been on the rise (albeit somewhat slowly), the question of achieving a critical mass of women in senior leadership positions in HE cultures in Malaysia remains of significant concern. As of August 2016, women professors make up just 30% of the total 1945 professors in public universities. The situation is somewhat similar with women's participation in general managerial positions: there is a 25% participation in senior positions (Vice-Chancellor and Deputy Vice-Chancellor level) and 33% in middle managerial positions (Deans and Directors).

Furthermore, the question of how senior academic leaders enact academic leadership and negotiate leadership cultures is of great significance. As gender is embedded and built into organizational structures and institutional governance (Wharton 2012), the modes of governance and the structures of management in higher education cultures often seem to represent masculine communities of practice. In the University of Malaya, the leading research university in Malaysia, although almost 50% of both senior and middle management teams comprise women, the academic leadership culture still shows traces of being a masculine community of practice. Since 1965, only one of its eleven Vice-Chancellors has been a female. Currently, only one member of the Board of Directors for the university is female. Furthermore, at the faculty level, there is still evidence of horizontal segregation where some faculties, such as those in Engineering and Sciences, are overwhelmingly male in their management teams while social sciences-based faculties such as the Linguistics and Business faculties seem to be more "feminized" with a majority of female participation in the management teams.

Thus, it is imperative to examine the ways in which leadership cultures in Malaysian research universities in general, and in the University of Malaya (UM) in specific, can be seen as shaping gender identities, especially in terms of negotiating leadership and gender roles. This chapter is an examination of gender and leadership in the UM, the leading research university in Malaysia, focusing on the representation of women in leadership positions in UM as well as the enactment of gendered leadership in an academic culture. The key question that arises here is how women academic leaders not only achieve leadership positions in a seemingly masculine community of practice, but also negotiate an academic leadership culture that is both gendered and engendering in turn.

Current Thoughts About Leadership and Gender

Leadership has been studied in a range of diverse perspectives ranging from the early notions that explored whether leadership was an innate quality, to examinations of differing leadership styles. One significant focus of examination has been the distinction between "transactional" and "transformational" styles of leadership. A transactional leader is managerial in his or her leadership style, using rewards in exchange for high performance to motivate people. A transformational leader on the other hand is one who is able to motivate people to transform themselves to focus on the interests of the group rather than on their own self-interest. Alvolio argues that transformational leadership can use as its base the transactional leadership style. Recent arguments on leadership put forward the view that leadership is a collective effort in which individuals working in different levels of an organization engage with each other as a group. Thus, taking the social constructionist perspective, leadership—rather than being completely a sole effort—is enacted collaboratively by a team of leaders who share socially situated sets of available (linguistic) resources (Kets de Fries et al. 2010).

No matter through which lens one views leadership, there is no doubt that leadership as a concept and as a construct is highly gendered and thus contested. Studies have shown that while an increasing number of workplace leaders are female, the prevailing stereotype of a leader has been male and leadership is seen as a decidedly masculine construct. Furthermore, women's perceived leadership styles have also come under scrutiny. Vinnicombe and Singh (2002) suggest that a woman's management style is based upon respect and regard for her team members' contribution as well as the development of the individual's talents. Holmes (2006) takes a more discursive perspective and describes the female leadership style as being more "relational." She further argues that irrespective of gender, leaders can draw upon a repertoire of "interactional strategies" which can in turn be perceived in stereotypical ways as being either feminine or masculine. However, leaders are bounded by the community of practice in which they operate from, which can be either masculine or feminine and can influence the ways in which they use relational or transactional styles (Mullany 2007).

Baxter (2010, 18) extends this argument further by arguing that the entire corporation can be gendered as specifically gendered discourses regulate the way employees interact and behave. She identifies three differently gendered corporate cultures: the "male-dominated corporation" in which men are seen as the "natural born leaders" while female leaders are seen as mere tokens. The "gender-divided corporation" is one in which men and women are segregated in stereotypically gendered roles while the "gender-multiple corporation" is one in which gender does not play a main part in the organization of roles, but rather intersects with other identity markers such as age, education, class, and ethnicities. In an organization such as this, women and men play multiple roles at various levels across the organization.

Gender and Leadership in an Academic Culture

The literature on gender and leadership in higher education is extensive and often revolves around the differences and the inequity between men and women in terms of hierarchy and power. Studies have indicated that women academics play a less significant role as principal investigators in research projects, in being awarded large grants (Husu 2014), and as journal editors. Although women's participation in senior management is increasing, Husu (2000, 172) argues that gender inequality and inequity in the academic sector are a "persistent and global phenomena." Bagilhole and White (2011) suggest that senior management roles and positions in higher education senior management are gendered while Carvalho and de Lourdes Machado (2011) argue that similar to the corporate world of business, women are also marginalized in senior academic management roles.

Literature on academic identities does not focus much on the diversity and differences among women's and men's experiences in academia. While it is important to highlight the commonalities among women's experiences in higher education, it is equally important to problematize monolithic interpretations of gender inequity in higher education. Multilayered interpretations of the diversity in enacting leadership, as well as interpreting the experiences of leadership among women themselves, are worthy of study and should take into account intersections between gender, sexuality, ethnicity, age, and class among other interconnected factors.

This chapter addresses this particular gap in the literature by acknowledging intersectionality—where gender (although playing an important role) is seen as one among other factors. I would argue that in multi-ethnic and multi-religion Malaysia, the main issue that arises is not just a case of men academic leaders versus women academic leaders in the Malaysian higher education context, but rather it is a case of *which* men and *which* women leaders. The appointment of the Vice-Chancellor at all public universities is a political appointment which has ethnic implications; thus while gender does play a role (as the Malaysian society is still deeply patriarchal and pro-male), the role that race plays in the appointment of the Vice-Chancellor is also significant. The intersections between gender, leadership, academic and social capital, race and power relations as well as political affiliation, make the issue of leadership and gender in higher education in Malaysia more complex than the issues the current literature in the field addresses.

Conceptual Framework: Gender and Discourse

In order to bring the notions of gender, discourse, and academic leadership together, the conceptual underpinnings for this chapter are three pronged, drawing from the socio-constructionist approach to gender, feminist post-structuralism as well as critical discourse studies.

The socio-constructivist approach to gender does not see gender as having a stable or fixed meaning (Christie 2000, 34), but rather views gender as a "social process" (Weatherall 2002, 85) where social actors are active participants in the "doing" of gender. Gender thus is an ongoing, dynamic process which is produced from and constituted in social interaction.

Critical discourse studies (CDS), take as their main focus the critical investigation of the relationship between social inequality and discourse. The main function of critical discourse studies is to reveal the ideologies that surround social practices and norms concerning particular representations such as gender. Holmes and Meyerhoff (2003, 13) assert that critical discourse studies aim "to reveal connections between language, power and ideology, describing the way power and dominance are produced and reproduced" in discursive practices that engender social actors in various ways.

Taking its cue from Foucault, CDS see discourse as a form of social practice, i.e., a set of "practices that systematically form the object of

which they speak" (Foucault 1972, 49), and construct "some form of reality from a particular perspective" (Chouliaraki and Fairclough 1999, 63). Discourse is seen as a social and ideological "practice, not just of representing the world, but of signifying the world, constituting and constructing the world in meaning" (Fairclough 1992, 64) while discursive practices are seen as specific forms of social practice produced through, by and in discourse (Fairclough 1992; Wodak 2001). Critical discourse analysts argue that discourse can function ideologically, i.e., it can make it seem as if particular representations of social and biological worlds (such as gender roles) are natural and a given.

Although there are many approaches that are part of the critical discourse studies school, this chapter draws extensively from Sunderland's framework of "gendered discourses." Sunderland's (2004) work on gendered discourses is especially significant in terms of viewing gender through the lens of "interpretive discourses." Sunderland draws heavily on Foucault's view of discourses as "practices that systematically form the objects of which they speak." Sunderland calls discourses (in the countable noun) as "ways of seeing the world, often with reference to relations of power" (Sunderland 2004, 6). She explores not only what a discourse is and how it is produced, but also, what it does (Sunderland 2004, 8). A gendered discourse then allows us to see or identify what the discourse is, and how it is produced and connected to other (competing or complementing) discourses, as well as how it is constructed, performed, represented, and indexed (Sunderland 2004, 22), and importantly what it does to individuals in terms of constituting them or being constituted by them. Distinguishing between descriptive and interpretive discourses, Sunderland argues that descriptive discourses are those that describe interactions between individuals in a specific context, for instance "classroom discourse" or "parliamentary discourse" or "architectural discourse." Discourses that are "broad constitutive systems of meaning" (2004, 6) are interpretive discourses as they can be seen as ideologies (the shared interests of beliefs of a social group).

Sunderland (2004) emphasizes some key characteristics of discourses to which an analyst should pay attention (see also Litosseliti and Sunderland 2002), namely that discourses

- represent and constitute ways of thinking and doing
- are ideological

- are recognizable and have meanings
- exist in relation to other discourses
- can complement or compete with other discourses

According to Sunderland, in order to explore what a discourse is, one has to first be able to identify and name it. Discourses exist if they have some social meanings for (some) people and are "provisionally recognizable" to them (Sunderland 2004, 28). Discourses often carry traces or cues of particular social meanings and other discourses, exhibiting them through textual triggers such as words (written or spoken), or extra-textual triggers such as memories. Certainly, discourses cannot be identified in any straightforward or self-evident ways (ibid). Discourses that are provisionally recognizable can be named or labeled—this is what makes discourses interpretive. People's identification of discourses is based on how they interpret them, and interpretations of a discourse do not have to be exactly the same for everyone. Sunderland observes that there are some gendered discourses which have already been identified and named, citing the example of the "gender differences discourse" and the discourse of compulsory heterosexuality, among others.

Connected to this is the feminist post-structuralism notion that meanings cannot exist a priori to their articulation in discourses. Discourses themselves represent competing political and institutional interests and vie for power within the site of the subjectivity of the individual (Weedon 1997, 40). Since meanings are always located in discourses which represent competing political and institutional interests and constantly vie for power, meanings cannot be closed or fixed and are always open to contestation and re-signification. Baxter points out that one key concern for feminist post-structuralism is to deconstruct the dominant discourses of gender differentiation in such a way that instead of reifying gender differentiation as a "monolithic entity," the discourses of gender differentiation are shown as taking varying forms within differing social and cultural contexts, and constituting women within differing and diverse subject positions. Just as importantly, however, these dominant discourses are open to challenge and contestation as well as reconfiguration, both explicitly and/or implicitly. Echoing Weedon (1997), Baxter argues that constructs such as masculinity and femininity are continuously being constructed by dominant social discourses which vie with each other to fix the meaning of these constructs permanently. Although these dominant discourses continuously compete with each other to shape individuals, individuals are

not completely at the mercy of these discourses; rather, they "can be seen as multiply-positioned in terms of their agency [not only] to adapt to, [but also] negotiate or resist dominant subject positions, or alternatively, to take up subject positions within a resistant discourse" (see also Weedon 1997, 86). Feminist post-structuralism then shifts the examination away from simplified binaries to an examination of the contradictory and multiple ways in which individuals (especially women) are located in varying degrees of power relations due to the subject positions available to them. The central concern for feminist post-structuralism is a focus upon "the experience of contradictions as important sites for gaining an understanding of what it means to be a gendered person".

It is these various, diverse, yet interconnected conceptual frameworks which inform the arguments in this chapter in order to examine the types of discourses women leaders draw upon to negotiate academic leadership positions in an institution of higher education which is both engendered and engendering.

Methodology

The research site for this chapter is the University of Malaya (UM) while the research design is based upon a qualitative study which involves documentary and archival evidence as well as semi-structured interviews. The semi-structured interviews involved eight female leaders from various vertical and horizontal levels of management in UM. The questions for the interviews focused on how these women leaders got into senior management positions, their experiences of leadership, their enactments of leadership, and their perceptions of the broader management culture in UM. The findings from the interviews were analyzed in view of the three-pronged conceptual framework explained in the previous section, focusing specifically on the "interpretive discourses" (Sunderland 2004) which reveal the contradictions in the experiences of women leaders and show how women leaders negotiate the gendered (and engendering) constructs of leadership.

The Current Situation in the University of Malaya

In its current form, UM was established in 1962.[2] Recognized as the top university in Malaysia, it was the first university in Malaysia to be awarded the QS 5-Stars ranking (2014, 2017) and is ranked in the

133 position in the QS World University Ranking (2016). UM is a comprehensive, broad-based, research-intensive institution.

As mentioned above, the appointment of the Vice-Chancellor (as well as Deputy Vice-Chancellors) is a political appointment. However, the appointment of other members of the senior and middle management level teams is at the discretion of the Vice-Chancellor. Of the top management roles in the university (which includes the Vice-Chancellor, the Deputy Vice-Chancellors), four are women; if we include the Associate Vice-Chancellors into this level, then we have a 60% female leadership at the top level. On the surface, this seems to give quite a positive picture of female leadership at UM.

A closer look at the situation, however, reveals contradictions. It is significant that of all of the women (and male) leaders at the senior management level, all except one, are from the Sciences, and all are Professors.[3] The positions of the Deputy Vice-Chancellors (DVC) are also not without complexities and contradictions. Gender stereotyping seems to play a role in the appointment of two of the positions—the DVC for student affairs is a female while the DVC for development (infrastructure and building development) is male. This seems to echo current literature that women academics tend to be given responsibilities associated with student support (Morley 2016). However, the DVC for research is female; a contradiction to current literature which finds that male academics are valued more as leaders in terms of research and grant opportunities (Husu 2014).

Although at the middle management level there is more diversity in terms of gender, academic capital, and ethnicity, at the upper echelons of leadership at the university, there is a strong pattern that academic capital (in terms of academic seniority and professorship), the privileging of STEM areas, as well as race factors, play important roles in the appointment of leaders, (including women leaders). Furthermore, there is also the issue of political affiliation and political legitimization for senior management leaders. This once again raises the question of *which men* and *which women* are privileged as leaders in UM.

Furthermore, horizontal segregation is quite evident in the management teams of certain faculties. STEM faculties such as engineering and science, despite having a number of female academics (or even a female dean), have an overwhelmingly male management team.[4] Other faculties, which are based on the social sciences and humanities (Linguistics, Business), are more "feminized" as they have more females in their

management lineup. It would seem that achieving gender equity at the local faculty level is somewhat of an uphill endeavor as the interface between the acquisition of knowledge and skills with normative beliefs about gender roles is still in evidence.

Interview Findings: Gendered Discourses

As stated earlier, discourse constructs and reproduces ideology (in this case specifically, gender ideology). Discourse can and does represent the social construction of reality from specific perspectives which in turn are ideologically loaded. The semi-structured interviews with women leaders show gendered "ways of seeing the world"; (Sunderland 2004, 6) which reflect deeply embedded beliefs of gender-appropriate roles, gender expectations, and gendered behavior. The interviews reveal that gendered discourses can reproduce and reinforce normative assumptions and beliefs about gender expectations and roles, but importantly, they can also resist and subvert those assumptions.

The overarching dominant discourse according to Sunderland (2004) is the "gender difference" discourse. This discourse, premised on differences among men and women, is crucially a "significant lens" for the way people stereotypically conceptualize gender; for most people "difference" is "what gender is all about" (pp. 52). Connected to this is what is known as the "male as norm" discourse, "a trace of which is gender-blindness" (ibid). Sunderland argues that all gendered discourses take their cue from the discourse of gender difference, whether to support it or resist it. Certainly, the findings from the interviews support Sunderland's assertion as the gendered discourses that were identified were interconnected to the gender difference discourse. Some of the main interpretive discourses on gender identified in the interviews are discussed below[5]:

The Discourse of Equal Opportunities for Men and Women

Morley's study (2016) shows that the gendered division of labor relates to the different roles of male and female academics in the university, in the process marginalizing many women from leadership positions. The women leaders in UM, while acknowledging this aspect, also argued that:

> The nature of academic leadership should be gender neutral. It should be the experience, knowledge and skills that count. And cognitively men and women are equal. (WL3)

This response (from a very senior Professor with large grants who is also a Deputy Dean) actively resists the notion that leadership is a gendered construct, privileging the "experience, knowledge and skills" as relevant capital for academic leaders. However, it is significant that no matter how much the discourse resists the sexism inherent in the gender difference discourse, it still subscribes to the notion that there is *some* difference between men and women—by asserting "cognitively" they are "equal," there is an inference that there are other (physical/biological) differences between men and women. Francis (2000, 143) argues that the discourse of equal opportunities views men and women as being different but at the same time enables them to "engage in pursuits traditionally performed by the opposite sex if they so desire." Sunderland (2004) states that the discourse of equal opportunities for men and women is an inherently gendered discourse which, while premised on the gender difference discourse, also actively resists it. Thus this response from WL3, while based upon a normative belief about gender, actively disassociates leadership from that belief, and in the process provides a space for women leaders at the university.

The Discourse of Academic Seniority and Experience as Capital

Related to the discourse of equal opportunities is that of academic skills, position, and experience as relevant capital for leadership. One way of ensuring women's participation in leadership positions is by using academic seniority and experience as capital.

> Confidence is key but that comes with experience, having achievements and success stories and also having an academic title (WL2)

> When they wanted to appoint me, I protested because I didn't have a title. The VC then told me they wanted me based on my expertise and performance. So I had that behind me to be able to boss around TNCs (DVCs), Deans and Professors. (WL1)

Knights and Kerfoot (2004) argue that the competencies and skills that are viewed as essential to leadership are very much embedded in normative definitions of masculinity, privileging men while marginalizing women. The women leaders in UM reject the notion that the competencies and skills necessary for a leader are gendered, rather they are accumulated over time and are affordances to which both men and women have access.

The Discourse of "Older Women Find It Easier to Be Leaders"

> If they don't have the support of their spouse and families it will be difficult to handle the pressures at work and then have to go home and see to household matters. So they need support. So you see older women in positions. It's harder for younger ones with young families cause they want to spend more time with them (WL2)

This discourse bears traces of the gender difference discourse and is in direct contestation to that of equal opportunities as it is premised on the normative assumptions of a woman's role as a domestic caregiver with family responsibilities. It not only reproduces the normative assumptions about gender roles that women leaders are constrained by, but also legitimizes normative discourses on these gender roles. Runte and Mills (2004, 240) argue that women have to "navigate between parental and employee roles" and as such they have to "pay the 'toll' for crossing the boundary between work and family." By articulating this particular issue, WL2 shows how women are not only bound by patriarchal norms, but also by normative heterosexuality and hegemonic masculinity (Connell and Messerschmidt 2005). There is an acknowledgment and implicit acceptance of patriarchal beliefs of a woman's familial role and just as importantly, an unquestioning assumption of compulsory heterosexuality in this acceptance.

The Discourse of Gender Blindness I

The discourse of gender blindness is often viewed as being connected to the gender difference discourse. This discourse generally indicates that the default for power and authority is masculine (male is the normative assumption), and because it is a hegemonic belief that is taken for

granted, and there is a certain blindness that gender is embedded in the situation. This particular discourse was found to be quite prominent in the interviews. However, in an interesting subversion of this discourse, WL1 (an Associate Vice-Chancellor) claims that she forged ahead in her career pathway as leader because she was "naive" and blind to any gender expectations or perceived transgression of gender roles.

