

Women Power and Economic Growth in Asia

by Simon Ogus with introduction by Yuwa Hedrick-Wong



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Introduction by Yuwa Hedrick-Wong

This report examines women's contribution to economic growth in the context of Asia through a detailed analysis of women's labor force participation in the key economies of East, Southeast and South Asia. While there is a general consensus on the importance of women's contributions to economic growth, the questions of how such contributions are made, how efficiently they are made, and how much they amount to are not easy to answer as they tend to be context dependent.¹ Working with country-specific data and focusing on women's labor force participation in this report, Simon Ogun is able to shed new light on this important subject, while generating business relevant insights that are important for a better understanding of today's growth prospects in Asia.

There is a well observed pattern of how the level of women's labor force participation tends to change in relation to economic development.² In stylized fashion, women's labor force participation is extremely high in an agricultural economy at very low income levels. Paradoxically, it drops as surplus labor is moved from agriculture to manufacturing and industries while the economy climbs steadily to middle income level. Finally, women's labor force participation rises again when the economy becomes "developed" at higher GDP per capita with much better quality of life, and where agricultural employment accounts for only a small percentage of the total, and services become the biggest source of employment.³

In a subsistence economy based on agriculture, the vast majority of adults who are capable of working have to work. This is necessary in order to stay alive, and care for the very young and the very old in the household. Children typically start work as soon as they are physically capable. Women particularly work very hard as they have the twin duties of raising children and taking care of daily household chores while working alongside men in the fields. In many traditional rural communities, women are responsible for collecting firewood and water, chores that could consume a few hours each day. Even in an urban setting, women's options for paid

work are typically limited in a low income economy. Very often they become home-based workers remunerated on the basis of piece-rate, while taking care of the household chores.⁴ From this perspective, women's labor force participation is extremely high, even though it may not be always recognized as "formal employment" since much of women's work is unpaid.

As income rises and new employment opportunities open up in industries and services that come with development and urbanization, women's labor force participation drops due to what is sometimes known as the "substitution effect." With higher household income, women now have a choice: stay home to care for the children and the household, or to go out and seek paid employment in addition to taking on all the child care and household work. To the extent that there is a choice, it is not surprising that most women would not "substitute" child care and household work for paid employment plus child care and household work. In any event, the kind of paid employment available for unskilled and semi-skilled women usually does not pay well, so there is not much of an incentive to entice women to enter the labor force.

As the economy develops and per capita GDP rises, women's employment prospects change, especially when women become better educated, marry later, and have fewer children. Qualified women now can earn higher income in a wide array of opportunities in the urban service sector, pursuing meaningful careers that commensurate with their education levels and aspirations. Household chores become less of a burden with more and better consumer durables and labor saving devices, while affordable social services mean child care can be increasingly "outsourced." So at some point the benefits of entering the labor market outweigh the benefits of staying home, especially for the better educated women. Thus, women's labor force participation rises as a result of the "income effect" overwhelming the "substitution effect."

This stylized presentation of the pattern of changing women's labor force participation is, of course, a simplified model of the reality. The facts on the ground are rarely this neat and tidy. When we examine actual situations closely, it quickly becomes clear that many local conditions impact the model. For instance, women's ed-

education varies greatly between countries at similar levels of income and development due to country-specific socio-cultural factors, traditional beliefs, and government policies. This in turn affects women's labor force participation since the costs and benefits of keeping women out of formal employment change when women are better educated. For example, under communism, China actually achieved a relatively high level of education for women in spite of the fact that it was a low income and predominately agricultural economy. This arguably gave China a head start in the early 1980s with economic opening and reform.

Then there is the issue of the wage gap between men and women. The wage gap can exist at all levels of economic development and income, and is affected by traditional practices as well as institutional and policy factors. The wider the wage gap, the greater is the disincentive for women to participate in the labor force.⁵ But the issues surrounding the wage gap and how it can be closed are complex. Very often similar economic development schemes could lead to dramatically different outcomes. For example, a successful introduction of export-oriented labor intensive manufacturing could narrow the wage gap under certain conditions, but widen it under different conditions. It all has to do with whether employers favor female workers over male workers as a consequence of technology, scale, value-add, the amount of on-the-job training required, and the size and ownership of the firm, etc. There is a lively debate in the research literature on this subject and there are no simple and straight forward answers.⁶ Careful country-specific analysis is needed.

Complexity notwithstanding, there is an urgency to better understand how women's labor force participation can be raised. There are a number of Asian markets that are aging surprisingly fast. Japan is best known for its aging and indeed shrinking population. But so are South Korea, China, Taiwan, Hong Kong, and Thailand. In all these markets, raising the women's labor force participation rate offers the obvious solution to an aging workforce.