> By being completely oblivious. That comes with being naive to negative socio political environments. My focus was on the job in my first two leadership positions …I was not distracted…I just wanted to do the job (WL1)

She goes on further to explain that this gender blindness enabled her to forge new paths for herself as a leader at the university:

> So I fashioned them according to my own design. Lead auditor, deputy director of international in ICR, and now Associate VC. All didn't exist before I took them on.

The Discourse of Gender Blindness II: "It's Not Gender, It Is Personality"

As stated above, the discourse of gender blindness reveals experiences of "doing gender" and gendering practices become so normative and taken for granted that they seem natural and essentialized, so much so that the question of gender does not even arise. Connell (1987) argues that hegemonic masculinity often denies the existence of gendered patterns.

> Women who are often silent in Senate isn't because of their gender, it's mainly their personality that's shy…It depends on the person rather than the gender and the field as well (WL2)

The response from WL2 indicates that hegemonic masculinity is so pervasive that often gendered and gendering practices are not seen as such.

The Discourse of "Emotional Females"

> Women must also better themselves by learning the ability to be calm and reason instead of reacting as some women leaders tend to do. The trouble is if men react, people seem to accept, but if women react, it appears negative (WL3)

Lupton (1998) asserts that there is a default assumption that women are emotional while men are unemotional. These normative expectations of gendered behavior affect perceptions of women leaders. As leadership itself is seen to be masculine, male leaders are seen as legitimate leaders because of their "rationality" while women are seen as being too emotional to be effective leaders.[6]

Conclusion

Gender and leadership in UM are a lot more complex and problematic than monolithic interpretations of gender differences between male and female leaders. The intersections between gender, academic capital, race, politics, and leadership among other factors play important roles in the ways in which leadership is negotiated and enacted. Leadership is indeed a gendered construct alongside an academic culture which is also gendered in many ways.

The findings reveal that because women leaders are active social participants in "doing gender," the construction of professional identities, leadership, and gender is very dynamic and full of contestations and paradoxes. Women leaders often have to shift between competing subject positions in order to legitimize their leadership. Women leaders in UM are caught in a double bind whereby in some discourses, they are seen to resist normative assumptions of gender and leadership, but through other discourses they seem to conform to and perpetuate gender inequality. On the one hand, a woman leader may choose to invoke the "discourse of equal opportunities." On the other hand, however, she may be positioned by the discourse of emotionality by others, or just as significantly, she may well position herself or other women within that normative discourse where certain conceptions of gender are seen as natural and a given.

Differing contexts lead women leaders in UM to enact gender in different ways. In some contexts, women leaders emphasize their gendered social identity, while in others they de-emphasize it. The gendered discourses in circulation show the dialectical relationship between gender, leadership, and sociopolitical structures. As Sunderland argues, gendered discourses are not just a matter of production, but also what the discourses themselves *can do*. While these discourses are produced from within the context of higher education leadership practices, they also constitute those

very practices in multiple ways. While at times it may seem as if normative gender beliefs are reinforced, at other times, or indeed simultaneously, these gendered beliefs are also challenged and subverted. Indeed, the multiple articulations of these discourses indicate that these discourses are in flux and can undergo change and face contestations.

Thus, while the articulation of female leaders in UM's professional and gendered identities may show traces of gender differentiation, these differentiations are not fixed in binaries. Within the context of UM itself, gender differentiation discourses reveal that they can be open to reinterpretations and re-significations, and in turn, constitute women leaders within multiple and diverse subject positions. In that sense, it is significant here to conclude that while it is important to address the continued inequalities and discrimination that women experience across the world as a collective group, it is nevertheless just as important to investigate the differing and diverse experiences of women leaders in specific contexts as the case in UM shows.

Notes

1. Research Universities (RUs) are public universities that are acknowledged (based on a determined selection criteria) by the Malaysian Cabinet (2006) to become leading research and educational hubs in Malaysia.
2. The King Edward VII College of Medicine was founded in 1905. The College later became known as the University of Malaya in Singapore in 1949. In 1962, the University of Malaya in Singapore split into the University of Malaya and the University of Singapore (now known as the National University of Singapore).
3. All the male and female members of the senior management are from the Malay ethnic group; there is an implicit and almost natural acceptance of race-based appointments at the top levels of management in Malaysian public universities.
4. One exception to this is the Faculty of Medicine which is displays more gender balance in its management lineup.
5. According to Sunderland, "The names which the analyst from a particular standpoint provides are also interpretive" (2004, 47).
6. Connected to this is also the issue of assertiveness versus aggressiveness. Holmes (2006) argues that women leaders are seen as being too "masculine" if they are perceived to be too assertive, or conversely as "feminine" if they are too tentative.

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CHAPTER 10

Changing Landscape of the Malaysian Higher Education: An Overview of Women's Glass Ceiling

Hazri Jamil, Ahmad Firdaus Ahmad Shabudin, Santhiram R. Raman and Ooi Poh Ling

Introduction

Over the past years, the access, opportunity, and empowerment of women to the education sector have progressively improved. The Global Gender Gap Report 2017 highlights the fact that women worldwide are closing the gap in critical areas of education—on average, the 144 countries covered in *The Report* have closed more than 95% of the gap in educational attainment (World Economic Forum 2017). However, progress is still possible, notably women's participation in fields such as science,

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technology, engineering, and mathematics (STEM), and in leadership roles as well as the decision-making process, their participation remains vastly inadequate. For example, in higher education, the UNESCO report "Cracking the code: girls' and women's education in STEM 2017" indicated that only 35% of all students enrolled in STEM-related fields are female, and only 28% of all of the world's researchers in such areas are women (UNESCO 2017a). It is increasingly accepted that an unseen glass ceiling has been holding back the advancement of women to organizational leadership positions, one which has been defined as the unseen yet unbreakable barrier that keeps minorities and women from rising to the upper rungs of corporate ladders regardless of their qualifications or achievements (Cotter et al. 2001). This generalization also applies to the obstacles women face in fulfilling their aspirations to rise to top positions in the higher education sector (see Katuna 2014; Rosna et al. 2016; Redmond et al. 2017; Rehfeldt 2018).

Women play an ever-outstanding role in Malaysia's socioeconomic development and are being given every opportunity to take part in its multiple sectors. The 11th Malaysian Plan, 2016–2020, which serves as the blueprint for socioeconomic development of the country, has recognized that gender equality and enhancement of the role of women are essential elements to contribute toward overall socioeconomic development. Based on current statistics, Malaysia is ranked 9th on the empowered women in Asia Pacific scale based on the 2017 Malaysia Gender Gap Index (MGGI) released by the Department of Statistics Malaysia (DOSM) (see Department of Statistics Malaysia 2017; Majid 2017). Under the 11th Malaysian Plan, the government targets an increased participation rate of women in the workforce to 59% by the year 2020, in line with the historical increase from 46.8% (2010) to 49.5% (2012) and rising to 54.5% (2016) (Beng Ee 2018). The Prime Minister of Malaysia declared 2018 as the Women Empowerment Year and highlighted the

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fact that government-linked companies, government-linked investment companies, and statutory bodies would be compelled to allocate 30% of positions on their boards of directors to women by the end of 2018 (Koh 2017).

In the context of education, Malaysia continues to record progress in closing the gap with the ranking of 77 among all nations (World Economic Forum 2017). In particular, the Malaysia Higher Education Blueprint 2015–2025 (preschool to post-secondary education) and the Malaysia Higher Education Blueprint 2015–2025 (higher education) serve as catalysts to reduce the gender gap, and empower women in Malaysian education sectors. During the Ministry's International Women's Day 2018, the Minister of Higher Education announced that the number of female students had grown to 62% of overall enrollment at institutions of higher learning, 48.1% at polytechnics, and 41.7% at community colleges, and he added that 49.4% of female graduates at the end of 2017 have their own businesses—generating income and job opportunities for others (Sani 2018).

Although Malaysia is making extensive progress in achieving gender equality and women empowerment in the higher education (HE) sector, significant progress is yet to be made in governance and management structures of higher education institutions (HEIs). Despite the fact that the situation has changed radically in the last decades regarding participation rates in education, gender differences persist in both attainment and choice of courses of study. Hence, there is a need to examine to what extent and in what ways gender equality and women's empowerment in the HE system is an issue of concern in Malaysia. This chapter attempts to provide a mapping of the strategies in place across the Malaysian HE ecosystem to tackle gender inequalities, and women's empowerment in HE systems today. The chapter is organized to first touch on the well-established, extensive literature on the status of women's access in Malaysian HE, followed by women's education, and involvement in STEM, and academic women's orientation to academic positions and leadership. In effect the chapter provides as an update on the status of women in Malaysian HE, in terms of equality of access, STEM, and leadership positions. The authors believe this chapter will provide a better understanding of the efforts, and initiatives of Malaysia as a developing nation in ensuring gender equality and empowering the roles of women to support the nation's socioeconomic progress toward developed nation status, as well as a knowledge economy. It is hoped

that this chapter will open a dialogue among policy makers and academics to focus more attention on the issue of women in STEM, and leadership positions in the Malaysian HE system.

Access and Gender Disparity

Malaysian HE has undergone rapid expansion since independence in 1957. Independence triggered a number of broad social changes, one of which involved both overall access to education and HE in specific areas and an emphasis on closing the gap on gender disparity. As a developing nation, Malaysia shows significant progress in ensuring women's access and opportunities in HE. Over the past decades, females now outnumber males in HEIs and in most fields of study. Wan (2017) highlights the rising percentage trend of female enrollment in Malaysian HEIs since the 1970s. By the late-1990s, percentages of female and male students were equal, with female enrollment beginning to overtake male enrollment in percentage terms. The study by Tienxhi (2017) has found that 13 out of 20 of Malaysian public universities fall under UNESCO's classification of "far from gender parity" (with a GPI higher than 1.5). UNESCO indicates that a GPI score between 0.97 and 1.03 indicates that gender parity has been achieved, while a score greater than 1.25 or less than 0.8 indicates that an entity is "far from" achieving gender parity (Rajaendram 2016). This phenomenon exists in many parts of the world leading to the prediction of the Organization for Economic Co-operation and Development (OECD) that, "the inequalities to the detriment of men would be well entrenched at the aggregate level in 2025, with some 1.4 female students for every male. In some countries (Austria, Canada, Iceland, Norway, the United Kingdom) there could be almost twice as many female students as male" (ICEF Monitor 2014).

Recent statistics indicate that the number of women enrolled in Malaysian HE is increasing. Table 10.1 shows the number of students enrolled in Malaysian public HEIs from 2012 to 2016, by gender. Data indicate that in 2016, 399,240 female students enrolled in public HEIs in Malaysia, compared to 268,250 male students. For instance, the recent report, Higher Education Statistics (2016) (see Fig. 10.1), indicates a ratio of females enrolled in Malaysian public and private HEIs of 55.8% compared to males with only 44.2% (see Table 10.1). Female students have surpassed males in all three categories (intake, enrollment, and output) of higher education.

Table 10.1 Total male and female intake, enrollment, and output in Malaysian public and private HEIs (public university, private HEI, polytechnic and community college), 2016

	Intake		*Enrollment*		*Output*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*
Phd	3958	3232	21,006	39,494	2328	4003
Master	14,726	16,987	40,133	55,744	9336	14,192
Postgraduate diploma	147	329	515	823	254	471
Bachelor	76,079	107,944	292,135	404,764	70,010	122,414
Advance diploma	279	344	1024	910	337	415
Diploma	86,608	77,839	207,415	208,946	48,666	65,051
Total	**181,797**	**206,675**	**562,228**	**710,681**	**130,931**	**206,546**
Percentage (%)	**46.8**	**53.2**	**44.2**	**55.8**	**38.8**	**61.2**

Source Ministry of Higher Education Statistics (2016)

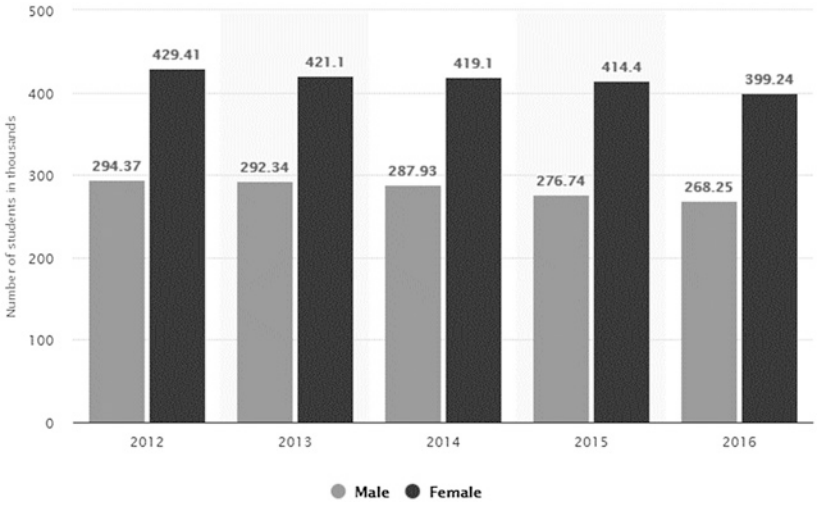

Fig. 10.1 Number of students enrolled in Malaysian public HEIs from 2012 to 2016, by gender (in 1000) (*Source* The Statistics Portal, n.d.)

These statistics show a definite trend in gender transition, in which the overall number of females is increasing in Malaysian HE and with a higher graduation rate compared with that of males. Furthermore, the current study by Wan (2017) highlights the fact that the overrepresentation of female students is found not only in public universities, and at all levels of study except the doctorate in public and private universities but for all Bachelor's degrees in private universities. Researchers have found that a number of factors contribute to this gender disparity in HE. In general, the OECD report lists a number of hypotheses why females are outpacing males in HE participation: (1) female's new ability to combine studies and work with family life, in many places; (2) decreasing discrimination against females in families (again, in many places); (3) females' better preparation for HE, as evidenced by their test scores in secondary education; (4) females' higher aspirations to obtain tertiary degrees; and (5) the feminization of the teaching profession and a learning environment more conducive to females' social and cognitive dispositions (ICEF Monitor 2014). In the Malaysia context, Tienxhi (2017) highlights the four main causes of gender disparity in Malaysian public universities as: (1) males are concentrated at polytechnics and community colleges; (2) females have higher returns for university education than males; (3) females perform better in secondary school education; and (4) more males are in overseas universities. In addition, Wan (2017) has stated that the gender disparity trend in Malaysia HE underlines two areas of concern—(1) an overly emphasized admission into academic streams for transition from schools into HE and (2) the differentiated households willingness to spend on HE for their daughters, and sons.

While Malaysia can be proud of the fact that the gender gap exists in favor of women in Malaysian HEIs, present statistics that show a reverse gender gap especially in its public universities raises other concerns, especially in the context of socioeconomic instability. The gradual decrease of males' involvement in HEIs has led to a massive overrepresentation of females, which is bound to have significant effects on society over the coming generation (Hunter 2015). The study by Becker (2014) regarding the reversal of gender differences in educational attainment highlights the fact that the superior performance of females compared with males in HE might have been initialized by various social changes, including (1) the public employment expansion; (2) the increasing demand for highly qualified women workers in welfare and service areas; (3) the growing returns represented by women's increased education

and training; and (4) the improved chances for combining family and work outside the home. Some recommendations have come forth to overcome the reality of gender disparity at Malaysian HEIs. For example, Ismail (2015) highlights four approaches, including: (1) a need to establish a balanced quota for female and male students for entry to university; (2) the ministry should set up motivational programs to induce male students to pursue higher education and thereby arrest their lag in educational attainment; (3) a university intake policy that gives priority and flexibility to male students; and (4) a university entry requirement that is not based entirely on merit of academic results, and gives more consideration to leadership abilities, and the cocurricular activities of students.

In sum, the widening gender gap, and specifically the disparity of males to females, is not only about equity and access to HE, but more critically, if left neglected would have vast economic and social implications. Something needs to be done to ensure a relatively equal ratio of males and females participating in higher education in a way that does not result in a consequent discrimination to women. Much more study needs to be conducted to uncover the causes and implications of this phenomenon in order to produce informed recommendations for policy makers on how to reduce or mitigate the gender parity at Malaysian HEIs.

Science, Technology, Engineering, and Mathematics (STEM)

STEM is one of the catalysts for transforming Malaysia to a developed nation status by 2020 by the development of STEM-related resources, infrastructure, and talents as necessary elements in this endeavor. The government has also acknowledged that the involvement of women in STEM-related fields is critical in realizing this goal. Multiple policies ranging from education, to economic elements, to welfare and human resources have been generated to accelerate this progress. These policies have resulted, in among others, an increase in women researchers from 35.8% in 2004 to 49.9% in 2012 as well as more women's participation in selected STEM courses at the tertiary level (Ng 2016). UNESCO (2016) reported that the Malaysian aspiration of a gender-balanced STEM education encompasses (1) adaptation of gender inclusive pedagogies, quality assurance with regard to the curriculum development process, inter-sectoral policy development, and implementation across Ministries and (2) capitalization of girls-only and coeducation schools

as well as establishment of female role models. This section highlights the progress of Malaysia to empower women's participation in STEM in HE including (1) female student enrollment and (2) women in STEM research careers.

Malaysia's progress in achieving gender parity for women in STEM fields, and empowering them in STEM, is on the right track. According to the report, "A Complex Formula: Girls and Women in Science, Technology, Engineering, and Mathematics in Asia," Malaysia is in the process of becoming a regional beacon of hope regarding female's attempts to reach parity in the STEM professions. The report notes that, in 2014, 31.6% of graduate engineers were women, and areas where females were highly represented include pharmacy (72.9%), dentistry (63.5%), medicine (46.7%), and veterinary medicine (41.4%) (Kigotho 2015). However, the report also highlighted the fact that the trend has not increased the overall participation of women in most STEM fields of study, including physics and engineering. Figure 10.2 shows the enrollment in traditional STEM programs for 2016; females have overtaken males in every program with the exception of engineering, manufacturing, and construction.

With regard to engineering, manufacturing, and construction, Malaysia has attained an impressive degree of gender parity with women comprising almost 40% of enrollment. Tienxhi (2017) highlights the fact that: (1) in the USA, female engineering undergraduates comprise a mere 17% of the student population; (2) in Canada, the University of Toronto recently celebrated the fact that their engineering courses had 30% female enrollment, higher than any other university in Ontario;

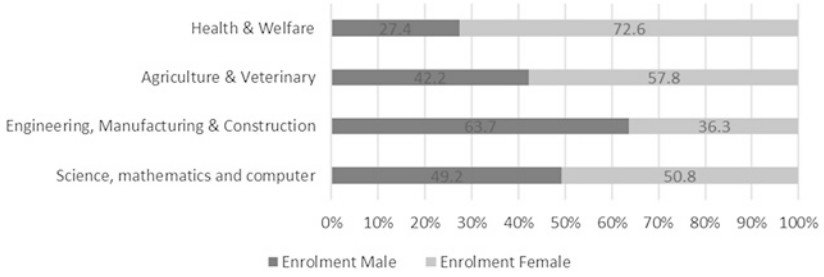

Fig. 10.2 Percentage of STEM enrollment in Malaysian HEIs for 2016 (the current data available) (*Source* Ministry of Higher Education Statistics 2016)

and (3) closer to home in the Republic of Korea, 19.5% of engineering undergraduates were female in 2011. In the context of careers, the percentage of women in engineering in Muslim countries (such as Jordan, Malaysia, Saudi Arabia, and Tunisia) is reportedly as high as 50%, which is substantially higher than the global average (see Heschmeyer 2016; Hoxha 2016). Peramayah (2012) indicates that the number of women engineers registered with The Institution of Engineers, Malaysia (IEM) and the Board of Engineers Malaysia has shown a significant increase over the past two decades, with the trend largely due to the equal chances in education for male and female whereby the enrollment of female students in engineering studies has risen from merely 5% (1981) to 30% (1999) and more recently about 50% (2010). A number of factors seem to affect females' choice in pursuing their study in engineering programs and careers in Malaysia, with the most important factor being their individual interest and the influence of family, teachers, and friends (Abu-Lail et al. 2012).

The low participation of women in engineering, manufacturing, and construction programs in HE is a global phenomenon (see UNESCO Science Report: Towards 2030; Eröcal 2015). Several factors influence this low participation, for example, *Women in Engineering: Realizing Productivity & Innovation through Diversity*, found almost half (47%) of all women had experienced discrimination because of their gender, and the pay gap (Professionals Australia Gender and Diversity 2017). In addition, other factors that may explain the small numbers of women in Engineering include: (1) male-dominated disciplines; (2) a lack of inspiring role models; (3) situations in which women are an insignificant minority with little or no societal, or institutional support (including a lack of appropriate infrastructure, design of products, facilities; a lack of organizational flexibility (location, time); a lack of involvement in decision-making processes, and funding opportunities); and (4) dull and dreary professional images prevalent in society (Goel 2007). To ensure an equilibrium ratio in engineering education, Perez-Artieda et al. (2014) have proposed some straightforward actions that could attract more women to engineering studies which include "humanizing" engineering, creating an attractive career image for women engineers, deconstructing the misconception of engineering as a male profession, broadening the currently available information concerning matters of interest to prospective students, and broadening the available information concerning the social conception of engineering.

The involvement of more women researchers in STEM can help boost the nation's progress toward a knowledge economy as well as a scientific and progressive society. In general, women still account for a minority of the world's researchers especially in STEM fields. The factsheet of *Women in Science 2017* highlights the regional averages for the share of female researchers for 2014 as follows; 28.8% World, 39.9% Arab States, 39.6% Central and Eastern Europe, 47.2% Central Asia, 22.9% East Asia and the Pacific, 44.7% Latin America and the Caribbean, 32.2% North America and Western Europe, 19.0% South and West Asia, and 30.4% Sub-Saharan Africa (UNESCO 2017b). Malaysia is one of the developing nations that displays a significant contribution in empowering women researchers. The result of UNESCO surveys since 2004 (see Table 10.2) indicates a detailed trend analysis on Malaysian performance of women's careers in research and development (R&D) within three major sectors—business enterprise, government, and higher education.

As indicated in Table 10.2, the percentage of women researchers vis-a-vis men has increased gradually over time. On average, from 2011 to 2015, the proportion of women researchers in HE is slightly more than half of researchers. The report on "Gender in the Global Research Landscape" concludes that based on Scopus records from 2011 to 2015 women account for 38–49% of researchers in 11 of the 12 countries and regions studied. These trends generally align with those from a 2015 UNESCO Science Report *Towards 2030* (although the proportions of women researchers reported in that publication—which used data from 2013—are on average about 6% points lower) (Bernstein 2017). According to Bernstein (2017), the report indicated that: (1) Portugal and Brazil have the largest proportion of female researchers at 49%; (2) Denmark saw the greatest change over time, with a 12% increase when compared with data from 1996 to 2000; (3) the countries with the smallest proportions of female researchers—Chile (38%), Mexico (38%), and Japan (an outlier at 20%)—also showed the least improvement over time, with increases of just 4–5% points; and (4) Canada, the UK, the USA, France, Denmark, the European Union, and Australia—all have proportions of female researchers ranging from 40 to 44%.

In the STEM context, Table 10.2 also indicates that nearly half of women researchers are in the natural sciences, engineering, and technology, and more than half are in medical/health sciences, agriculture, and veterinary sciences. The improvement of gender imbalance in STEM provides more diversity in terms of developing an overall perspective

Table 10.2 Women researchers in Malaysia, (%)

Year	*Female researcher (%)*	*Sectors*			*STEM-related field*			
		Business enterprise (%)	*Government (%)*	*Higher education (%)*	*Natural sciences (%)*	*Engineering and technology (%)*	*Medical and health sciences (%)*	*Agricultural and veterinary sciences (%)*
2004	35.8	25.5	38.4	39.8	–	–	–	–
2006	37.7	27.5	42.0	40.2	44.5	28.0	51.6	40.1
2008	40.9	29.9	44.8	42.0	41.8	34.7	53.4	44.2
2009	50.9	31.2	52.5	52.4	51.9	49.5	55.9	48.2
2010	48.8	31.3	51.6	50.4	51.0	45.7	51.0	49.2
2011	48.7	30.5	52.4	50.3	51.0	45.4	50.7	49.8
2012	49.9	30.8	53.4	51.5	49.0	49.8	50.8	48.9
2014	48.8	31.0	47.5	50.5	–	–	–	–
2015	48.6	33.7	55.6	50.0	47.8	47.2	50.3	50.5

Source UNESCO (n.d.)

and approach in R&D activities in Malaysia. The Malaysian government has implemented various policies through the years, which integrated Science, Technology, and Innovation (STI), education, and human resources in order to accelerate the number of STEM women researchers. As a result of this initiative, Malaysia has produced a talent pool of women scientists, which is capable of impressing the international scientific community, and gaining recognition at the global level. Examples include: Mazlan Othman (first Malaysian astrophysicist and the former Director of the United Nations Office for Outer Space Affairs); Chern Ein Oon (recipient of the Women of the Future Award South East Asia in the Science, Technology, and Digital category); Asma Ismail (who served as the World Health Ogranization's [WHO] temporary Advisor for vaccine and diarrheal diseases); Siti Kartom Kamarudin (one of 14 National Researchers recognized as recipients of the Malaysia's Rising Star Award for obtaining the top 1% of the Highly Cited Papers published worldwide); Hafizah Noor Isa (among the worldwide group of scientists who made the frontier-changing confirmation of Einstein's gravitational waves theory); Nur Adlyka Ainul Annuar (among those astronomers who discovered a hidden supermassive black hole in the galaxy); Wan Wardatul Amani Wan Salim (the first Malaysian ever to launch a NASA satellite to space, and Thora Halstead recipient of a "Young Investigator" award for contributions to gravitational and space research).

Malaysia appears to be on the right track to increase female students' enrollment and develop women researchers in STEM fields but, nonetheless, there is still room for improvement in closing the gender gap in HE. In particular, Malaysia is currently facing the dilemma of a serious shortage of human capital in STEM fields as the target for enrolling students in the stream is not being met annually at the school and HE levels (see Nasa and Anwar 2016; Sani 2018). The county faces a target of achieving a 60:40 ratio of science-stream students to non-science students as Malaysia looks toward achieving a STEM-driven economy by the year 2050. The inability to meet this target is seen as a weak link that will slow down Malaysia's efforts to close the gender gap and women's empowerment in STEM. Malaysia needs to examine global trends and current efforts by other countries, and transform the current approach to STEM education to ensure that levels of participation in STEM at the tertiary level can be sustained going forward.

Academic Career and Leadership

Women academics or educators constitute a proportionately privileged group that has made significant progress in terms of representation and career success in HE. However, there is an increasing focus on gender inequality in HE academic positions and the fact of underrepresentation of women in senior academic and management positions internationally (see German Academic Exchange Services 2007; Shepherd 2017; Redmond et al. 2017; Morley and Crossouard 2015). This section presents an overview of gender disparity in academic positions as well as senior and leadership positions in Malaysian HE.

The latest update on the status of women academics in Malaysian HEIs offers some good news. The percentage of women academics in these institutions compared with men academics shows a growing number over time. Figure 10.3 indicates that women comprise 54.3% of the academic labor market in Malaysia; these data indicate the number of women academics from both private and public HEIs (e.g., university, university college, college, polytechnic, and community college), and their job scope ranging from teaching to research.

In the context of senior positions, Fig. 10.4 indicates the gender distribution of academic staff at professor and associate professor levels in public universities (2015–2016). Despite the uneven ratio of women

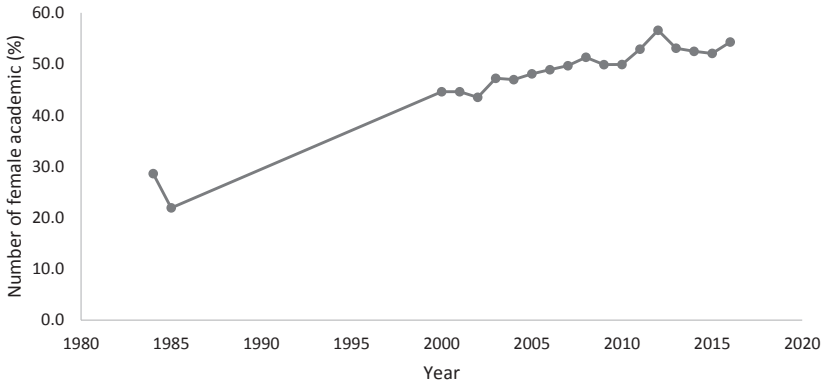

Fig. 10.3 Tertiary education, academic staff (% female) (*Source* UNESCO, n.d.; Ministry of Higher Education Statistic 2016)

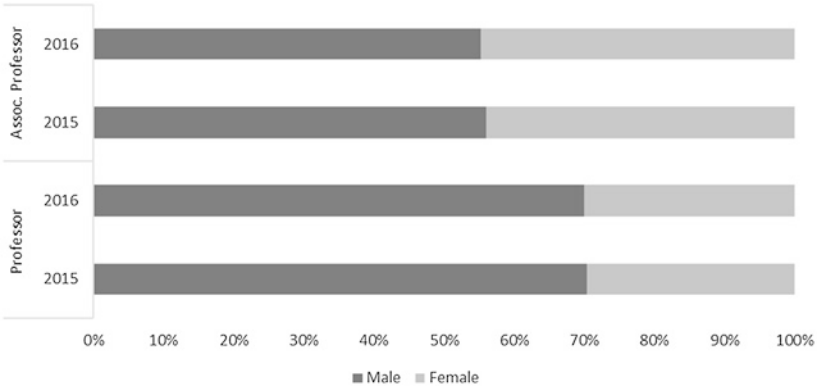

Fig. 10.4 Gender distribution of senior positions (professor and associate professor) in Malaysia public universities (*Source* Ministry of Higher Education Statistic 2016)

professors compared to men (70:30), there has been an increase in the percentage of woman professors during the last decade. The data indicate an upward trend in the absolute number of woman professors at the 17 public universities from 9.6% (1997) to 16.9% (2000), and 22.1% (2004) (Ismail and Rasdi 2006). The number of women professors in Malaysian public universities is still small when compared to men. In the early days of Malaysian universities, very few women entered HE as academic staff, and hence, initially, very few were qualified simply in terms of service, to become professors. However, over the years the environment has changed with an increasing number of women entering the academic world to a point that the number of women associate professors constituting the academic staff population is nearly half (45%). While a trend toward gender parity among women academics has been noted in many countries, this move toward parity declines sharply when considering overall seniority. The Catalyst Web site indicates that: (1) in 2016, Australian women academics held just 37.7% of those positions at the senior lectureship levels; (2) in 2013, women were a minority among senior academics (grade A) in many European countries—for example, Belgium 15.6%, Germany 17.3%, Sweden 23.8%; (3) Indian women held 24.8% of professor and equivalent faculty positions, and 34.8% of reader/associate professors (2015–2016); and (4) in the USA, women

constituted near parity (44.9%) among associate professors but less than a third (32.4%) at the professor rank in 2015 (Catalyst, Quick Take 2017).

There have been continuous calls for women leaders to occupy increased leadership positions within both the public and private sectors. HEI leaders play a crucial role in the development of such institutions, nonetheless, far more men than women are represented in leadership and key decision-making positions (e.g., vice-chancellor, deputy vice-chancellor, deans, directors, and heads of departments). According to Burkinshaw (2015), women's representation in such leading positions is considered significant for four major reasons including: (1) a social justice norm that advocates institutions to be just and treat people with equality; (2) parity and equity values that focus on the issue of the gender opportunity gap, and relative pay equality; (3) enhancing overall leadership quality that can be facilitated by diverse practices; and (4) business and economy norms, as organizations with demonstrations of equality and inclusion are looked upon and perceived in a positive light. In Malaysia, the government is continuously providing support for increasing the numbers of women involved in higher level positions, which is seen as a success in the effort to develop gender equality and women's empowerment. Malaysian development policy documents, such as the 10th Malaysia Plan, had a target of 30% women taking on decision-making roles, and the target was extended to 2020 in the 11th Malaysia Plan (2016–2020). Malaysia is currently on the right track to achieve this target with recent reports indicating that the actual achievement stood at 35.8% at the public sector's decision-making level, and 29.9% in the corporate sector (*The Sun Daily* 2017).

In view of the significant progress that women have made in gaining access to Malaysian HE over the past several decades, in time such progress could also generate an increase in the number of academic managers. Already, within the 20 Malaysian public universities, women hold 19% of the top management posts of deputy vice-chancellor, bursar, and registrar, but currently only four vice-chancellor positions. In addition, 31.3% or 73 out of 233 of all Faculty Deans are women. There is also an increasing number of women appointed as University Board Members. At the ministerial level, the current Deputy Minister, the Secretary-General, and the new Director-General of the Higher Education Department are also women (*Daily Express* 2017). Faizli (2017) also has reported that there are 11,931 women lecturers of the total 21,077

in Malaysian public universities (56.6%), and 13 of 68 appointed as deputy vice-chancellors (19.12%), and four of 20 are appointed as vice-chancellors (20%).

The overall result is that although Malaysia has exceeded gender parity in access and participation in HE, this has yet to lead to proportional representation in the access to leadership and decision-making positions. Almaki et al. (2016) highlight three broad challenges facing Muslim women leaders in Malaysia including: (1) social and religious attitudes—gender-role stereotypes, the negative view of women as leaders, the consequence of family upbringing and background, a lack of confidence from others, and a lack of freedom; (2) organizational challenges including managing different workplace personalities, work overload, lack of leadership experiences, and internal conflicts; and (3) personnel challenges that include balancing work and family responsibilities (prioritization, supportive family, and readiness to change). Malaysia needs to develop initiatives and strategies that can potentially advance women leadership in HE, such as through capacity building, mentoring, and coaching women as well as establishing supportive networks.

Articulating women to senior and managerial positions in HE remains a central issue for most countries. Although Malaysia has not yet succeeded in fully demonstrating a strong proportion of gender equality in this regard, it is important to look at the whole picture and realize that there has been a slow but increasing participation of women in HE leadership roles. Gender equity in top HE positions in general seems to be hard to achieve, because of the number and range of difficulties women face both personally and professionally. It remains, nevertheless, important to seek initiatives and policies at the institutional level that will empower women leaders, and enable them to accept these challenges. In decades to come, there could well be a closing of gap in the leadership positions occupied by women in Malaysia in the HE sector.

Conclusion

The United Nations 2030 Agenda for Sustainable Development 2015–2035 (also known as Sustainable Development Goals [SDGs]) is now framing global development discourses on providing equal access and opportunity as well as empowering women across the HE landscape. The targets for the designed Goal 5 to "Achieve gender equality and empower all women and girls" cannot be accomplished without

focused attention to gender equality within the education system. With the Target 5.5 directed to achieving women's full and effective participation and leadership at all levels of decision-making, the SDGs offer the chance to change this. On the other hand, the Incheon Declaration and Framework for Action and Sustainable Development Goal 4 of Education 2030 also highlights the action plan for an agenda for girls and women to achieve the right to education for all. With stepped-up actions on gender equality and women's empowerment, Malaysia can make significant progress and implement the initiatives or programs, which will see the gender equality in enrollment and STEM participation among girls and women as well as greater leadership roles in higher education sectors.

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CHAPTER 11

The Beginning of the End? Changes in Junior Colleges in Japanese Female Higher Education

Shangbo Li

Introduction

Junior colleges in Japan have been playing an important role in Japanese female higher education (HE) for more than 60 years. The junior college system was implemented as part of the Japanese educational system following World War II.

In Japan, higher education basically has three functions: a status-achieving function, a status-shaping function, and a status-demonstrating function (Li 2006). It can be said that the first function was primarily for men, and the other functions were primarily for women until the 1990s. Junior colleges have played a pivotal role for the second and the third functions (Li 2006).

As is commonly known, the Meiji government developed the concept of "good wife, wise mother," with regard to women. From the

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Meiji (1868–1912) into the Taisho period (1912–1926), a good education was a precondition to marriage for women in middle—to upper-class families, based on this framing of "good wife, wise mother," an idea that gradually became the accepted social norm in the Showa period (1926–1989). Primarily for this reason, a college education has served a different function for women than it has for men. In the Heisei period (1989–present), many changes in social returns are taking place in Japanese higher education and these are significantly affecting female higher education.

This chapter, therefore, focuses on the general question of: what factors have changed at the college, legal, social, and personals levels in the Heisei Period in Japanese female higher education? It will explore the future of junior colleges in Japan, in order to answer the question: "will junior colleges in Japan begin to disappear in the twenty-first century?" Sources used include Japanese government documents, the data of Japanese junior colleges, and the results of previous research.

Junior Colleges in Japan

As noted above, the junior college system was implemented as part of the Japanese educational system following World War II. As a relief measure, the government provisionally created a system of junior colleges (*Tandai*) to provide more higher education for schools whose level was inadequate for promotion to a four-year undergraduate institution.

According to the School Education Law enacted in 1947, the purpose of junior colleges is to develop the necessary abilities for a career or practical life such as home economics and English, pathways which are quite different from the missions of the four-year university—education, research, and social contribution (Ministry of Education, Culture, Sports, Science, and Technology [MEXT] 2012).

Junior colleges were first established in 1950, with an initial census of 149. They were repositioned as a type of university system in 1964. As shown in Table 11.1, until 1996 the number had been steadily increasing for nearly half a century. Especially from the mid-1970s to the mid-1990s, the number of junior colleges continued to grow, peaking at 598 in 1996. For the next 20 years, the number of junior colleges were in decline. Two important features have distinguished junior colleges: The proportion of female students has been very high and throughout their history, most junior colleges have been private institutions. Within this

Table 11.1 Numbers of junior colleges

	Total	*National*	*Local public*	*Private*	*Percentage of private*
1955	264	17	43	204	77.3
1960	280	27	39	214	76.4
1965	369	28	40	301	81.6
1970	479	22	43	414	86.4
1975	513	31	48	434	84.6
1980	517	35	50	432	83.6
1985	543	37	51	455	83.8
1990	593	41	54	498	84.0
1995	596	36	60	500	83.9
2000	572	20	55	497	86.9
2005	488	10	42	436	89.3
2010	395	–	26	369	93.4
2011	387	–	24	363	93.8
2012	372	–	22	350	94.1
2013	359	–	19	340	94.7
2014	352	–	18	334	94.9
2015	346	–	18	328	94.8
2016	341	–	17	324	95.0

Source Ministry of Education, Culture, Sports, Science, and Technology [MEXT], Statistical Abstract of Education, Science, and Culture

broad frame, it is useful to examine this history a bit more closely over the past 70 years.