More intriguingly, however, the benefit of raising women's labor force participation may go beyond the simple compensation of more women working to offset the aging and/or shrinking labor force. Drawing on ev-

idence from Western Europe, a Goldman Sachs study found that, paradoxically, the socio-economic conditions that are conducive for more women to enter the labor force are also the same ones that encourage women to have more children. These are conditions of affordable and readily available child care services, generous maternity leave and benefits, and little or no wage gap. These conditions encourage women to both work and have children, as opposed to choosing between work or having children. So setting the right policies to raise women's labor force participation may also address the more basic demographic issue of women's declining fertility observed in aging societies.⁷

One thing is absolutely certain—women make a great contribution to economic growth and development. What is often unclear is how much of women's potential contribution is being utilized, and how much is being wasted. A rigorous analysis of the track record of women's labor force participation in Asian economies and how it is affected by country-specific conditions will assist in developing a better understanding of how to more effectively utilize women's potential economic contribution in the region.

Female Labor Force Participation and Economic Growth in Asia

Mao Zedong claimed that “Women hold up half the sky.” But are they afforded the same education and employment prospects as men, and are higher levels of female education and labor market participation commensurate with enhanced economic performance? Economic theory would argue strongly for the latter since an increase in the supply of productive workers should *ceteris paribus* be associated with higher levels of per capita GDP.

East Asia’s post World War II rise was indeed accompanied by moves to almost uniform primary and secondary education for both sexes and in more recent decades, massive expansions of tertiary education participation rates. The ASEAN-Tiger economies, and more recently Vietnam, have been treading similar paths and positive trends are now also emerging from other less-developed ASEAN economies. By contrast, South Asia’s record is not good, with Pakistan a significant laggard.

Furthermore, higher levels of female education have not always translated into enhanced participation rates in the labor force, implying that some countries are passing up significant potential productivity and growth opportunities. In this report we explore trends in East and South Asia’s female education and labor market data series over the past forty years and offer our assessment of who stands to gain the most from improvements in female participation rates.⁸

Education, Productivity, and Women’s Contribution to Economic Growth

Economic growth is a function of both the supply of input factors— land, labor and capital— and the productivity of these factors. It is relatively simple, at least in theory, to produce a growth spurt in a poor economy with a rapidly growing population and a low stock of starting capital.⁹ In comparison, maintaining a growth spurt beyond middle income status has been historically harder and requires institutional changes conducive to sustainably boosting factor productivity.¹⁰

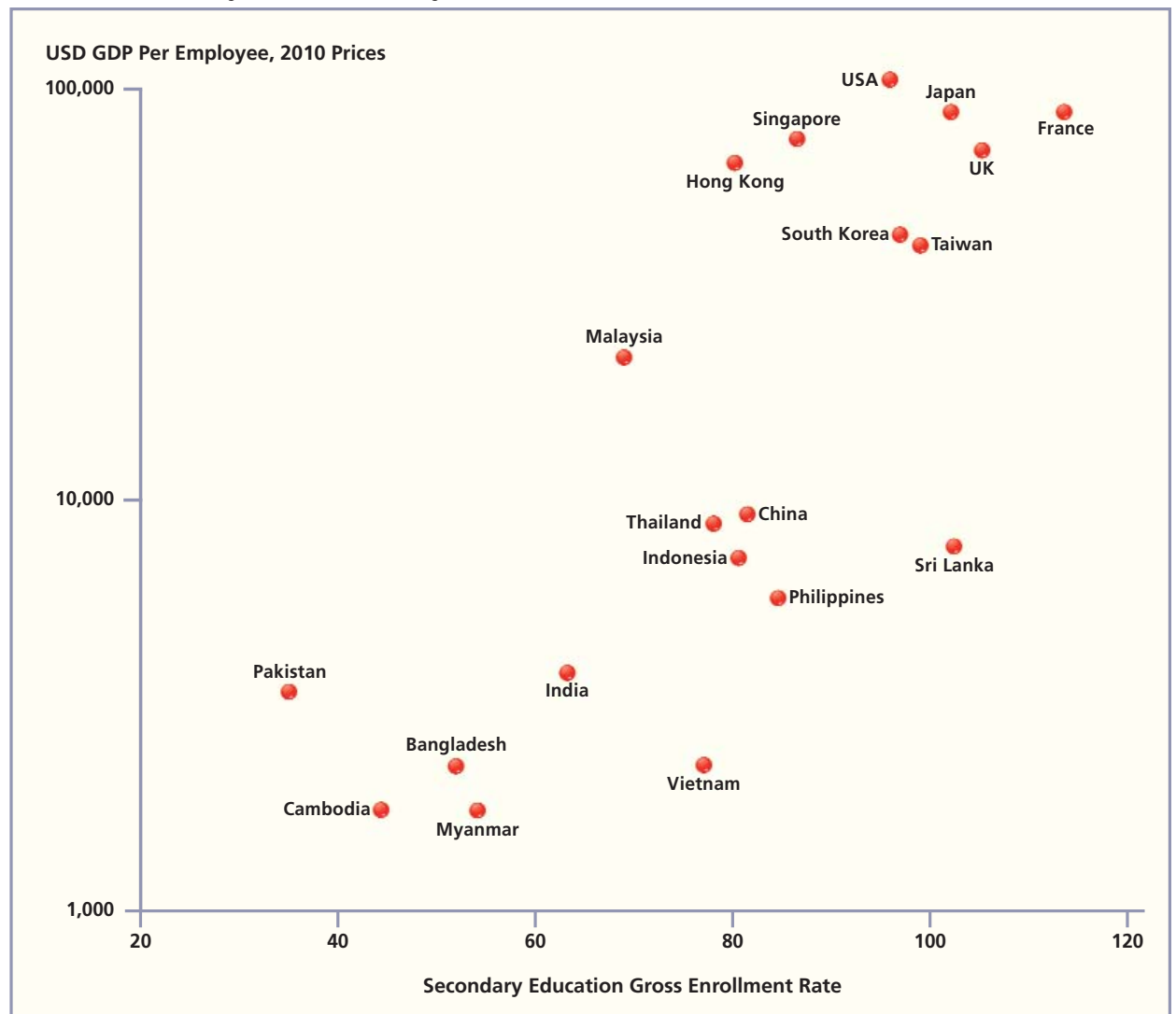
In this paper we restrict our focus to the role of education in boosting labor productivity and, specifically, trends in female education enrollment and labor force participation rates. Our principal findings can be summarized as follows.