As indicated above, Japan Junior Colleges are generally regarded as women's schools. In 1955, male junior college enrollment accounted for 46.2% of the total. This was followed by a downward trend with the percentage dropping to 14.4% 20 years later in 1974. After that, the percentage of men in junior colleges has stabilized at around 10% of the total number of students. As shown in Table 11.2, even today in the twenty-first-century female students still account for about 80% of total junior college students. It is largely this fact that underscores the commonly held view that junior colleges have made important contributions to higher education for women in Japan for more than 60 years. The overall legitimization of junior colleges was underscored by the government's establishment of a foundation degree (*Jun Gakushi*) system[1] for junior colleges within the overall revision of the School Education Law in 1991, and further with an associate degree (*Tanki Daigakushi*)[2] for junior college graduates in 2005 with a subsequent revision of the School

Table 11.2 The number of university students and junior college students and the share of female students (2001–2016)

	The number of university students (person)				*The number of junior college students (person)*			
Year	*Total*	*Male*	*Female*	*Share of female students*	*Total*	*Male*	*Female*	*Share of female students*
2002	2,786,032	1,726,088	1,059,944	38.0	267,086	30,057	237,029	88.7
2003	2,803,980	1,716,549	1,087,431	38.8	250,062	29,972	220,090	88.0
2004	2,809,295	1,708,456	1,100,839	39.2	233,754	29,291	204,463	87.5
2005	2,865,051	1,740,151	1,124,900	39.3	219,355	28,224	191,131	87.1
2006	2,859,212	1,731,738	1,127,474	39.4	202,254	25,092	177,162	87.6
2007	2,828,708	1,701,957	1,126,751	39.8	186,667	21,757	164,910	88.3
2008	2,836,127	1,695,372	1,140,755	40.2	172,726	19,208	153,518	88.9
2009	2,845,908	1,687,518	1,158,390	40.7	160,976	17,478	143,498	89.1
2010	2,887,414	1,701,834	1,185,580	41.1	155,273	17,482	137,791	88.7
2011	2,893,489	1,693,307	1,200,182	41.5	150,007	17,372	132,635	88.4
2012	2,876,134	1,670,000	1,206,134	41.9	141,970	16,501	125,469	88.4
2013	2,868,872	1,652,860	1,216,012	42.4	138,260	16,084	122,176	88.4
2014	2,855,529	1,635,438	1,220,091	42.7	136,534	15,812	120,722	88.4
2015	2,859,869	1,628,290	1,231,579	43.1	132,681	15,222	117,459	88.5
2016	2,873,624	1,625,898	1,247,726	43.4	128,460	14,485	113,975	88.7%

Sources Gakkou Kihon Chousa Sokuhou (Flash Report on School Basic Survey), every year; Ministry of Education, Culture, Sports, Science, and Technology [MEXT], "School Basic Survey Bulletin in FY2005." http://www.mext.go.jp/b_menu/toukei/001/04073001/index.htm; "School Basic Survey - FY2010 (Final Value) Summary of Results." http://www.mext.go.jp/b_menu/toukei/chousa01/kihon/kekka/k_detail/1300352.htm, and "On the Announcement of the School Basic Survey Bulletin in FY2016." http://www.mext.go.jp/b_menu/houdou/28/08/1375041.htm

Education Law. Overall, the number of junior colleges and their students peaked from 1993 to 1996 and has since then declined continuously (Tables 11.1, 11.2).[3] Further restructuring of the overall system was accomplished when the government abolished all national junior colleges in 2010. By 2016, 17 local public junior colleges remained, along with 324 private junior colleges throughout the country.

"Good Wife, Wise Mother" in the Meiji (1868–1912) and Taisho (1912–1926) Periods

The Meiji government's support for the concept of "good wife, wise mother" continues to exist in stark contrast to more contemporary notions of women's potential within careers external to the home. A good wife was "a woman who supports her husband's social activities and does not express any concerns about the future" (Kindaichi et al. 1979, 1170; Li 2006, 58), and a good mother was "a mother who strictly disciplines her children when they are young so that they will grow into fine, respectable adults" (Kindaichi et al. 1979, 344; Li 2006, 58). From the Meiji (1868–1912) into the Taisho (1912–1926) period, a good education was a precondition to marriage for women in middle- to upper-class families, based on the concept of "good wife, wise mother." This idea gradually became the accepted social norm in the Showa period (1926–1989).

For these reasons, a college education has served a different function for women than for men. Men predominantly use their college education, which is a signal of their capabilities, to achieve status within a company. As such, a college education tends to be an essential ingredient for men to achieve a certain level of status. What is different is that some women use their college education to marry into a social status higher than their own, and by thus marrying a husband with a high income (including his household assets), are able to enjoy a life without work. For these college-educated women, the women's sphere is the home, and they have authority that is independent of the male-centered corporation; that is, they are "all-powerful" when it comes to holding the family's purse strings and raising their children.

In the process of acquiring this kind of authority, the title of "college graduate" serves not only a status-shaping function, whereby women trade their time and financial resources for marriage into a higher social

status, but also, during times when rates of advancement to higher education was low, it also served a status-demonstrating function, indicating the symbolic value of the social group to which the woman belongs. The social returns on the effects of higher education have been completely different for men and women. A junior college education requires only two to three years and can achieve all of these results, and consequently, it was more popular among women than the university-framed choice during these periods.

The Changes in Heisei Period (1989–Present)

In the Heisei period (1989–present), many changes to social returns are taking place in Japanese higher education and within female higher education (Li 2006). First, by 1996, women's advancement rate to universities, for the first time, exceeded that to junior colleges. Second, as of 1997, families with a nontraditional division of labor in which the man worked intermittently while the woman worked continuously did not function to the disadvantage of a couple in terms of their overall lifetime income. The economic advantages offered by a gender-based division of labor envisioned in the notion that "men have jobs and women do housework (and have jobs)" is being eroded. Third, from 1987 to 2002, the identity of working women changed substantially. Full-time workers tended to have a higher education and to engage long terms of continuous employment. This suggests the growing probability that highly skilled women who are likely to be able to earn a higher income will engage in full-time employment. Finally, the effects of the Act to Promote the Welfare of Female Workers by Providing for Equality of Opportunity and Treatment in Employment (hereafter, the "Equal Opportunity Act") (1986) and its revision (1999) have had tremendous impact on the development of junior colleges.

In 1999, over 80% of junior colleges in Japan could not meet their student quotas because of a shortage of applicants. In fact, a primary reason is that the Equal Opportunity Act only guarantees female university graduates the opportunity to engage in core business tasks equal to men. Junior college graduates have thus been marginalized from the core labor force (Li 2006, 75). Beginning in this same period, the reputation of junior colleges also began to decline. In this social context, junior colleges themselves have been in a state of adjustment. From 1991 to 2010, a total of 187 junior colleges disappeared from the list of Japanese junior colleges. According to Kita's findings (Kita 2012), 161 of them were upgraded to four-year universities or became part of a

four-year university; 26 of them (13.9% of the total) were closed. These junior colleges could not recruit enough students, leading to operational difficulties. Kita (2012) and Yamazaki (1989) have also pointed our that even if universities and junior colleges are dissatisfied with students and have encountered great difficulties, they typically do not cease operations immediately and complete corporate dissolution is surprisingly rare (Yamazaki 1989; Kita 2012).

Given this background, it is not surprising that junior colleges have been in a constant state of flux. Not only did the government shut down the national junior colleges, but private junior colleges, which accounted for more than 80% of the total of junior colleges, were also changing. A major change in the share of professional disciplines was also taking place (Kita 2012). In 1991, humanities, domestic science, and education accounted for 23, 22, and 21% of private junior college majors, respectively. These three together accounted for 66% of the total number of private junior college professional disciplines. In 2010, the top three majors were education (32%), home economics (21%), and humanities (11%), which accounted for 64% of the total number of private junior college majors. Traditionally, home economics is an exclusively female field; compared with humanities, education is more advantageous to the employment of female graduates in Japan. These figures reflect the changes in female students' consciousness as employment after graduation has become the common expectation for college female students in Japanese society (Li 2006).

However, as Tables 11.1 and 11.2 show, the overall enrollment and the number of junior colleges continue to decline, although many junior colleges have made adjustments to the extent possible. Aoyama Gakuin Women's Junior College is a typical example. It was founded in 1950 and peaked in size in 1990, enrolling 8535 students in six majors (*gakka*). It was reduced to two majors (*gakka*) in 2012 and enrolled only 1930 students in 2005. Aoyama Gakuin Women's Junior College announced on July 24, 2017, that it had decided to cease enrolling students in 2019. The sharp drop in the population of 18 year olds in Japan, and the fact that more girls are willing to go to four-year universities have led to fewer applicants (Asahi Shinbun Digital 2017).

In sum, with the changes in female students' consciousness and society in general, the importance of junior colleges for women's higher education is inevitably declining, although colleges continue constantly to try and adapt by reinventing themselves.

Conclusion: Will the Junior Colleges in Japan Start to Disappear in the Twenty-First Century?

According to MEXTs Report on School Basic Survey (*Gakkou Kihon Chousa*), there were 430,837 four-year university students and 357,901 junior college students in 1986, the latter being 83.1% of the former. By 1996, there were 804,854 university students and 429,290 junior college students, 53.3% of the total. Furthermore, Table 11.2 shows that in 2002, the ratio of junior college female students to four-year university female students was about 88% and the equivalent ratio for males about 1.7%. After that, both figures dropped gradually, and by 2016 were 9.1% and 0.89%, respectively, although the number of junior colleges had peaked in 1996 at a total of 598. These numbers also reflect the changing preference female college students to choose to attend a four-year university.

Table 11.3 is the composition by discipline of four-year university and junior college students in 2001. The top four majors in junior colleges were home economics (24.2%), education (21.4%), the humanities (17.2%), and social sciences (13.9%). Broken down by sex, females selected home economics (26.4%), education (23%), the humanities (18.2%), and social sciences (12.4%), whereas males selected engineering (29.2%), social sciences (26.5%), insurance (10.8%), and humanities (9.3%). However, at four-year universities, the top four professional disciplines were social sciences (39.6%), engineering (18.6%), humanities (16.6%), and education (5.4%) in the same year. Female students chose social sciences (29.8%), humanities (29.4%), education (8.6%), and engineering (5.0%); whereas males chose social sciences (45.5%), engineering (26.9%), education (8.8%), and science (4.3%). Home economics is a traditional female discipline providing no advantages in the job market in the twenty-first century. Practical majors such as education, social sciences, and engineering are generally more conducive to employment. After the introduction of equal employment in 1986, a dual-career ladder system was introduced in Japanese enterprises.[4] Applicants are expected to have immediately useful skills, so four-year college graduates who graduate in these practical disciplines are more competitive in the workforce.

According to a more recent survey (Ministry of Health, Labor, and Welfare 2016), the average annual income of junior college graduates was about ¥300,000 less than that of four-year university female

Table 11.3 Composition by discipline of four-year universities and junior colleges students (May 1, 2001)

Undergraduates in four-year universities

	Total	*Social sciences*	*Engineering*	*Humanities*	*Education*	*Science*	*Agriculture*	*Medical and dental*	*Home economics*	*Pharmaceutics*	*Others*
Total	100.0	39.6	18.6	16.6	5.4	3.6	2.8	2.6	1.9	1.5	7.4
National	100.0	16.8	31.2	7.2	16.5	7.2	6.7	6.1	0.3	1.0	7.0
Local public	100.0	33.4	15.2	17.5	1.2	4.5	2.8	4.7	2.4	1.5	16.7
Private	100.0	45.4	15.8	18.8	3.0	2.6	1.9	1.6	2.2	1.7	7.0
Men	100.0	45.5	26.9	8.8	3.5	4.3	2.7	2.7	0.2	1.0	4.3
Women	100.0	29.8	5.0	29.4	8.6	2.4	3.0	2.3	4.7	2.4	12.4

Junior colleges

	Total	*Home economics*	*Education*	*Humanities*	*Social sciences*	*Insurance*	*Art*	*Engineering*	*General education*	*Agriculture*	*Others*
Total	100.0	24.2	21.4	17.2	13.9	10.0	4.5	4.1	2.4	1.0	1.4
National	100.0	–	–	–	4.2	90.0	1.4	4.4	–	–	–
Local public	100.0	16.0	4.1	14.0	19.8	35.5	3.2	0.3	2.1	4.9	–
Private	100.0	25.4	23.2	17.9	13.7	6.1	4.6	4.4	2.5	0.7	1.6
Men	100.0	4.7	7.9	9.3	26.5	10.8	5.1	29.2	0.6	4.6	1.3
Women	100.0	26.4	23.0	18.2	12.4	9.9	4.4	1.1	2.6	0.6	1.4

Source Ministry of Education, Culture, Sports, Science, and Technology (2001)

graduates in 2016, and this gap will widen further as they grow older (Li 2006, 100). Moreover, amid the declining birthrate and the aging of the population, it is becoming difficult to maintain the conditions for Japan's traditional uniform employment system centered on male employees,[5] including the bulk hiring of new graduates, promotion by seniority and lifetime employment.

In August 2015, the Act on Promotion of Women's Participation and Advancement in the Workplace was approved in the National Diet of Japan, and the Ministry of Health, Labor, and Welfare (MHLW) began implementing the system the following year in October. The aim is to create a society where women who want to be active in the workplace can give full play to their individuality and abilities. Companies with more than 301 employees must promote women in the workplace using specific numerical targets and announce reference information for women for their choice of occupation; the companies with less than 300 employees need not do so. At the legal and national policy level, the government further promotes the use of women in order to make up the labor shortage caused by the aging of the population and declining birthrate (Gender Equality Bureau Cabinet Office 2017).

After the promulgation of this law, enterprises have changed accordingly. According to the DISCO's (2016) findings, 42.1% of respondents said they planned to increase the proportion of female graduates when they hired in 2017. Among them, 52.0% of companies in the IT industry and 44.8% of those in the manufacturing sector answered that the ratio of female college graduates should be increased. These figures reflect the positive attitudes of these enterprises toward employing female graduates.

While the government promotes and enterprises cooperate, the higher education market for women is changing accordingly. For instance, in 2006, the numbers of female four-year university and junior college students were 1,011,908 and 177,162, respectively. The latter was 17.5% of the former. Ten years later, in 2016, the respective numbers were 1,231,868 and 117,461. The number of students in junior colleges is only 9.5% of that in four-year institutions. In other words, the number of university female students is increasing, and that of junior college female students is decreasing. Furthermore, as shown in Table 11.2, in 2016 the number of students in junior colleges, both male and female, dropped to half that of 2002. The total number of students is the lowest in history, but

even so the number of female students is still close to 90% of the total in junior colleges. The difference is that the number of male and female students in four-year universities is steadily increasing, and the proportion of female students in the total number is also gradually increasing, with the total number reaching a record high.

With the increase in the number of female college students, attending college has become the default option for young women. Receiving higher education is no longer a label that implies family strength; female graduates can obtain better social status and income through their own strength and effort. Therefore, the three functions of higher education mentioned above have changed (Li 2012). For female graduates, the status-shaping function and the status-demonstrating function have almost disappeared, and the status-achieving function has become the primary function of higher education in twenty-first century in Japan. The decline of junior colleges also derives from the same set of factors.

To ask our leading question again: will junior colleges really disappear? Indeed, as stated above, the government tentatively designated junior colleges as tertiary institutions that failed to deliver four years of undergraduate education as a temporary measure in 1950. The number of national junior colleges reached a maximum of 41 in 1991 and decreased to only 2 in 2009. In 2010, national junior colleges completely disappeared, completing their public policy mission. In 2014, MEXT issued a report entitled, "About the Future Way of the Junior College," which states that the mission of the remaining junior colleges will be professional training and lifelong learning. However, even within these fields, they face powerful competition from four-year universities. It can be argued that the outlook of junior colleges remains poor.

The objective decline of junior colleges reflects fundamental changes in the overall structure and functions of Japanese higher education. The increasing abandonment of junior colleges by women also reflects a fundamental shift away from the ready acceptance of the notion of "good wife and wise mother." In the twenty-first century, the "well-educated women's sphere" embraces both the home and workplace. The traditional male-centered corporations are also opening their doors to female college graduates with the support of both government encouragement and the law. Consequently, it can be said that junior colleges in Japan *will* gradually die away in the near future as their transitional mission in female higher education progressively disappears.

Notes

1. Foundation degree (*Jun Gakushi*) is a diploma certifying completion of the first cycle of higher education. Strictly speaking, it is a title equivalent to a degree, not a formal degree.
2. Associate degree (*Tanki Daigakushi*) is a diploma below that of bachelor standard in the field of higher education, equivalent to the European National Qualifications Framework (NQF) Level 5.
3. In Japan, more than half of women's universities were upgraded from junior colleges; few were directly founded as women's universities. For example, in 1951, there were 34 women's universities in Japan (15.3% of the total number of universities). From the late 1950s to the early 1960s, the growth rate of this type of women's university was far higher than that of ordinary universities, with the total number reaching in 40 in 1961 (16% of the total number of universities) (Li 2006, 21).
4. Japanese companies have adopted two kinds of career paths—*Sougoushoku* (regular full-time positions with the prospect of promotion), and *Ippanshoku* (positions limited to general office work, with limited possibilities for promotion or advancement in terms of role or salary). Since then, the separation of male and female jobs has become both horizontal and vertical (Li 2006, 46).
5. Women, especially in the past, would be expected to leave the company to get married at some point and so would generally be expected to take a general office work position. For ordinary Japanese companies, the history of hiring female four-year university graduates is short compared with that of men. Companies began hiring female four-year university graduates as regular service employees (*Ippanshoku*) in 1969. In 1977, only 519 of 1827 companies (28.4% of the total) employed female four-year graduates. Among them, 146 enterprises employed only 185 companies employed only 2. In other words, about 70% of the enterprises refused to employ female four-year university graduates; the rest of the enterprises employed only one or two female four-year university graduates (Fukaya 1978).

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CHAPTER 12

Gender Equality in Higher Education Institutions: Current Status and Key Issues in South Korea

Minho Yeom

Introduction

In terms of the demographic composition and gender roles of Korean Higher Education Institutions (KHEIs), issues and challenges of gender equality are readily apparent. In the case of demographic composition, female opportunities for tertiary education have increased dramatically, but in terms of the quality of gender roles, such roles are in an unequal situation that does not absolutely follow the quantitative growth seen in population composition. For example, the ratio of females attending tertiary education institutions was 28.74% in 1985, but steadily increased over the next 30 years, reaching 43.29% in 2016 (Ministry of Education and Korean Educational Development Institute 2017). However, the proportion of "female professors" and those "participating in key posts," which symbolically represent women's human rights and the female role

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expansion in KHEIs, is still low. For example, the proportion of female professors in KHEIs is 24.79% (ibid) and the proportion of "female professors" participation in decision-making posts in national universities is only 12.3% (Shin 2017). From this, one can see the duality of so-called entry barriers with regard to gender is working.

This duality confirmed in KHEIs can be interpreted in two ways. First, the increase in females entering tertiary institutions means that the demand for women to qualify for better living conditions (e.g., employment) on an individual level has increased. On the social level, the social demand for high-level female workers has increased as the economy has grown, and the human rights of women have grown as social democratization has proceeded. Second, the inequalities experienced by women in KHEIs reflect a variety of social and cultural factors that have accumulated for a long time in the male-dominated Korean society. Females still do not have the social status and roles corresponding to their quantitative growth in KHEIs and are not recognized for the actual contribution they make in terms of their proportion of entering faculty positions and participation in decision-making positions.

Recent studies on gender equality in KHEIs reveal three major trends. First, they analyze the current status of gender equality education in KHEIs and suggest alternatives. These studies examine the effects of gender equality education programs through empirical methods (Lee 2010) and examine the reality of university curricula by analyzing the gender equality promotion performance report of national universities and propose alternatives (Kim 2016). Second, a few studies are based on the analysis of the gender ratio of female students and professors in universities, including a study of the introduction of government policies related to gender equality (Song 2012), studies suggesting directions for gender equality based on the analysis of gender equality issues in universities (Lee 2012, 2017; Lim 2012), and a study on gender discrimination experienced by female professors in a university (Kim 2004). In particular, the results of this research on gender discrimination within universities are highly critical when viewed through the lens of the actual conditions of KHEIs with respect to gender equality. Nahim is one the leading critics within this research area, describing the "co-ed university as a space of multi-layered female exclusion, a space of everyday female silence, a space of male-centered cultural reproduction" (Nahim 2006, 148).

Third, a few studies explore sexual violence and sexual harassment by both male faculty members and students that occur in college life and

events such as freshmen orientation, membership training, and festivals. The researchers have found that sexual violence and sexual harassment are not a matter of individual actors or victims, but are related to gender discriminatory cultural norms and gender power relations in Korean society in general (Ha and Park 2008; Nah and Roh 2013; National Human Rights Commission 2012; Lee 2012; Park 2015).

Since the early 2000s, the Korean government has introduced gender equality policies to actively cope with gender inequality and gender discrimination in KHEIs. Examples of this policy include the introduction of the National University Female Professor Recruitment Target (2003), the Provision of Incentives through the Evaluation of Gender Equality Action Plan Reports (2007–2009), the Career Center Support Program for Future Female Leaders (2003), and the Sexual Harassment and Sexual Violence Counseling Center (2005). The introduction of a gender equality policy and its implementation by the government has raised the interest of society and universities on the general issue of gender inequality and gender discrimination as it has been welcomed by women and led to partial improvement of related problems. Also, the government's policy contributes to the prevention of sexual harassment and sexual violence in universities and is expected to change the overall climate in the future. However, as for some particular aspects of gender equality such as the rise of female status and the expansion of female role within universities, the pace of change is slow, and the results are not as was expected.

The purpose of this chapter is to understand the current status of women in KHEIs and to discuss alternatives to the issues faced. I pay particular attention to the current status of female students and professors, the contents, outcomes, and limitations of government-led gender equality policies as well as subsequent responses of various universities. Ultimately, I argue that gender equality in KHEIs should adopt more affirmative action to address a male-dominated university structure and culture.

Current Status and Issues of Female Students and Professors in KHEIs

For the past three decades since the early 1980s, the proportion of women in KHEIs has steadily increased (Fig. 12.1). Of note is that even before this period, the proportion of women entering tertiary education institutions had gradually increased. However, since the 1980s, along with the policy of massification of higher education, women's demand

for university education has increased dramatically. Considering that one primary purpose of an individual entering a tertiary education institution is to both acquire the knowledge of liberal arts that can pioneer her own life and the knowledge, skills, and qualifications necessary for the profession to enhance the social status, the increase of female students in KHEIs not only represents the gains for female individuals, but a socially significant phenomenon.

In terms of the expansion of educational opportunities, the increasing number of female students enrolled in KHEIs is very positive. The percentage has steadily improved over the past 30 years since 1985. In the case of two-year colleges, it increased from 35.9% in 1985 to 40.84% in 2016. In the same period, that for four-year colleges increased from 27.66 to 43.21%, while for graduate schools it increased from 18.26 to 49.04%. Especially, impressive is the improvement in the relative numbers of female students attending graduate school (Fig. 12.1). The increasing number of women in postgraduate courses is an indication of women's perceptions of change in efforts to improve their professional and social status.

The degree attainment of women in graduate schools has also increased sharply (Fig. 12.2). The percentage of female degree holders, including those for masters and doctoral degrees, increased from 17.90%

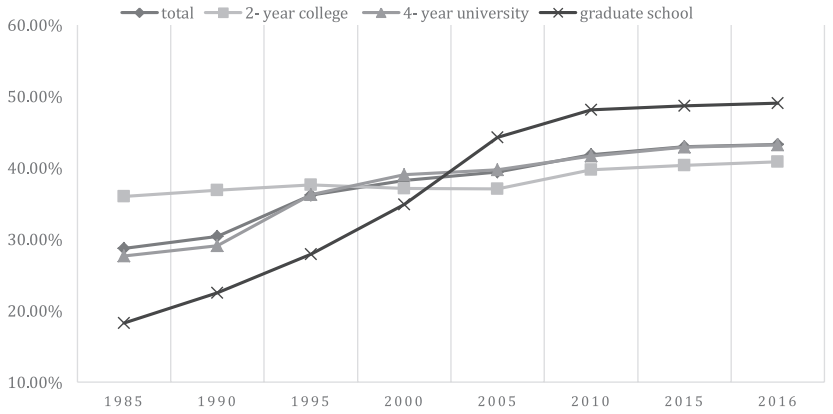

Fig. 12.1 Percentage of Female Students in Higher Education Institutions (*Source* Ministry of Education and Korean Educational Development Institute (2017). *Statistical Yearbook of Education* (each year))

in 1985 to 48.70% in 2016. During the same period, the percentage of females obtaining a master's degree increased from 31.70 to 50.85%, and that for doctoral degree acquisition increased from 20.54 to 36.12%.

The number of female professors in KHEIs has steadily increased, but does not equal the high growth rate of female undergraduate and graduate students (Fig. 12.3). The proportion of female professors increased from 17.65% in 1985 to 24.79% in 2016, approximately 7%. Over the same period, the percentage of female professors in two-year colleges increased 13.89% points from 23.62 to 37.51%, but increased only by 6.54% points from 16.33 to 22.87% for four-year colleges. In the case of graduate schools, it increased from 7.7 to 21.24%. The reason why the rate of increase in the number of female college professors in two-year colleges is higher than that in four-year institutions is probably from the organizational characteristics of two-year colleges, as they have a larger number of departments, such as social studies, software, design, beauty, and nursing, where females are relatively more competitive than males.

The numbers of female professors at four-year universities is also on the rise, albeit at a far lesser rate (Fig. 12.4). As of 2000, when the statistics were relatively accurate, the percentage of tertiary education

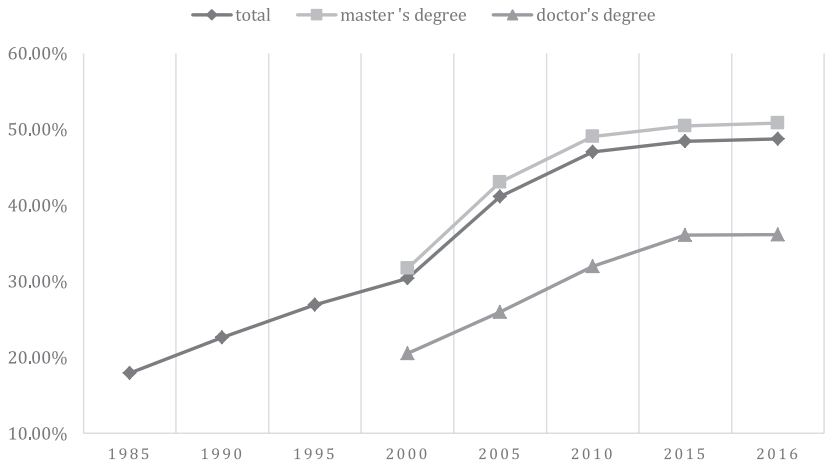

Fig. 12.2 Percentage of Female Graduate School Degree (*Source* Ministry of Education and Korean Educational Development Institute (2017). *Statistical Yearbook of Education* (each year))

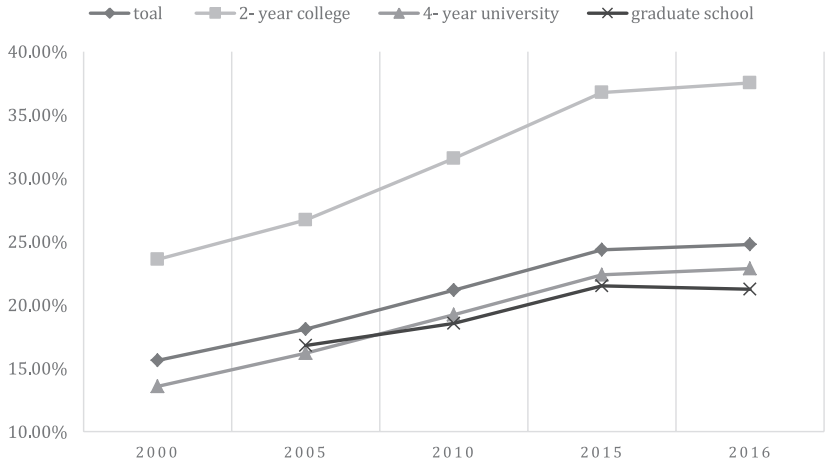

Fig. 12.3 Percentage of Female Professors in Higher Education Institutions (*Source* Ministry of Education and Korean Educational Development Institute (2017). *Statistical Yearbook of Education* (each year))

professors increased from 15.64% in 2000 to 24.79% in 2016, an increase of 9.15% points over 16 years. By type of establishment, national and public universities increased from 9.29 to 15.60% and from 17.74 to 27.46% for private universities. The rate of increase in the number of female college professors in private universities is 3.41% higher than that of national and public universities. On the other hand, the proportion of females who participate in key posts in four-year national universities has increased slightly over the past eight years. For example, the numbers of women participating in major posts increased 3.6% points from 8.7% in 2008 to 12.3% in 2016, while the numbers of women serving on the main committees within the university increased by 6.6% points from 9.8 to 16.4% over the same period (Shin 2017, 15).

A few characteristics and issues of female status and role changes in KHEIs, which have been confirmed through statistics since 1985, are worthy of note. First, women's college entrance rates have increased. The numbers of females at tertiary institutions, for example, have steadily increased over the past three decades since the early 1980s. The percentage of four-year college females reached 43.21% in 2016. Second, the numbers of female students in graduate schools reached 49.04% in 2016,

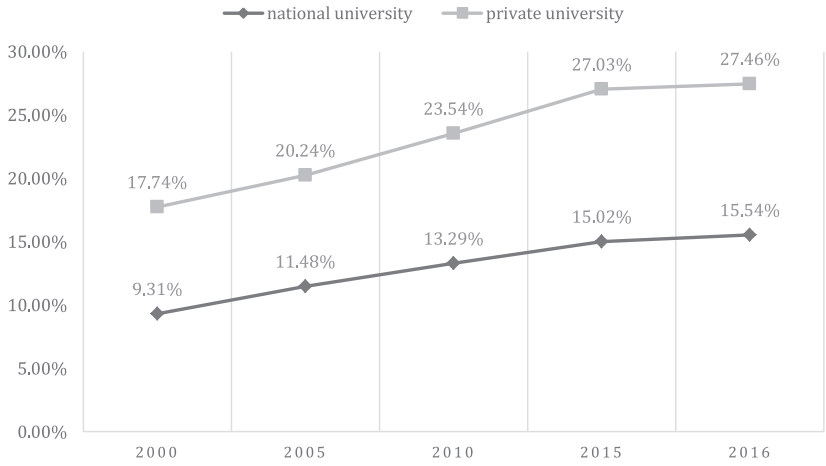

Fig. 12.4 Percentage of Female Professors in four-year Universities (*Source* Ministry of Education and Korean Educational Development Institute (2017). *Statistical Yearbook of Education* (each year))

almost equal to that of males. These data not only reflect the increase in the proportion of female undergraduate students, but also reflect the expectation of females pursuing the profession and responses to social demand.

Third, the duality of entry barriers can be confirmed by the population composition ratio of KHEIs. Here, duality means that entering university and graduate school is open to female students, but it is limited with respect to the recruitment of professors and their participation in university decision-making posts for two major reasons. One is that the high male ratio overall for university professorships is linked to the privileged status of the professorship role in Korean society, where the professorship is a high position involving social authority, economic stability, and cultural recognition. As a result, professorships have been and remain the preference of men and competition in the entry process is fierce. However, it is difficult for females to maintain a like competitiveness relative to their male counterparts, especially because of conservative social norms, job-family priorities, and discrimination present in academic circles. The other difficulty for females to enter the professorship ranks is that the numbers of male professors in Korean universities

are absolutely high, which reinforces within social structures the sense that male characteristics are related to institutional structural characteristics and projected throughout the institutional culture of male-oriented university organizations. This characteristic influences efforts to establish gender equality perceptions and gender awareness of the university as a whole (Lee 2017, 69–70).

Gender Equality Policies in Government and Universities

Gender equality in KHEIs can be further discussed by dividing it into government-led policies and the subsequent responses of universities. Since 2002, the government has set goals for gender equality and implemented various policies as well as sought to develop related programs. Here, the year 2002 is significant for the reason that it was the time that government formulated and began to implement concrete gender equality policies. At that time, the Kim Dae-jung administration (1998–2003), which replaced the dominant regime for the first time in 50 years after the establishment of the Korean government in 1948, paid particular attention to women's human rights growth and status improvement. The subsequent Roh Moo-hyun administration (2003–2008) also maintained the gender equality policy pursued by the previous government.

Gender equality policies at the government level are mainly implemented by the Ministry of Education (MOE) and the Ministry of Gender Equality and Family (MGEF). Government policy has led to the expansion of employment opportunities for female professors in universities and the opportunity to participate in decision-making posts. However, government policies have been subject to considerable differences in policy implementation and performance depending on specific universities and departments. A university's response to government policy is not voluntary, nor is it aggressive. Universities and departments generally tend to respond passively to the guidelines provided by government policy. Typically, a university establishes gender equality-related institutes and develops related programs primarily to receive government subsidies or to minimize the disadvantages caused by non-compliance with government regulations. In this context, the realization of gender equality within a given university is particularly emphasized by the vision and direction of its leaders and the consciousness of the faculty. The contents, outcomes, and limitations of the gender equality policy implemented since early 2000 are discussed in the following, divided into those focused on the central government and HEIs.

Government-Level Gender Equality Policy

The Korean government's gender equality policy represents a top-down approach. This method is an effective means to maximize the effect of gender equality in the short term, considering the nature of the governmental operating system of Korea, which traditionally exercises strong power at the central government level. The key point of major policies governing gender equality in universities led by the government is to expand the numbers of female professors and to increase their participation in decision-making posts. The introduction of these policies reflects two major intentions (Min 2004, 7–8).

One is that the expansion of the recruitment of female professors and the promotion of female roles within the university can be a key factor in improving the existing personnel composition of institutions dominated by male professors. The expansion of female roles can also present the possibility of creating future opportunities for female students, the numbers of which have steadily increased in both undergraduate and graduate courses. The widening of recruitment and expanding the role of female professors is meaningful in that the government recognizes and is desirous of extending the social competence of highly educated women by adopting a social dimension approach, and it is meaningful that female students can make their future in more positive and confident ways.

The other issue has been to facilitate the overall capacity building of women, a task which has mainly focused on expanding their roles within the fields of science and engineering. As the proportion of females entering tertiary education institutions has steadily increased over the past three decades, government-led capacity-building policies have led to the development of knowledge, information, skills, attitudes, etc. by focusing on education and support structures. For example, gender equality education throughout the regular curriculum and extra programs are being operated in a variety of ways, including strengthening gender awareness, guiding career design, and training for job skills. This approach is one of the affirmative measures, focused on the concrete practice of pursuing gender equality.

With these two intentions, MOE and the MGEF have formulated and implemented a range of concrete policies and programs to promote gender equality in universities. The MOE has led with three basic policies. One has been to increase the ratio of female professors in university professorships and university decision-making positions. This MOE

project, formulated in 2002, sought to establish a plan to promote a "Female Faculty Recruitment Target," and specifically by launching "the Committee for Gender Equality in University Faculty Recruitment" in 2004. In March 2004, the MOE announced its plan for gender equality in order to implement affirmative action such as generating plans for improving gender equality in universities.

In this effort, the MOE asked institutions to actively set up a university-level plan of "Improvement of the Process and Method of Female Professor Recruitment," as well as one for "Female Professor Participation in the University's Major Decision-making Posts" (Min 2004, 5). As a specific implementation plan, the MOE, in accordance with the Gender Equality Action Plan, asked four-year national universities to make the plan compulsory, but respected an autonomous enforcement by four-year private universities and two-year colleges.

The other efforts have been the "Women Scientist Support Project," implemented in 2002 (Song 2012, 142–145). Its purpose has been to induce female students to pursue career paths in science and engineering and to enhance the capacity of female college students to expand their opportunities to enter fields of science and technology. The project is focused on developing research on teamwork in the engineering field, establishment of a mentoring system between female scientists and female students, improvement of the engineering education system and establishment of a female-friendly engineering environment. Supporting the promotion of female scientists and technologists was mainly aimed at securing their human resources in science and technology while expanding women's entry into non-traditional fields by attracting excellent female students in secondary to graduate schools in science and technology. Specific projects include selection and support of research projects in science and technology by cultivating the next generation of female scientists and technologists through the promotion of the Women into Science and Engineering (WISE) program, promotion of the Women's Academy for Technology Changer in the twenty-first century (WATCH 21) projec t, and the Women into Engineering (WIE) project.

The final project has been the establishment and operation of the Women Science and Technology Support Center (WIST), the purpose of which has been to create a special institute for the support of women scientists and technologists to carry out career development, professional training, career support, policy development, and research for women scientists and technologists. It is expected to contribute to the

enhancement of national competitiveness by cultivating excellent scientists and technologists by actively supporting female science and technology personnel.

The second major effort has been a project organized by the MGEF (Song 2012, 142–145), the department leading overall women's policy in Korea by establishing the basic plan for women's advancement and a comprehensive plan for the development of women's human resources. The Basic Plan for Women's Policy and the Comprehensive Plan for Female Workforce are also tools for coordinating women-related projects in other ministries and women's human development projects. In an effort to promote gender equality in the MGEF, there is also a project related to a career development center for female college students, whose purpose is to initiate a career plan from the lower grades onward by operating a comprehensive program ranging from career development to employment support to promote a smooth transition for female college students into the economy.

To this end, the MGEF has designated the Centers through examination and encouraged universities to carry out various projects by supporting their budgets. Targeted at female students at four-year colleges and unemployed women with a higher education degree, the MGEF expected to increase the participation rate of highly educated women by strengthening the capacity of universities to meet the demands of both female college students and companies and by spreading a capacity development infrastructure. In particular, in 2009, the MGEF sought to strengthen the status and authority of the career development center for female college students in the university, as well as entry into the economy by strengthening the employment linkage program. The MGEF and the MOE jointly designated the center to enhance synergies from 2010.

Gender Equality Programs in Universities

Gender equality efforts within universities differ depending on whether they are national or private institutions and the characteristics and context of the particular university. National universities have accepted gender equality policies set by the government because of their strong relationship to government budgets and administrative structures. Within private universities, gender equality efforts are being made autonomously in accordance with the circumstances and characteristics of specific universities, since they are recognized as having relative autonomy

with regard to university administration from the government. Since the early 2000s, universities, especially national universities, have implemented a range of policies and developed various programs in accordance with the government's gender equality guidelines. Looking at the changes over the years, the gender equality of universities is proceeding in a way that obeys government guidelines rather than seeking autonomous pathways. For example, each university receives government funding, installs related organizations, and operates a variety of programs, usually limited by the extent of such funding.