First, the evidence seems compelling that increased rates of enrollment in secondary education are strongly related to higher rates of labor productivity. Second, although higher rates of tertiary education enrollment are again positively related to higher productivity outcomes, returns would appear to diminish beyond a certain threshold. Finally, given the demographic challenges that many East Asian economies will face, or are already facing, there seems to be a disappointingly weak relationship between an increasing supply of highly educated females and generally moribund female labor participation rates.

Why should this be so? We could argue that this is likely attributable to economic as much as cultural/chauvinistic explanations, for throughout the world the burden of care for both children and the aged continues to fall primarily on working age women. We would therefore posit that if countries wish to endogenously boost their labor supplies in the face of slowing (or even shrinking) overall working population growth, there is a requirement to promote policies that alleviate the burdens of the principal carers’ cohort.¹¹

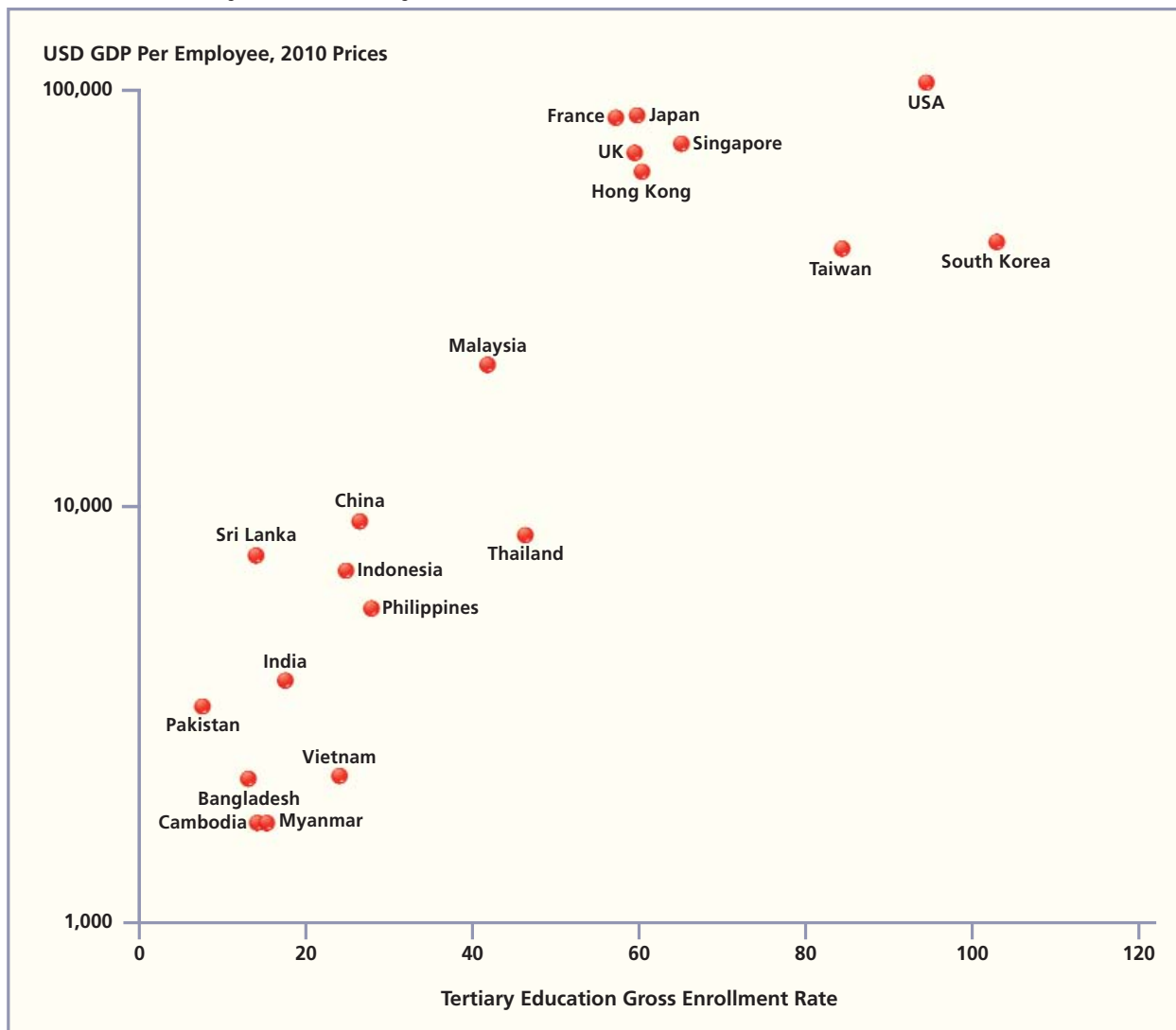
If rapid birth rates alone were the secret to economic prosperity, then Mali, Niger, and Somalia would all be economic powerhouses. Unfortunately, it matters not only how fecund a country is, but how it educates and employs the additional populace. As East Asia has amply demonstrated over the past half century, one of the fastest routes to sustainable income growth is to move surplus labor from the countryside to the factory. However, to achieve this requires stable and predictable macroeconomic and social management, the provision of a modicum of reliable infrastructure, and at least a moderately educated labor force. As Chart 1 shows, there is a clear and positive relationship between rates of secondary education enrollment¹² and output per employee.