However, the achievement of gender equality efforts in universities varies across specific colleges and departments. A representative example of gender equality performance is the female participation rate of key posts with the ratio of female professors participating in university decision-making posts as an important indicator of gender equality, primarily because the government has recognized the female faculty ratio as the most valid general indicator of gender inequality. Consequently, it has encouraged female faculty participation in university administration and policy making as a means to increase over time the female faculty ratio. In addition, the government has imposed mandatory female participation for various committees. In the past eight years, the ratio of female professors participating in the decision-making process in universities has improved slightly, but has not achieved as much progress as anticipated. For example, the percentage of women participating in major posts increased 3.6% from 8.7% in 2008 to 12.3% in 2016, while women in the main committees within universities increased by 6.6% from 9.8 to 16.4% over the same period (Shin 2017, 15).

There appear to be two major reasons why the gender equality policy of the government has not achieved its expected results. One is the structural dimension of university administration and the other is the everyday organizational life of the university. With respect to the first, gender is not considered an important issue in the structural aspects of the university as defined and experienced by the overall culture of these institutions, primarily because in most aspects the Korean university power structure operates as a male-centered enterprise. This inequitable structure has not facilitated raising the awareness and interest in gender issues.

For example, universities do not recognize gender as an important policy and institutional design issue in general because many policy makers and practitioners have not been formally trained in gender design

techniques, and only some manifestly visible statistics have emerged to measure progress. This in turn has not led to reorganizations of gender mainstreaming in university policy. In addition, no overall work integrates gender into policies, programs, and projects for universities, and thus, they tend to lack effective design principles and the methodological tools essential to successful policies and practices (Huh 2010, 58). The root cause of this can be found, as mentioned in the previous section, in the fact that the proportion of full-time female professors in universities is still extremely low and the ratio of female professors participating in decision-making processes also remains low. As a result, these rates not only limit the perception of women's reality, but also limit the ability to reflect the characteristics and needs of women in university administration.

The other, the perception of gender equality, is not properly reflected in the daily lives of university members. Universities in general are perceived as having a relatively high level of gender equality. However, in recent events at university levels, this general perception of gender equality in everyday life is not consistent with reality. To cite an important example within universities, sexual harassment, and sexual violence are frequent occurrences. As evidence of this, one can point to a relatively recent study on sexual violence and sexual harassment incidents between professors and students (Park 2015), and research on sexual violence and sexual harassment experiences during freshman orientation and membership training (Lee 2012; National Human Rights Commission 2012) which reported various types of damage experienced by female students. Transition of gender equality perceptions and practice in daily practices would seem to require more time and considerably more effort to prove successful.

Conclusion

The rapid massification of Korean higher education since the early 1980s has widened the demand for higher education for women. The proportion of females in tertiary education reached 43.29% in 2016, and the ratio of graduate school women reached 49.04%, almost equal to that of their male counterparts. The expansion of female participation in higher education is a significant achievement both for the growth of individuals and for social development. Women's effective participation can not only

develop their competencies as democratic citizens, but also contribute to improve their social status and economic growth through the acquisition of high-quality knowledge, competences, and attitudes from higher education. However, unlike the expansion of women's entry into higher education institutions, the recruitment of female faculty is still limited within universities, and they are neither facilitated nor endowed with opportunities to participate in major decision-making positions within universities.

Recognizing the issue of female inequality in KHEIs and seeking alternatives for gender equality have been spreading through various government-led policies and programs since early 2000, but it is not easy to find visible results within the overall university situation. Various government-led policies and programs have been structured in terms of legislation and subsequent institutionalization. In terms of content, they include examples reflecting policies that are aimed at affirmative action such as various educational programs and infrastructure for females only. However, as discussed above, the results of various studies suggest that gender equality policies have not achieved their initial expected results (Koo 2007; Shin 2017; Song 2012).

Government policies and programs for gender equality in KHEIs can be reviewed in two ways. One is the social change that can be confirmed from the macro perspective and the enduring cultural structure of the male-centered Korean society. Recently, Korea has been rapidly spreading its perception of gender equality in accordance with the progress of political and social democratization, which is a desirable direction. However, the structure and culture of universities still reflect the conservative nature of male domination, which hampers the expansion of social consensus on gender equality and the expansion of women's roles in universities.

The other can be confirmed from the microscopic point of view that the efforts of various universities and faculty who practice gender equality policies as specified at the government level are insufficient. The reason is that university management in Korea mainly continues to be centered on the role of male professors, and the perception of gender equality among individual faculty members is low. As the resulting ratio of female professors is low, they tend not only to lack the practical power to exercise their influence but also to occupy and stay in symbolic and nominal positions.

Finally, I conclude this chapter by suggesting three alternatives to address the issue of gender inequalities discussed above. First, the chapter promotes the public debate on the role and representation of women in the university. This public debate not only makes possible changes in gender awareness of members of the male-centered university structure and culture, but also serves as a basis for disseminating a consensus on gender equality and drawing up various types of institutional improvements. As the last educational institution that can immediately establish the awareness of gender equality before having its graduates enter society, the university should promote the public discourse related to gender issues as both as educational commitments and as a "living space" for students and reflect on the daily life of all its members.

Second, it is necessary to provide active gender education through regular and extra courses within the university. In the case of students, through the regular liberal arts curriculum, professors are required to receive gender education through training at the time of their appointment. In addition, a separate capacity-building program should be developed for female students and female professors. A special program for female professors is needed within university organizations where male professors continue to occupy the majority of positions. For example, designated programs could provide opportunities for female professors to develop interpersonal, communication, KHEIs, and collaborative skills as well as those to discuss community issues with peers through a variety of channels. This is especially warranted because when the ratio of female professors is small in universities, they tend to maintain their own status as a symbolic and nominal existence while existing within a marginalized one or adopting a passive attitude.

Third is the need for special efforts by the government and universities to institutionalize gender equality. In particular, institutional constraints are needed that enable substantial effects rather than passive improvements that are conducted in accordance with governmental guidelines at universities and departments. For example, it is necessary to introduce a compulsory system that mandates the quota of female professors and the ratio of key posts in universities. This radical argument is based on the reality that the gender equality policy implemented since early 2000 has not achieved its expected results largely as a result of deferring to the judgments and existing practices of universities and departments.

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CHAPTER 13

Women in Higher Education: A Vase-Breaking Theory by Female Technologists in Taiwan

Ya-Hsuan Wang

Introduction

Taiwan's preeminence as a kingdom of technology is reflected not only in its curriculum structure, but also in its gender allocation in terms of majoring in university subjects. By virtue of practicing *Gender Equality Education* in schools, more and more female technologists are working in universities while more and more girls are enrolling in technological subjects in universities. However, according to previous research (Wang 2010), rather than challenging gender inequality, female technologists actually reinforce patriarchal society. Taiwan has moments of gender equality—for instance, the first female, President Tsai, was elected in 2016 while transgender politician Fen Tang was recruited by the government and transgender teachers such as Janet Chen were hired in schools. However,

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gender inequality is still pervasive in implicit and subtle ways due to patriarchal ideologies of gender status and stereotypes.

Responding to emerging social issues such as gender mainstreaming and gender equality in the multicultural and e-society, the *2004 Gender Equality Education Reform* that operated within Taiwan's particular sociopolitical context aligns with the revolution of gender structure in the field of technology and science. However, a recent Department of Statistics (2009) survey continues to show that the ratio of males and females in technology the university level is 78.3 to 21.7%, while that for humanities is 31.1 to 68.9%, and the social sciences 37.5 to 62.5%. Thus, it can be observed that gender disparity continues to exist in university subjects, and the gender gap in technology is still very prominent.

Technology has often been perceived in gendered terms. The normative and stereotypical notions of gender roles often stress that men are more interested in technology and science, while women are seen as voluntarily choosing to stay in nontechnology fields such as the humanities. However, these normative and traditional views of gender disregard the unequal structure in society, to which much gender differentiation owes its roots to social construction.

An empirical study by Wang (2010) shows that female technologists have successfully demonstrated both femininity and masculinity characteristics in comparison with men who are constrained by normative notions of masculinity. However, even while women have successfully entered the fields of science and technology, ostensibly breaking gender boundaries, often they are perceived in terms of "failing" to maintain their female identities in their performance of gender. Thus, it is significant to understand how women enact gender in their attempts to challenge gender boundaries and create further gender mobility.

Addressing the framework provided by the UN policy of gender mainstreaming since 1985, this chapter focuses on gender-technology relations. It challenges the normative notion of technology as a masculine culture and technology as a male institution. The chapter aims to propose a "vase-breaking theory" by integrating all multiple influences and positioning upon female technologists in terms of the domains of the personal, family, school, and society.

Literature Review

Lather (1991) defined gender regime as the power relations between men and women that determine the division of labor. Gender is one of the most salient principles of social relations; it shapes the conditions of human life including the allocation of power and privilege, and the formation of identity, consciousness, and social systems.

Brickhouse (1994) posited two ways of perceiving the equity project in science education—the deficit model and the inferiority treatment model of gendered stereotypes. The deficit model reflected the sexist tendency in gender research in the 1970s and focused on the mistaken belief that girls lack the cognitive skills to do science or perform abstract reasoning. The inferior treatment model was supported by evidence of girls with higher academic achievement, but lower involvement in technology, which focuses more on why girls "won't do" science, reflecting their low participation in the field due to gender discrimination. This research adapts the inferior treatment model.

Sexual politics in technology is a perspective that examines how gender constructs women and how elite women can break these social constructions. Connell (2006) rethinks several policies such as GIST (Girls into Science and Technology)/WISE (Women in Science and Engineering), by asking "do these policies make gender equality or gender discrimination?" If these policies asked women to surrender their femininity and reset a masculine identity, then GIST/WISE can change nothing (Wajcman 1991).

Wang (2014) analyzed four aspects of gender boundary crossings and proposed a successful discourse by women scientists and technologists. First, individual female success was based on emulation of masculinity, self-empowerment, and personal interests in multiple disciplines. Second, they received family support, as well as sufficient socioeconomic status, engaged male playmates, and operational toys in their youth. Third, schools supported them by enabling women role models in single-sex schools, and creating a talent class of math and science, alongside early streaming. Finally, social support came from a policy that stressed gender equality in technology in terms of achievement and participation.

Wang (2016) also proposed four "trap discourses"—*the discourse of anti-feminine selfhood* produced self-denial of women's rights, a self-exclusion effect of masculine women, achievement phobia, and incapacitating panic; *the discourse of shouldering women responsibilities* saw motherhood

as original sin, non-motherhood as stigma; *the discourse of de-feminization* came out of a no women-only space, sexual harassment, against femininity; and *the discourse of non-female community* reflected STEM as man's land. It corresponded to Guy's (1994) organizational architecture theory of a glass ceiling, glass walls, trap doors, and sticky floors.

Methodology and Methods

This study adapted a feminist approach to disclose the personal descriptions of female experiences in Taiwan's higher education. Individual interviews were conducted with 28 elite women, including 12 female university teachers and 16 female university students majoring in technology in six of Taiwan's top universities: *National Taiwan University*, *National Cheng Kung University*, *National Chiao Tung University*, *National Tsing Hua University*, *National Taiwan University of Science and Technology, and National Chung Cheng University*. All the interviewees were from a portion of the diverse ethnic backgrounds represented in the mainstream of Taiwan—most Fukkien Taiwanese, some Chinese, and a few Hakka Taiwanese. The details of the object of this study are seen in Table 13.1.

In this research, empirical data about gender-technology discourses were collected by individual interviews and oral historical interviews from 28 selected *elite females* (teachers and students majoring in technology in Taiwan's top universities). They were asked about their life experiences of "doing" technology, "doing" gender, and performing femininity or/and masculinity roles. Interviewing items were focused on their learning experiences in technology and its dilemmas, their motivations and the social models they followed, the successful self-understanding of elite girls in the field of technology; how they perceive their success, linking with their personal concepts of femininity or masculinity; how they have made/used/transformed/or discarded their femininity during their careers in technology; and how they interpret gender boundaries and gender mobility by mapping the gendered culture in the technology field.

Individual interviews were conducted with a brief description of the purpose of this study and the background of the researcher. This study is part of a two-year project funded by the National Science Council in Taiwan. The first year targets female technologists in universities and the second year female technology students in university. In most cases,

Table 13.1 Object of study

Age	32–57 (Older generation, university teachers)	12
	20–25 (Younger generation, research students, and undergraduates)	16
Marital status	Married, have children	7
	Married, no child	2
	Single	19
Position	Professor	6
	Associate professor	2
	Assistant professor	4
	Research student	8
	Undergraduates	8
Department	Electrical Engineering	7
	Physics	2
	Mechanical Engineering	5
	Biochemical Science and Technology	1
	Bioinformatics and Biosignal Transduction	1
	Architecture	1
	Computer Science and Information Engineering	1
	Biological Science and Technology	1
	Electronics Engineering	2
	Materials Science and Engineering	2
	Communications Engineering	2
	Aeronautics and Astronautics	2
	Medical Informatics	1
Total		28

Source Data collected by author

all the participants were willing to participate voluntarily in the project. Some participant's interviews were cut into several parts during the same day or different days due to their commitments. In total, the interview length for each participant was between 1.5 and 2.5 h. In order to double-check the quality of data, the study employed a follow-up investigation using Bem's (1974) Gender Role Scale. The scale investigates the type of gender role for the researched females—masculinity, femininity, undifferentiated, or androgynous.

Research Findings and Discussion

Based on the contextual data, this research concluded that elite girls did not grow up with specific gendered subjectivity and identity which was yet to be found in the women technologists' family, schooling, and social contexts.

Gender Discourse

Most of the girls in the study have strength in family support for technology learning. During their learning career in schools, they met some (but few) female technologists or scientists as social role models. Some of the elite girls were aware of gender inequality, which existed in their family or the wider society, yet most were not. They were not cognizant of the perception of technology as a masculine field, although the discourse of "men are good at technology" was found in their narration. The elite girls appear to be included in the field of technology, but they seemed to perform with more masculinity than femininity. The discourses of female-technologist nomination and strong-woman predication no longer appear to bother the younger generation. The boundary between masculinity and femininity for the younger generation is becoming blurred.

Individual: Masculine Women?

The above findings show that the female disadvantage in the invisible culture of gendered technology is mitigated. However, are they all masculine women? Based on Bem's scale investigation, the results are as follows.

Table 13.2 shows BEM's Gender Role Scale results by university teachers. Most are masculine women.

Table 13.2 BEM's gender role scale results by university teachers

	Masculinity	*Femininity*	*Typology*
TA	5.75	4.65	Masculine
TB	5.55	4.25	Masculine
TC	5.45	4.15	Masculine
TD	5	4.65	Masculine
TE	4.95	4.45	Masculine
TF	4.65	4.95	Feminine
TG	4.45	5.05	Feminine
TH	4.3	5.75	Feminine
TI	4.2	4.45	Undifferentiated
TJ	4.1	4.25	Undifferentiated
TK	4	4.55	Undifferentiated
Mean	**4.76**	**4.65**	M:5 F:3 U:3 A:0

Table 13.3 BEM's gender role scale results by university students

SA	5.25	3.75	Masculine
SB	5	4.1	Masculine
SC	4.75	5.4	Feminine
SD	4.7	5.05	Feminine
SE	4.65	4.9	Feminine
SF	4.45	5.3	Feminine
SG	4.25	5.35	Feminine
SH	4.8	3.9	Undifferentiated
SI	4.35	4.35	Undifferentiated
SJ	4.3	4.8	Undifferentiated
SK	4.05	3.7	Undifferentiated
SL	3.5	3.8	Undifferentiated
SM	3.4	3.6	Undifferentiated
SN	3.15	4.25	Undifferentiated
Mean	**4.33**	**4.45**	M:2 F:5 U:7 A:0

Table 13.4 BEM's gender role scale results

Gender role type	*Masculinity*	*Femininity*	*Undifferentiated*	*Androgynous*	*Sum*
Teachers	**5(46%)**	3(27%)	3(27%)	0(0%)	**11(100%)**
Students	2(14%)	5(36%)	**7(50%)**	0(0%)	**14(100%)**
Sum	**7(28%)**	**8(32%)**	**10(40%)**	**0(0%)**	**25(100%)**

Table 13.3 shows BEM's Gender Role Scale results for university students. Most are undifferentiated.

Table 13.4 indicates BEM's Gender Role Scale comprehensive results that masculine women constitute only 28% of the sample.

Although the quantitative data indicate that most of the participants are not masculine women, the interview data show that most of them consider themselves masculine. According to the qualitative data, female technologists performed masculinity more than femininity: e.g., preferring thinking and understanding to memorizing or recitation; preferring reading natural scientific mystery books to romantic fictions. The agreed beauty symbolized no professionalism. There is a dilemma that they mostly identify with male role models and adorn masculinity, but they cannot escape from the anxiety of being a "strong woman." The stigma of strong women is still in place. It corresponds to what Vaerting (1923) said of masculinity as the dominant sex.

Patriarchal Family: Not Really Bad?

Most females grew up in non-patriarchic families. They got support from their parents who provided their childhood with a good education, unisex toys, cultural capital, and high educational expectation. The most important support for the females is the family models in technology and science. Most interviewees identify with male role models in their family such as uncles or fathers working as engineers, medical doctors, or professors. Few of them identify with female role models in family, and yet they are really inspiring the interest of exploration.

However, is patriarchy really bad? Some participants grew up in a patriarchal family, but they still do well in technology fields. Although there is a popular argument that girls will benefit from a gender-free family as well as a gender equal society that is reflected in some of my participants, another argument reflects that some girls actually benefited from being in a patriarchal family, particularly from the older generation.

An older generation can take advantage of a patriarchic family structure in relating to the youngest daughter. In their own upbringing, parents had the highest expectations for boys. Elder daughters were trained to do housekeeping, yet the youngest daughter having essentially a "nobody status," was free from parental expectations which in a patriarchal society values masculinity and technology. Masculine women were welcome into STEM fields thanks to their man-like characteristics, and hence, they were enabled by patriarchal men, allowing them to survive in social structures with a strict gender boundary.

Masculine Schooling?

Schooling was perceived mostly unfriendly to girls' exploration into science and technology. Gender discrimination from the male gaze threatens girls' potentiality in technology. Female students had to spend much time crashing the "stigma of beauty," detaching the weakness-label, and moving beyond their teachers' Pygmalion effect. However, these constrains cannot by themselves dissuade girls' involvements in technology as long as they have female models and the freedom of inquiry in single-sex schools (radical feminist standpoint).

Feminist Society?

In recent years, Taiwan is gradually becoming a feminist society. Technology as a field was required to recruit more women in order to develop female technologies as well as fulfilling the demands of gender equality policies. There is a saying in Taiwan's vocational structure: Technology desires gender as well as gender equality. Therefore, within what is becoming a liberal feminism society, women university technology students perceive that the traditional gender stereotype of the "strong woman" has been transformed into gender reaffirmation. However, Taiwan is rooted nevertheless in a patriarchy society in which gender continues to have a strong direct effect on employment and family. As Yichi said, a female's achievement cannot be seen as her own success:

> Women are like working in a fishbowl. If we succeed, others criticize our success came from our beauty. If we fail, others justify female inferiority. Even in university our professors made me hate my gender. When my ability in SECT was well presented, my university teachers appreciate my effort rather than my potential. It seems to them my success is temporary because I work very hard. I was never recognized by my SECT talent. He even then said to me, "how come you beat your male classmates!" I then asked myself, shouldn't I beat men? (Yichi, 22 years old, undergraduate student, Department of Healthcare Information Management).

In society, numerous obstructions exist for female technologists: Women with a sense of alienation due to gender distances from men have less female models in SECT; women often threatened by dirty sex jokes could be disadvantaged by gender divisions of labor in SECT; women have the dilemma of choosing between a career and family. Most importantly, women themselves have the self-doubt syndrome because they don't *believe* their gender as others do.

The "older generation" encountered more obstructions than the younger generation, especially when they need networks for cooperation research. As a minority group in science, females lack societal resources and support and hence they work alone (Wu 2009). Much of the older generation had difficulty gaining access to international academic conferences and/or seeking or joining big cooperation projects, as Gueilang has said:

> Gender minority has impact on developing work groups. For example, women are disadvantaged in the social occasion. I feel uncomfortable in the international academic conference, which is full of male scholars, but I have to attend it. I have nobody to talk to during the coffee break. I was aware of being lacking of social networks. Women are too rare in the field of engineering to develop a cooperative project. We cannot be like men who are freely bud(d)y bud(d)y in the unformal situation and they easily found networks and budget for research cooperation (Gueilang, 52 years old, Professor Electrical Engineering).

However, the uprising of feminism in society encourages technology females by establishing a lot of new opportunities within which females can work. Thanks to such feminism promotion, there are increasing female associations of SECT in which females can communicate and share personal experiences as well as seek cooperative partners.

> I found the feminist society helpful. Women may encounter the similar problem while working and managing their career in the field of technology. A female association can offer great opportunities to share and to talk about it. We need the female engineer society. I believe it can keep more females in engineering. (Chenwei, 38 years old, Associate Professor, Electrical Engineering)

Above all, in contemporary society technology females are offered some societal support such as gender equality, female-relevant technology, female recruitment, and other privileges made available by gender programs. In this aspect, however, they have to overcome plenty of threats from the still dominant masculine culture, including an unfriendly workplace, shortages of female networks, and the constant dilemma of the demands between family and career.

As a whole, the advantageous forces and obstructions for women doing technology are summarized in Fig. (13.1). It is a so-called vase-breaking theory for technology females that I have constructed. It shows that the female can break the gendered technology frame by establishing the advantageous forces (inside the vase) and overcoming the disadvantageous forces (outside the vase). In this case, women can accomplish big businesses such as doing technology or doing science distinguishably. In this way, the vase woman stigma can be broken

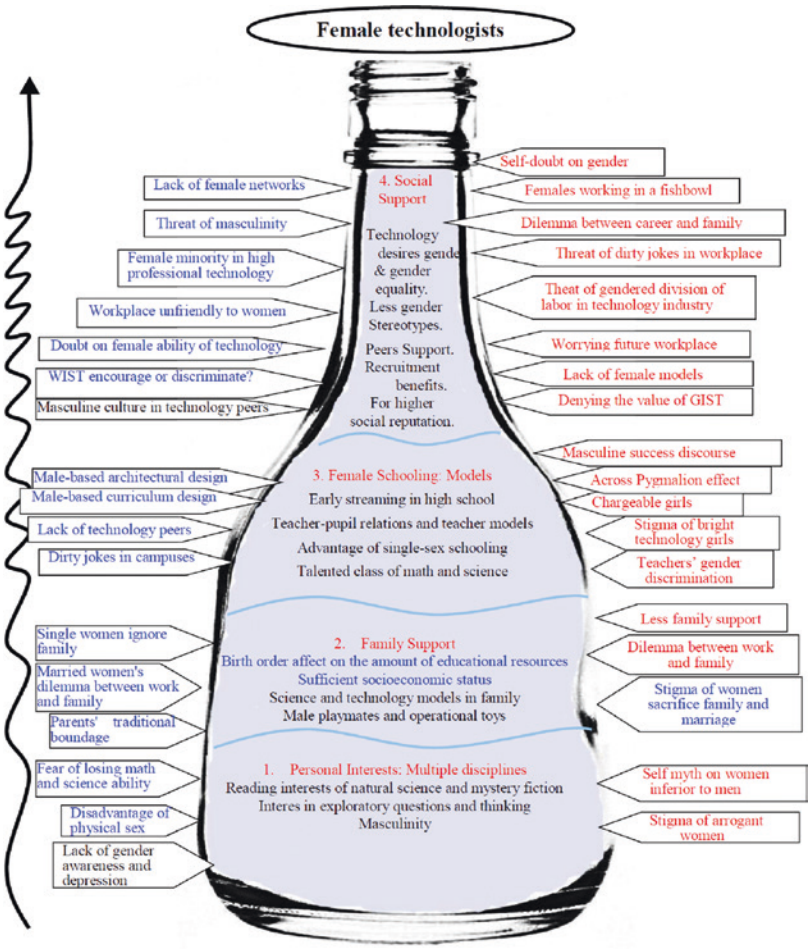

Fig. 13.1 Vase-breaking theory

and promote a move away from historical gender inequality. Also, through the vase-breaking theory, the masculine ideology need no longer dominate the technological fields through the positive gender discourses.

Conclusion

Is the technology-gender boundary still fixed or mobile and flexible? My first augmentation is that it is still in place. Female technologists across three generations still adore masculinity without involving a resistance against patriarchy. In their interviews, they were quite independent and positive about the potentials in technology in terms of their own selves, family, and school aspects, yet they became increasingly dependent and impotent in a technology social space after working in "man's land." Most female technologists developed their networks in STEM depending on their husbands, teachers, and colleagues (all of whom are males). The social capital they represent is the key to succeed in SECT that is still a male and masculine institute as Phipps (2008) has maintained.

Yet my second argument is this social space is already mobile. For the younger generation currently at university, masculinity no longer fully penetrates the technological fields through space domination and its authority structure. However, female students are still under the protection of an educational umbrella. They might not experience the social exclusion by gender in many aspects, especially in academic seminars or workforce, where males best perform their masculinity. A gender formation is being allowed to be redefined that breaks the dualism of men/women and femininity/masculinity (Berila 2011).

In conclusion, a gendered structure reproduces a gender ideology in which males are superior to women in technology fields as well as in the wider society. Gender inequality in Taiwan is still in place but has improved over the years within universities with the *Gender Equality Education Act*. Compared to the older generation, this younger generation is more fully included in technology, but they don't feel the demand of "performing masculinity" as males. In short, elite girls have broken the gender boundary in technology thanks to their personal interest, family support, and school empowerment from which they have gained power in the field of technology. Gender mobility is seen in the elite girls who have survived in the social structure of a loosened gender boundary.

Femininity is more welcome in the social world of elite girls than that of female technologists. A vase-breaking theory is based on those female technologists who can appropriate both the supporting and resisting forces from individuality, family, schooling, and society.

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CHAPTER 14

The Glass Ceiling Facing Women Leaders in Thai Higher Education

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The 21st Century will be the century of girls and women.
(Michelle Bachelet, UN Women Executive Director 2011, Online)

Introduction

The past decade has witnessed concerted efforts to promote gender equality at all levels of education. The Dakar Framework for Action and the Millennium Development Goals (MDGs) of the United Nations have set the goal of eradicating gender disparities in primary and secondary education by 2005 and to achieve gender equality by 2015 (UNESCO 2010). There have also been calls for the promotion of women in leadership and management (e.g., DAAD 2017; Times Higher Education 2015). The Beijing Declaration (1995) and Millennium Goals (2000), for example, have given attention to the social justice dimension of the underrepresentation of women at policy-making levels of education systems and in leadership positions of schools and higher education institutions (HEIs) (Sperandio 2010).

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UNESCO's database on gender equality in education reveals an increase in female participation at all levels of education across the regions, yet the gross enrollment ratio of female participation differs considerably depending on the level (UNESCO 2016). For example, in the Asia-Pacific Region as a whole, the gross enrollment ratio of female falls drastically from 109% at the primary level to 48% at the secondary level and to a mere 9% at the tertiary level. The Republic of Korea, Japan, and the Pacific Islands have the best female gross tertiary enrollment ratios, followed by Thailand, the People's Republic of China, and the Philippines (UNESCO 2010).

Despite global trends in women's participation in higher education and progress of women in achieving parity in teaching (UNESCO 2002), globally, women also continue to be underrepresented in senior management in higher education institutions (Mahapatra and Gupta 2013; Mitroussi and Mitroussi 2009; Commonwealth Secretariat 1994). Part of the problem may be that career paths of women in management in general are quite complex with a variety of obstacles. On the one hand, an interest in accessing leadership positions is determined by one's own orientation regarding work and career (Chan et al. 2016; Hoyle 1969; Tropp 1959). On the other, one's knowledge of educational leadership and opportunities to gain practical experience of it can be contextual factors that hinder women from taking on leadership roles in higher education. Cultural norms can also make it difficult for women to take up leadership alongside their other roles in society, which combined with the structure of organizations contribute to holding women back from leadership positions (Chan et al. 2016; McLay 2008). Studies have also found that women in general suffer from discriminatory practices when promotions to senior positions are considered (Mahapatra and Gupta 2013; Mathipa and Tsoka 2001; Greyvenstein 2000). Thus, eliminating the gender gap in higher education management is not an easy task. In this regard, Hammoud (1993, 31) has pointed out that, "the position of women in higher education management cannot be treated in isolation from the general status of women in society, and from the general aims of economic and social development."

The aim of this chapter is to investigate the glass ceiling for women's leadership in Thai higher education and highlight some of the issues pertaining to the paradox whereby women are well represented in teaching roles, yet underrepresented in leadership positions. The chapter argues that although opportunities for Thai women in higher education and

leadership appear to have increased, they face a variety of impediments that prevent them from becoming part of the elite leadership of an organization. The chapter begins by investigating the changing roles of women in Thai society. It then discusses senior management structures within Thai HEIs and gender and leadership styles for effective management in Thai higher education. The heart of the chapter is an analysis of the challenges Thai women face in taking on higher education leadership roles.

The Changing Role of Women in Thai Society

Although there has been a slight decline in the percentage of the world population that is female, Thailand has seen a slight increase of female population from 49.9% in 1960 to 51.2% in 2015 (World Bank, n.d.). Statistics indicate that women not only outnumber men, but they also have longer lifespans than Thai men on average. This evidence suggests that women have an opportunity to participate in social developments, including education, and yet women's social status remains lower than that of men (Potjana 2016). Women's participation in teaching in higher education is also higher than that of men (Office of the Educational Council 2014). However, although there are more women in academia, it is more common for men to be in high-ranking positions in Thailand's HEIs.

According to Thai tradition, women and men hold different statuses and roles in society. Traditionally, women are supposed to follow men who are the leaders of their families, as illustrated by the expression: "Men are the front legs of an elephant, women are the hind legs of an elephant," which is still heard in Thailand. This expression defines the main role of Thai women as supporting men behind the scenes and being a productive member of the Thai economy. Somewhat paradoxically, despite their lower status and lack of legal rights in many areas, in practice, women have played and continue to play, significant roles throughout Thai society. This role has to be understood within the context of a class system that still pervades.

Before 1932, Thailand had a feudal social structure, comprised mainly of two classes: the noble class or upper class, which is called *Moon Nai,* and commoner or lower class, which is called *Prai.* Women from the noble or upper class are constrained by specific family and social expectations that dictate their role as restricted to domestic duties and care for their husband and families (Adulyapichet 2001). Since commoner Thai men were forced to perform *cor'vee* labor for a monthly period,

the domestic and economic roles in Thai society have been fulfilled by women from lower classes who as a result have enjoyed a certain amount of freedom and power in decision-making. On the other hand, all women, regardless of class, are subject to Buddhist patriarchy and hierarchical systems, within which the status of Thai women has not changed substantially (Tantiwiramanond 1997).

Prior to the reign of King Rama V, education in Thailand was provided by monks mostly to boys and women in the upper class. Women's education was not encouraged because of the fear that women would come into contact with men, which was against social values and norms at that time (Moonsap 2012). The important change in female education came about during King Rama V's reign with the establishment of the first school for girls in 1874 (Suksod-Barger 2014). During his reign, formal schooling was also introduced to commoners with the purpose of laying the foundations for modernization. New laws to increase social and educational opportunities for Thai women as part of social and economic development for modernization were also promulgated. King Rama VI, who was educated in Western countries, followed his father's modernization policies and continued to improve the status of women, which was the true beginning of female emancipation in Thailand (Mee-Udon and Itarat 2005).

During the past decades, the roles and status of Thai women have changed significantly. Socioeconomic development in Thailand has led to the need for a larger labor force, and this has opened up career opportunities for women. Recognizing the important contribution of women in Thailand's socioeconomic development, both Thai government and nongovernmental organizations have put forth many policies and programs to address gender inequalities. As a result, Thai women now have better education, career advancement, and increased income. Evidence shows that gender equality in education has improved. As of 2015, the gender parity index in Thai higher education is 1.41, having increased from 1.31 in 2012 (World Bank, n.d.; Office of the Educational Council 2014), which indicates that a growing number of women are enrolling in tertiary education.

The role of women in Thailand's economy can be determined by the orientation of their studies. As indicated below, UNESCO statistics show that as of 2015, females significantly outnumbered males in business, administration, and law and slightly outnumbered males in education, social sciences, arts and humanities, health and services. By contrast,

Table 14.1 Fields of study by gender in Thailand

Field of study	*Female (%)*	*Male (%)*	*Both (%)*	*Female (%)*
Education	9.1	5.1	7.4	69.8
Arts and humanities	8.2	6.1	7.3	63.4
Social science, journalism, and information	17.2	15	16.3	59.8
Business, administration, and laws	27.6	11	20.4	76.5
Natural science, statistics, and math	5.3	3.2	N/A	68.1
ICT	4	5	N/A	50.6
Engineering and construction	4.8	34.9	N/A	15.1
Agriculture, forestry and veterinarian	2.8	3.4	N/A	51
Health	5.7	2.2	N/A	76.9
Service	3.6	1.8	N/A	72.2
Unspecified	11.7	12.3	N/A	N/A

engineering, ICT, and agricultural studies continue to be dominated by males (Table 14.1).

Kanchana Tangchonlatip et al.'s study of gender-based occupational segregation in Bangkok states that "demand for female workers, especially young workers, was mainly due to their perceived desirable characteristics, which included being docile, nonaggressive, and being predisposed to factory work, on account of their nimble fingers and good eyesight" (2006, 54). Gender stereotypes in terms of specific "female" qualities and characteristics influence both occupation and career paths within women's chosen fields, including promotion to leadership and management roles.

Women's Status in Senior Management in Thai Higher Education

Despite the increase in women participating in higher education in the past few decades and ample evidence that Thai women are likely to play an increasingly important role in the future socioeconomic development of the country, women are not accessing the higher levels in public institutions.

Figure 14.1 shows that compared to other countries in the Asia-Pacific, Thailand has one of the highest proportions of female graduates at the tertiary level. The increase of female graduates in Thailand from 54.36% in 2014 to the level of 56.39% in 2015 is almost identical to

that of New Zealand at 56.42%. In addition, since 2002 the number of Thai females with doctoral degrees or the equivalent was over 50% and in 2015, outnumbered many other countries in the Asia-Pacific Region.

This comparatively high supply of women graduates does not seem to enter into career advancement and opportunities in senior leadership positions, however. As revealed in Fig. 14.2, Thailand has a growing supply of females in the academic labor market.

Figure 14.3 illustrates this gender disparity in the context of higher education. Although women lecturers and assistant professors outnumbered men (53.68 and 52.33%, respectively), slightly less than half of women were appointed associate professors (46.63%) and significantly less went on to become professors (31.86%). However, there has been a slight improvement in 2015 with an increase in the number of women appointed associate professor and professor, yet still much below that of males in the same categories.

The situation is worse in terms of university leadership positions. A web search analysis of 109 Thai universities found that as of 2016, there were 24 female university presidents (22.02%), 673 vice presidents (33.28%), 572 assistant presidents (37.24%), and 986 Deans (36.41%). It is interesting to note that there are more female university presidents in private universities as compared to other university categories (Fig. 14.4). This might be because private universities in Thailand are mostly proprietary and run by family members. High-ranking positions of private universities therefore are reserved for family members which may be less gender-biased.

Figure 14.5 summarizes a web search analysis of 114 Thai universities with regard to gender distributions according to discipline. While more female Deans hold positions in social science fields (63.89), especially

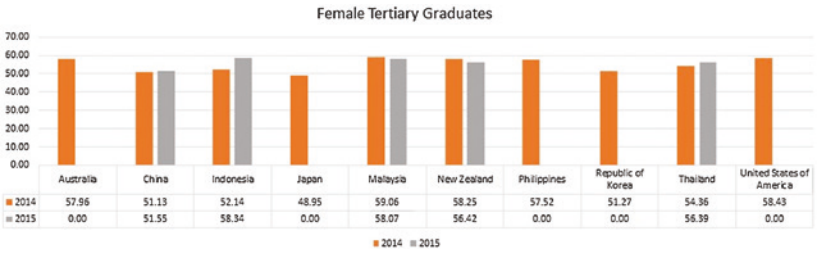


Fig. 14.1 Female tertiary graduates (*Source* UNESCO 2016)

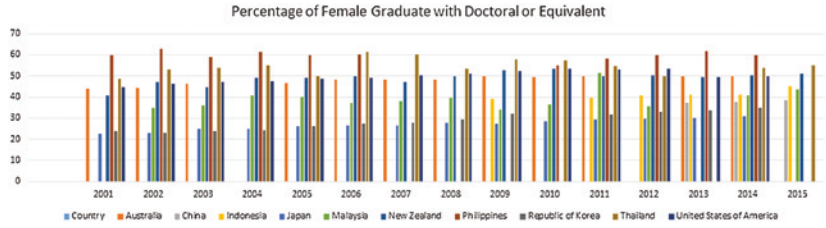


Fig. 14.2 Percentage of female graduates with doctoral degree equivalent (*Source* UNESCO 2016)

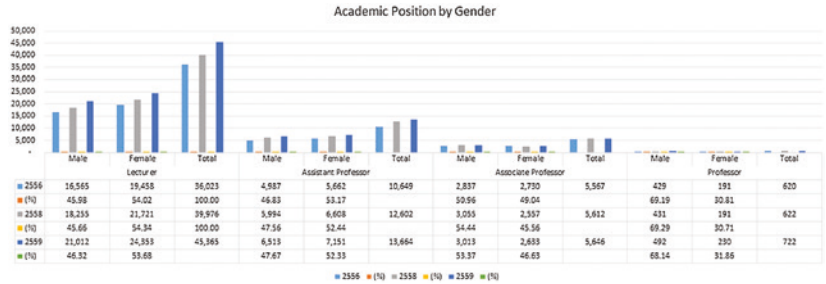
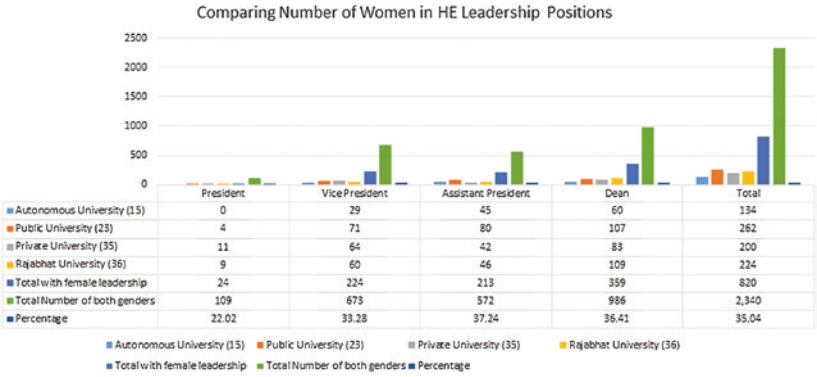


Fig. 14.3 Academic position by gender (*Source* Office of the Educational Council 2014)

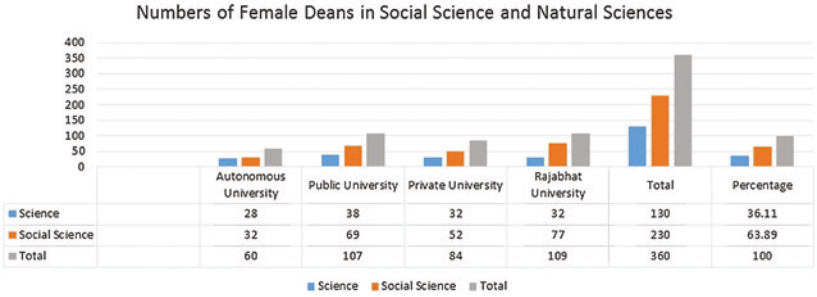
in Rajabhat Universities,[1] public universities, and private universities, respectively, there were more male Deans in the Science fields. The evidence has pointed to the gender-based occupation bias that exists in Thai higher education leadership and that more input of female academics in the social sciences may contribute to more opportunity in access to leadership positions.