Chart 1. Productivity versus Secondary Education Enrollment Rates, Latest Year



As Chart 2 suggests, the relationship continues to hold for tertiary enrollment but it appears that beyond a certain level, the returns to a college degree or equivalent may start to diminish. It is beyond the scope of this paper to speculate in any detail as to why this might be the case. One might want to consider that although there has been a massive expansion in tertiary education opportunities in the developed world, this has not always been accompanied by an expansion in the number of high quality educators or educated. Myriad surveys of employers seem to suggest that there is a growing mismatch between the skills and expectations of those graduating from many tertiary institutions, and the employability requirements of their employers.

Chart 2. Productivity versus Tertiary Enrollment Rates, Latest Year



Finally, despite the very real gains achieved in boosting female education enrollment rates, average participation rates of women in the labor force remain stuck at around half, and lag significantly in many cases, their male equivalents (Charts 3 and 4). In an aging world,

many countries would seem to be underutilizing a major potential source of growth by failing to adequately leverage their rising cohorts of increasingly educated women.

Chart 3. All Country Sample Female Education Enrollment and Labor Participation Rate

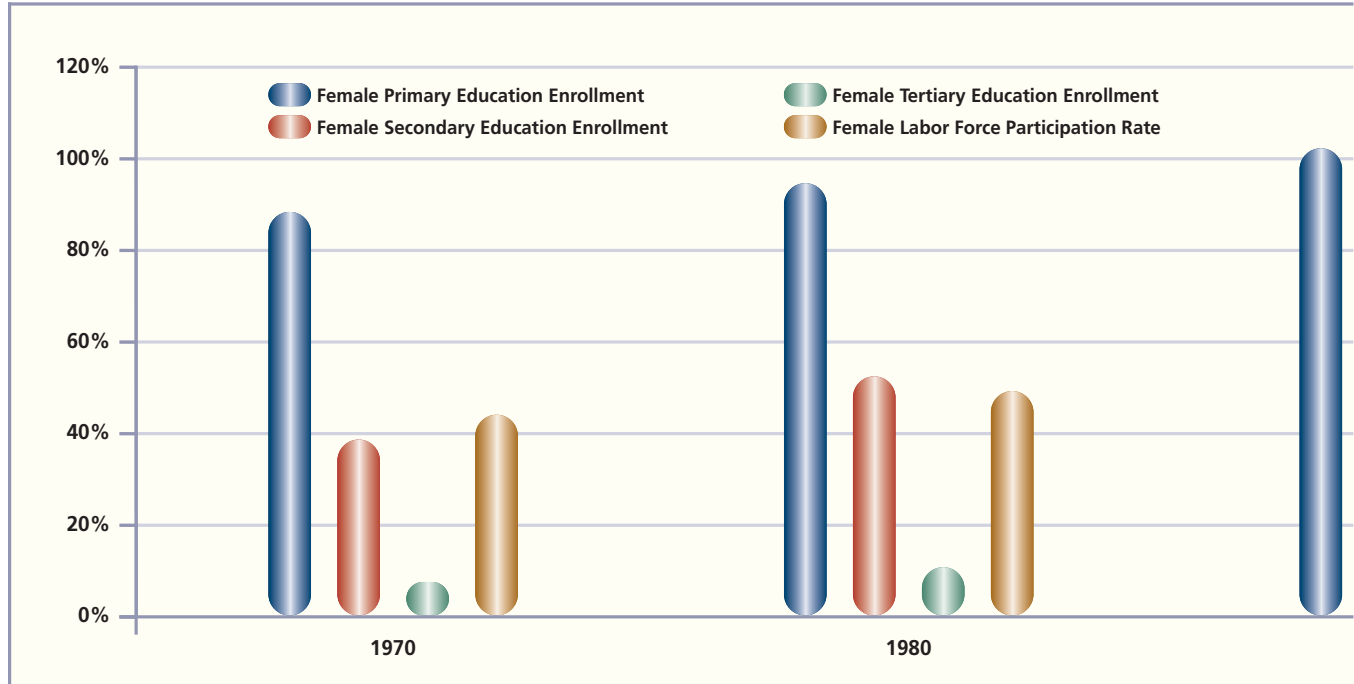
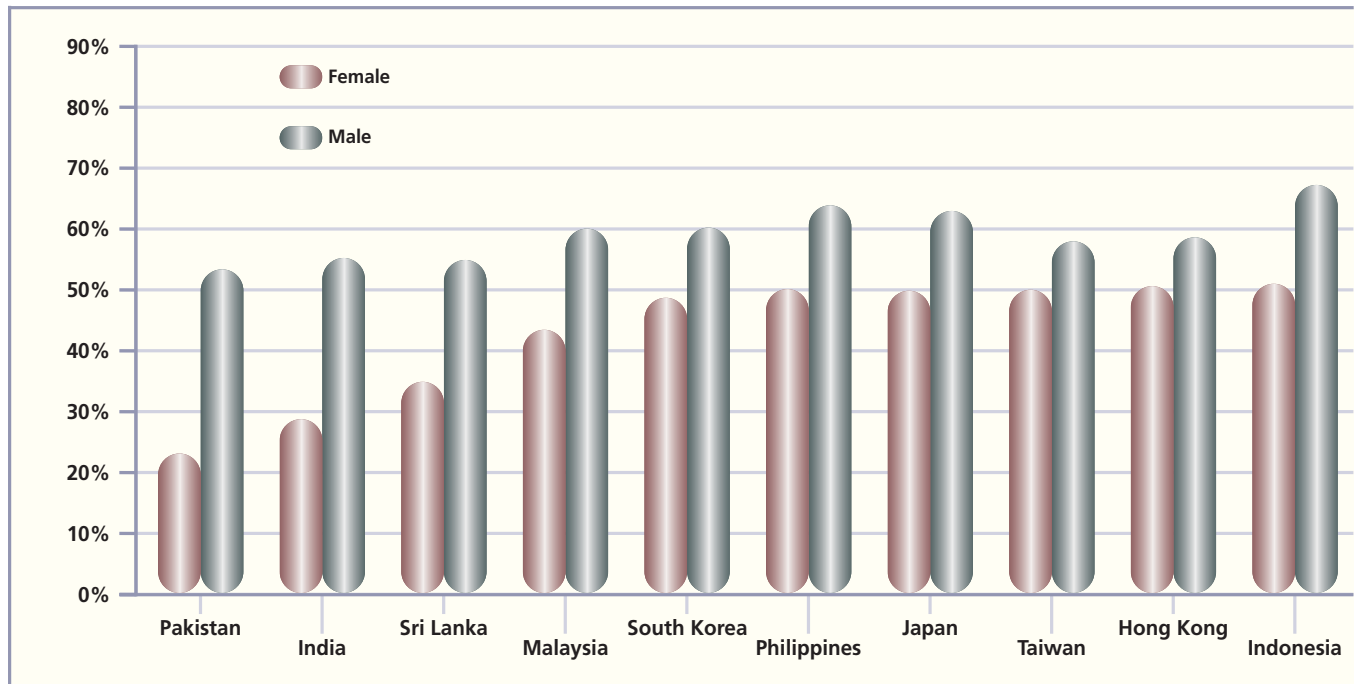
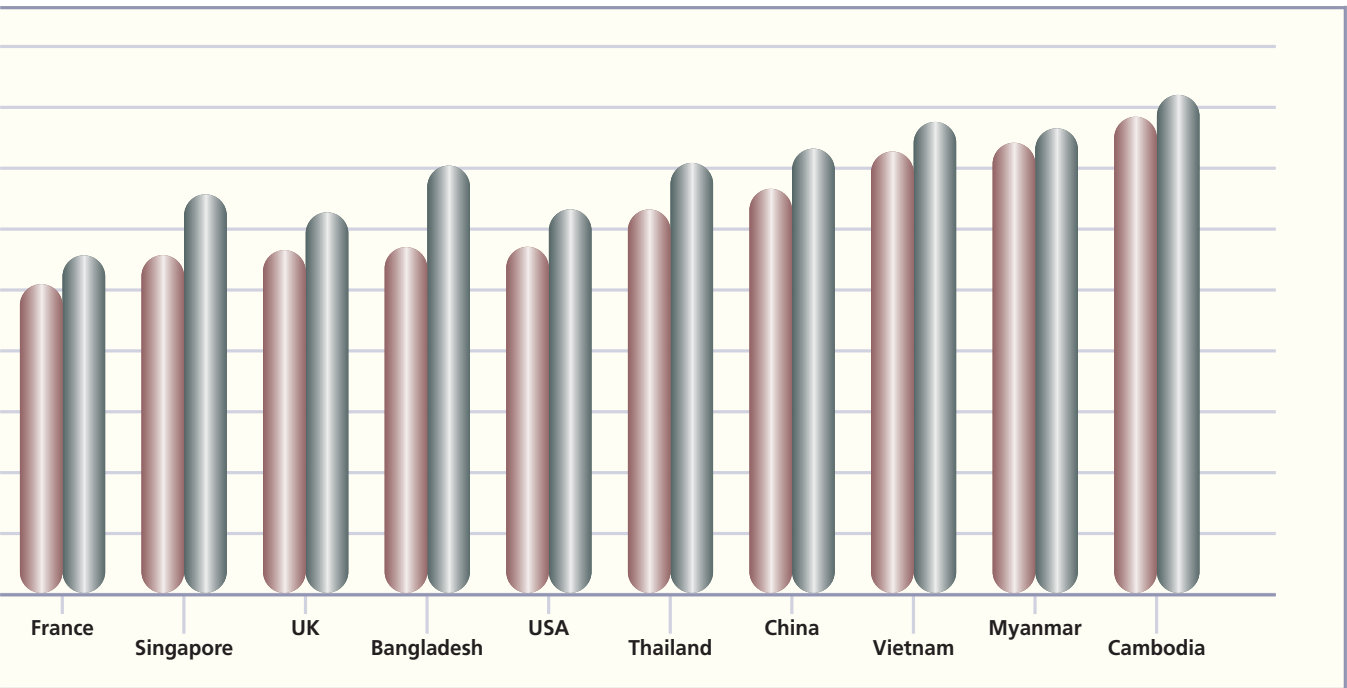
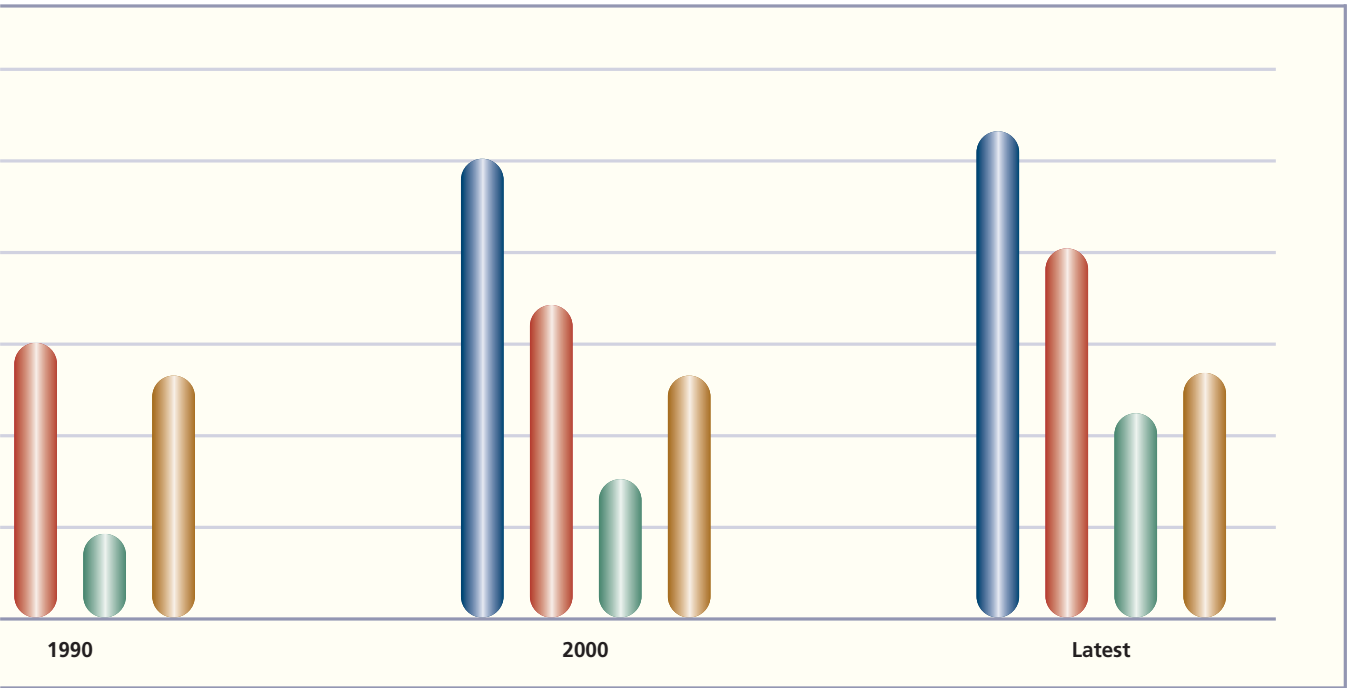