These findings are presented to illustrate that while Thai women are increasingly upwardly mobile, particularly in higher education, and are playing more visible roles in the socioeconomic structure of the country, they still cannot crack the glass ceiling of higher institutional advancement. Despite the significant number of female doctoral graduates and academics, academic promotion for women seems to stop once they become associate professors. Women also have limited access to university leadership, and their presence in certain traditionally male-dominated



	President	Vice President	Assistant President	Dean	Total
Autonomous University (15)	0	29	45	60	134
Public University (23)	4	71	80	107	262
Private University (35)	11	64	42	83	200
Rajabhat University (36)	9	60	46	109	224
Total with female leadership	24	224	213	359	820
Total Number of both genders	109	673	572	986	2,340
Percentage	22.02	33.28	37.24	36.41	35.04

Fig. 14.4 Comparing the number of women in HE leadership positions



	Autonomous University	Public University	Private University	Rajabhat University	Total	Percentage
Science	28	38	32	32	130	36.11
Social Science	32	69	52	77	230	63.89
Total	60	107	84	109	360	100

Fig. 14.5 Numbers of female deans in social science and natural sciences

academic disciplines continues to be limited. Therefore, it seems that an equal supply of female academics does not necessarily result in gender equality in terms of leadership in higher education.

Gender and Leadership Styles for Effective Management in Higher Education

One explanation given for the underrepresentation of women among the elite leaders of higher education is the undervaluation of women's effectiveness as leaders (Paustian-Underdahl et al. 2014). Several theoretical perspectives support this explanation, for example, "role congruity theory" (RCT) (Eagly and Karau 2002), and "lack of fit theory" (Heilman

2001). Discourses about gender and leadership draw on the notion of gendering and de-gendering. For those who support the gendered leadership perspective, differences exist in the leadership styles of men and women. Eagly and Johnson (1990) contend that women tend to adopt a more democratic or participative style and a less autocratic or directive style than men. According to Qureshia et al. (2011), female leaders tend to adopt a participative leadership style, while men attune their leadership styles to fit each context. Within this body of literature, some authors still argue that men are more effective leaders than women (Caroll 2006). On the other hand, there is also a growing body of research suggesting that far from being less effective, "feminine" type leadership is what modern organizations need (Williams 2012; Conlin 2003).

In contrast to the gendered leadership perspective, many social scientists maintain that there is no reliable evidence to support the idea that men and women lead differently (Eagly and Johnson 1990). Instead, the very notion of gendered leadership is argued to be socially constructed (Brescoll 2011; Koenig et al. 2011; Brescoll and Uhlmann 2008). Drawing on this perspective, Katuna (2014) argues for "degendered" leadership on the basis that there should not be rigid categories that frame how a person should lead, since leaders come from many different backgrounds.

Beyond the gender debate, researchers agree that effective leaders have crucial competencies, such as striving for success, creativity, and emotional intelligence (McClellan 1980; Matthew 2009). The Global Leadership Organization Behavior Effectiveness research project indicates that Transformational Leadership is established as a root for effective leadership around the world (Houese et al. 2004). Cultural differences and traditions, however, play a significant role in how effective leadership is perceived, since leadership is about socialization and influencing followers (Baczek 2013).

Thailand is a patriarchal society in which the "male" directive style of leadership is deeply rooted. Poh Khun Ramkhamhaeng, King of Sukhothai (A.D. 1247–1298), was highly valued for his paternalistic leadership style as reflected in a famous quote "Believe in leader, nation will be safe," by Field Marshal P. Piboonsongkram, the 3rd prime minister of Thailand (A.D. 1948–1957). Thailand's third prime minister also adopted this paternalistic style during his premiership and successfully led the nation to political reform (Jamsai 1998). During this period, a certain stereotype of femininity was promoted. Thai women were

referred to as the "National Flower," were expected to be polite, neatly dressed, good mothers, and good wives. Thai women are still often viewed as being emotional, interpersonal oriented, and non-task oriented (Rattanasaenwong, n.d.), not attributes that are generally seen as favorable for effective leadership (Eagly and Johnson 1990).

Although in Thai society, gender-role expectations have a strong influence on ideas about leadership, empirical studies conducted in business contexts in Thailand either find no differences in the effectiveness of female and male leaders (see, e.g., Meemoei et al. 2011) or are inconclusive with regard to the extent to which gender plays a role in leadership effectiveness. However, differences have been found in the satisfaction level of employees on the perceived personalities of male and female supervisors. In Lasingwong's study (2011), employees had a better attitude toward male supervisors and their leadership styles, perceiving them as slightly more and positively correlated with the tendency to work toward the future of employees. In another study, employees were found to be more satisfied with their male leaders in terms of personal traits, leadership skills, interpersonal relationships, empowerment, planning, organizing, human relations, leading, and controlling (Meemoei et al. 2011).

Other studies on women and leadership in the educational context of Thailand, however, found women to be effective leaders (Tabtimsri 2014). Poolswat's study (2014) of the most desirable leadership characteristics among private university administrators found the ability to communicate was rated most highly, followed by the ability to solve problems and good governance. The qualities ranked as least important were being determined to accomplish the task and self-confidence, qualities that tend to be associated with masculine leadership. A study by Rattanasaenwong (n.d.) revealed that: Female administrators of the public and private universities in Bangkok Metropolitan have a high level of leadership and that the factors affecting female administrators' leadership are: (1) achievement motive, (2) leadership and empowerment, (3) participation, (4) status and roles of females, and (5) leadership and vision.

While there is no evidence of any relationship between gender and leadership effectiveness, it is clear that gender roles and gendered expectations about how men and women should behave are still prevalent in modern Thai society, which hinders the opportunities for women to break the glass ceiling.

Challenges of Women in Higher Education Leadership

A review of the literature indicates that women's career advancement is influenced by a multitude of factors (Yukongdi and Rowley 2009), and the analysis requires a multiple-level framework. These factors are intertwined and interact with one another and simultaneously have an impact on women's career transitions and progress. Hence, these factors cannot be considered in isolation as they, in turn, affect one another (Fagenson 1990). More importantly, barriers to women becoming leaders are very much contextualized (Chan et al. 2016). Similarly, many factors contribute to the glass ceiling for women in Thai higher education, factors which interplay in multiple layers and which are culturally and contextually bounded. To understand the underrepresentation of women in higher education leadership and the challenges Thai women leaders face, three models are used: the meritocracy model with emphasis on psychological orientation; the organizational or discrimination model with emphasis on the education system; and the social model with emphasis on cultural and social norms (Growe and Montgomery 2000).

Through the meritocracy model or individual perspective model, women are viewed as the cause of their underrepresentation in leadership (e.g., Cheaupalakit 2014; Bowles 2012; Coleman 2007). From this perspective, it is individual lack of motivation and achievement, lack of self-confidence, and simply not applying for jobs that explain the lack of female leaders at the highest levels. As revealed in the context of Thailand, women make different choices in terms of their discipline. This implies that Thai women incline to study education, social sciences, and business administration based on their own job orientation. These disciplines are framed more as human relationship-oriented roles. Women tend to enjoy communicating and building relationships with people rather than to work with machines. Since the motivation to achieve and confidence are key factors of women leadership (Rattanasaenwong, n.d.), the decrease in women academics through the ranks of seniority implies that women do not aspire to career advancement since academic promotion is not in competition with others but based on individual effort.

Although the individual perspective model appears to explain to some extent the barriers Thai women face, it disregards the role of social norms and values. Research shows that the norms and values of Thai society play a major part in shaping the views of what roles women should play and how. From this perspective, social norms and

gender-role expectations prevent Thai women from having psychological orientations conducive to motivation, self-confidence, and aspiration for leadership positions. Gender-role expectations compel Thai women to put family and childcare responsibilities ahead of their career (Sodha 2012). Thai women feel the sense of gender-role responsibilities bestowed upon them. On top of that, although Thai women perceive gender inequality in academic careers, they tend to disregard it as they view gender roles as a mechanism to fulfill different social functions in society. Norms and values framing gender-role expectations, therefore, have an impact on women's motivation for leadership.

From the organizational or discrimination model perspective, gender inequality is significantly prevalent in Thailand's higher education institutions. For example, Sodha (2012) points out that Thai women in science remain under threat at different levels, including the constraints of a national scientific policy that focuses on engineering. Thai scientific organizational norms and culture favor men. Since most higher education institutions are male dominant, it is difficult for women to enter a men's world, which has a different culture and forms of social interactions. For example, while Thai men tend to enjoy late-night functions with liquor involved, women tend to be disadvantaged to attend these social functions due to family obligations. Sodha (2012) has even suggested that for women to become leaders, they should adopt the norms of male culture. There is also a gender gap in terms of rewards for female Thai academics, with unequal pay and a clear tendency for women to continue to lag far behind men in promotions to high-ranking positions in all areas: politics, public civil service, and education. The prevalence of very few female leaders in higher education means a lack of good role models and supportive networks for women who aspire to become leaders (e.g., Cheaupalakit 2014). This lack of participation becomes a vicious circle of increasing gender inequality, which in turn contributes to the glass ceiling in higher education

The three gender-based models used to underpin the analysis of women's challenges in higher education leadership illustrate that factors contributing to the glass ceiling for Thai women in educational leadership can be seen as the interplay between individual orientations, social norms and values, and organizational discrimination. Social norms and values, however, are fundamental to all barriers since they define the gender roles and practices of a society. Improvement in levels of female participation in higher education, recruitment, and employment will not

contribute to women's career advancement and leadership if social norms and values remain unchanged.

Recommendation and Conclusion

It is widely argued that women will play a significant role in the twenty-first century. The growing number of women participating in higher education in Thailand is a promising sign. However, as we have seen, the glass ceiling remains with rates of participation decreasing in higher levels of management and leadership. Women are still faced with various threats and challenges in order for them to rise up to the top of the employment structure. UNESCO (2002) reckons that the problem of women's participation is not one that can be resolved by merely addressing issues pertaining to recruitment, employment, and working conditions of women. The long-term solution must also look at the supply of women graduates and in particular the supply of women postgraduate students who form the pool from which women enter the academic labor market.

In terms of the three perspectives focused on the underrepresentation of women, Thai female academics need to develop their own self-confidence and motivation and raise their professional status through obtaining higher qualifications, forming networks and collaborations. Being single can be an advantage, but support from family and colleagues can also be a resource. However, whatever strategies Thai female academics may devise to survive and advance in their careers, the success of such attempts often depends on structural norms, which generate, or fail to, the opportunities for promotion (Sodha 2012). It may be necessary to put in place institutional and social mechanisms that address the glass ceiling. As Manfredi (2015) has argued, "the sector would do well to consider setting a target for the proportion of women heading universities." She goes on to say that specific policies targeting the promotion of women in higher education such as positive action in recruitment and, in a tie-break situation, giving preference to candidates from the underrepresented gender, may be needed. At the broader social level, policy intervention may be required in order to change the fixed social norms that contribute to gender equality in Thai higher education.

There is ample evidence that the benefits of women's participation in public life extend far beyond the individual to families, communities, and nations. Michelle Bachelet has stressed the key roles of education in

building responsible societies and called for boys and men to take part in the "social, economic, and political revolution for gender equality and women's empowerment" (UN Women 2011). In this respect, increasing women's representation in Thai higher education leadership must be promoted in order to ensure opportunities for women to play significant roles in the twenty-first century and to foster gender equality, a key determinant of social justice.

Note

1. A Rajabhat University is a university that was previously recognized as a Teacher College but has been elevated to the status of a regional university. Disciplines offered by a Rajabhat University are mostly education, social sciences, and humanities.

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CHAPTER 15

Conclusion

Deane E. Neubauer and Surinderpal Kaur

The selections in this volume suggest an extended pattern of quite similar gender relations throughout the countries chosen to exemplify Asia Pacific Higher Education. In China, Hong Kong, Japan, Korea, Taiwan, India, Malaysia, and Thailand, we observe a similar, if somewhat differentiated, pattern of societies that have historically been characterized by strong male domination moving into a more complexly differentiated pattern of gender relations. As indicated by the World Economic Forum-originated data presented in Chapter 3, one can rank this particular sample by using a variety of measures. Viewed in terms of their scores on differentiated global indicators, they rank top to bottom in various orders. (Taiwan and Hong Kong are not included within this sample.) Taken at the most macro level, that used to compile the Gender Gap Index, the order is: Thailand, China, Japan, India, Korea, Malaysia. Yet, when one examines the higher education sector in gender terms, overall the success rate is relatively much higher in global terms…leading to the conclusion

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that viewing higher education participation in gender terms, as much or more relative success has been achieved in this arena than overall.

Yet…and this is the overall qualitative burden of these chapters…as one moves focus from participation to academic employment within the sector to seniority and the hierarchy of administrative deployment, one finds a very similar pattern of persisting male domination. Women faculty can look forward to spending "more time in rank" than their male counterparts in terms of advancement, and when they are called into administrative positions, it tends to be at lower decision-making levels and with an overall deficit present at the full professorship and senior executive levels. In part, this is the result of "cohort politics" as prevalent in many countries outside this sample of Asian countries as within it, as the comparison with Australia indicates. Other countries within the sample, India being the dominant case in point, represent circumstances that might be viewed in part as the persistent idiosyncratic features of such a system, namely not only the issue of seeking realistic employment of equality norms and practices, but for those of scheduled classes as well.

From a macro point of view, these country-focused chapters play out many of the themes presented in the introductory chapters. Among these, perhaps the most salient is the persistent distribution across academic fields, marking STEM and in some cases agricultural engagement, as arenas in which women continue to be under-represented on the whole, and in some cases, such as Australia, despite specific governmental efforts to develop programs in ways intended to render them both more attractive and available to women. And, again, it is instructive to note the differences within the sample countries where changing patterns may be developing. In this regard, we note the overall movement of women into medicine and health science related fields, for instance India and Malaysia, to complement their overall historical representation in humanities and social sciences including education.

Also evident in these chapters are suggestions of how these countries seem to titrate gender initiatives within a broader context of responding to changes within the overall character of globalization. These have taken place seemingly in precisely the envelope of time between the occasion of the initial meeting that gave rise to the subject and contents of this volume (October 2016), and to a variety of global events, most specifically Brexit in the UK and the election of Donald Trump in the USA, coupled with other critical elections in Europe and in other settings. All of these appear to have decidedly affected the previously dominant "trajectory"

of globalization by initiating a fundamental "turn" that in one way or another privileges national politics and identity. Many have interpreted such moves politically as a decidedly "right" turn, pointing to both the election of politically conservative leaders and/or challenges to existing leaders from the political right throughout the globe. These have occurred within the already extant moves in higher education into neoliberal shapes over the past two decades including in most of the countries in our sample (see especially, Chapters 2, 5, and 7). Events since 2016, however, surely represented by the American President's recent challenges to the free trade regime undergirding of that which had come to be accepted as "contemporary globalization" and which has created a revised macro-climate in which the whole of international higher education will be affected in some regards stand as important challenges to the previously accepted notion of a global order.

To take just one outstanding example within the USA, the President's so-called travel ban, which has been challenged in the US courts but continues to emerge in one form or another, specifically affects how previously existing policies of academic exchange may be conducted with American universities and a host of other countries. These events have taken place, as is well-known, within a context in which many countries staked large claims (as it were) in the presumption in years prior to 2016–2007 that the dynamics of global higher education (as then both extent and perceived), would continue on their predicted trajectories. Take as just one instance in this regard the publication of the 2017 report of the International Institute for Education (IIE), celebrating the all-time levels of international students recorded in 2017 (International Institute for Education 2018). Compare this with the very recent remarks of Ted Mitchell, a former Undersecretary of Education in the second Obama Administration, and the current president of the American Council on Education, commenting of the 5–4 decision of the US Supreme Court upholding President Trump's travel ban. The decision, he argues, will contribute "to the perception that this country" (…the United States…) "is no longer a welcoming place for study and research by the world's best and brightest international scholars and students" (Education Dive 2018). These views are echoed in the same report by Marian Feldblum, the executive director of the President's Alliance on Higher Education and Immigration.

With these unilateral actions by the USA, coupled as they have been by trade policies that run directly counter to the basic dynamics of

globalization that have been in place over the past three to four decades, a new context is emerging for attempting to assess the nature and direction of higher education policy in general, in which (as we note throughout the foregoing chapters), gender issues are embedded. Facing such issues can and does take us back to earlier discourses seeking to assess some of the overall effects of globalization within which that of gender has been situated for the past several decades. A persistent theme in the study of globalization in its contemporary mode has been the enduring rise of income inequality with the expansion of the global economy, a thematic that has tended to create a covering discourse for the many ways in which gender inequality is discussed and experienced, and particularly within higher education, even as the latter has been perceived as a powerful indicator of progress (see, e.g., Bourguignon 2015). And, to take us back to another persistent theme in the earlier chapters of this volume, in some sense the particular nature of globalization dynamics has been inseparable from both the overall "movement" of higher education as a dimension of equality within Asia and the complex varieties in which it has been situated as a "gender vector" in the region (see, e.g., Buasuwan and Suebnusorn 2016).

All of the foregoing, in our view, puts us in an odd (and possibly unique) space when completing a volume on the issue of gender in higher education at this particular historical moment in time. On the one hand, these chapters appear to us to be a useful and representative sketch of the manner in which gender issues both have been and are being engaged throughout the countries in our sample. On the other hand, judged simply by the events within the overall context of globalization, and in specific those initiated by the USA, and to which there have been predictable if regretful international responses, they generate a new "covering context" to higher education in all these countries that was absent even a short two years ago. The extent to which, for example, countries like Japan, Malaysia, Australia, and Korea will continue to actively seek international students as important contributors—economically, socially, and culturally—to their higher education systems, would on the one hand seem an almost "inevitable" course. However, the extent to which the dynamics of international exchange in higher education—for students, faculty, and across research agendas—will follow a predictable course in what appears to be the emergent "anti-globalization" environment renders the question largely without anything resembling a familiar and predictable context.

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