Chart 4. Labor Participation Rates, Latest Year





The Case Study of Japan

Japan provides us with a salient case study. Not only does it report excellent data going back almost a century, but it has also been inordinately successful in raising female education levels and creating very high levels of societal wealth. Yet at the same time, the economy has struggled to grow since the bubble burst in 1990 and the role of women in the workforce remains, some might argue, truncated.

Returning Prime Minister Shinzo Abe has promised to reinvigorate Japan under his “Three Arrows” Agenda for Economic Revival and his deployment of Arrows One and Two, aggressive monetary and fiscal stimulus, have at least succeeded in jolting the stock market higher and the Yen lower. Nevertheless, it is his Third Arrow of structural reform that will arguably make or break Japan, and it is this arrow that has hitherto been barely unsheathed. Prior to July’s Upper House elections, Abe had been (from electoral reasons under-

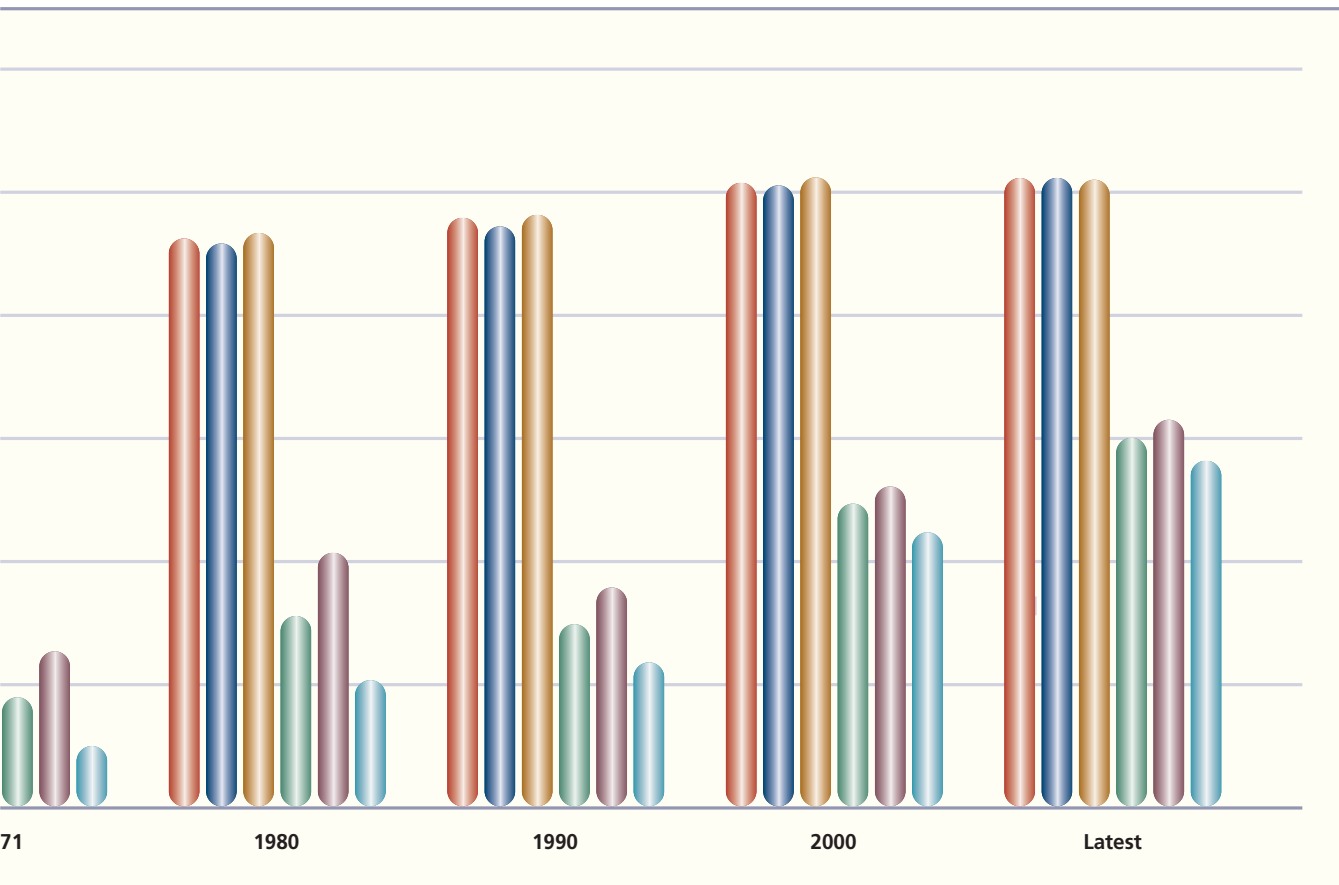
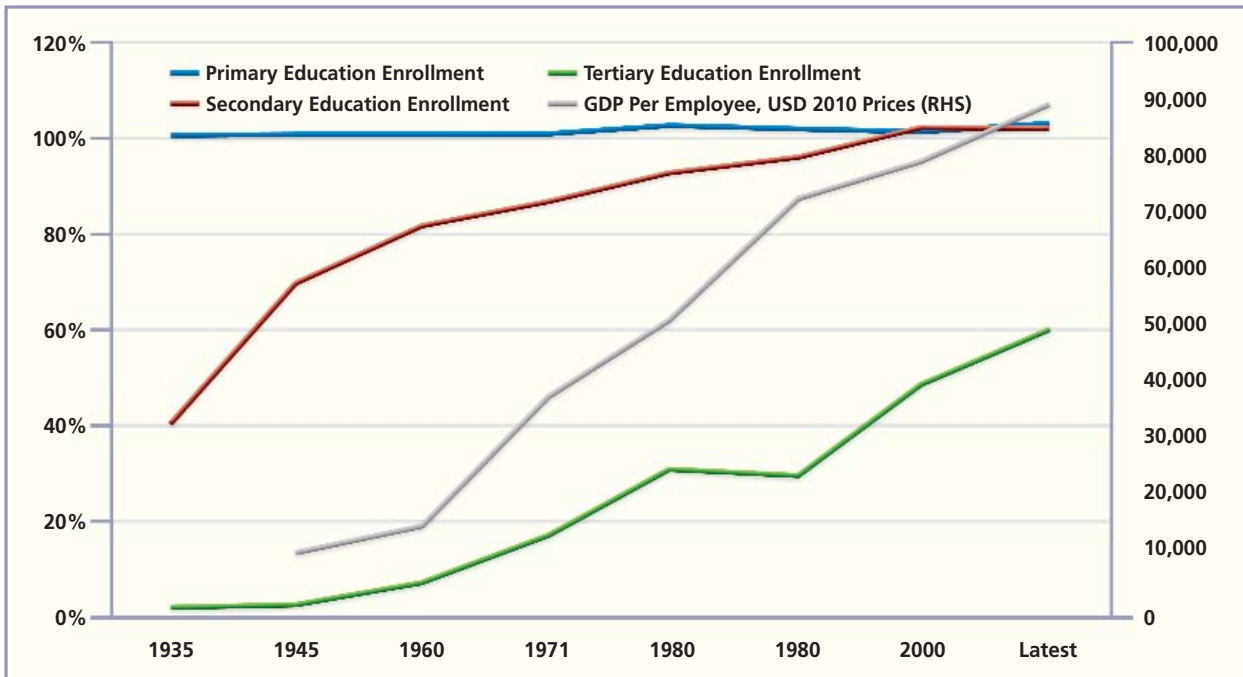
standably) reluctant to reveal too many difficult reforms. Nevertheless, the administration has claimed that it understands the need to boost female labor force participation. It remains to be seen though whether statements of intent will translate into true policy priorities, or whether mere lip-service is being paid to a long-standing yet hitherto barely addressed weakness.

As Chart 5 shows, Japan achieved universal primary education by the 1930s and in the following decades, secondary education enrollment rates also surged in tandem with labor productivity. Moreover, as Chart 6 below shows, women were by no means disadvantaged in their access to education especially in the post-War decades.¹³

Chart 6. Japan Gross Secondary and Tertiary Education Enrollment Rates



Chart 5. Japan Education Enrollment Rates and Output Per Employee



Yet over the same period, as Chart 7 illustrates, the female labor participation rate rarely exceeded 50% even as the male participation rate steadily fell.¹⁴

So why should low female participation rates persist in Japan despite the very real gains achieved in female education? Although state support for the principal carer cohorts is generally perceived as being underdeveloped, it is difficult to escape the conclusion that ingrained, misogynist employer attitudes might also have

played a role. For example, according to a November 2011 study by the Centre for Work-Life Policy:¹⁵ “Career minded and ambitious Japanese women prefer to work at multinational companies which they feel are more sensitive to the needs of women than private sector Japanese companies.... Sixty-eight percent believe that U.S.- or EU-headquartered companies are more woman-friendly than Japanese firms.” One might also fairly assume that non-Japanese employers are also more willing to offer more similar rates of pay to men

Chart 7. Japan Labor Participation Rates

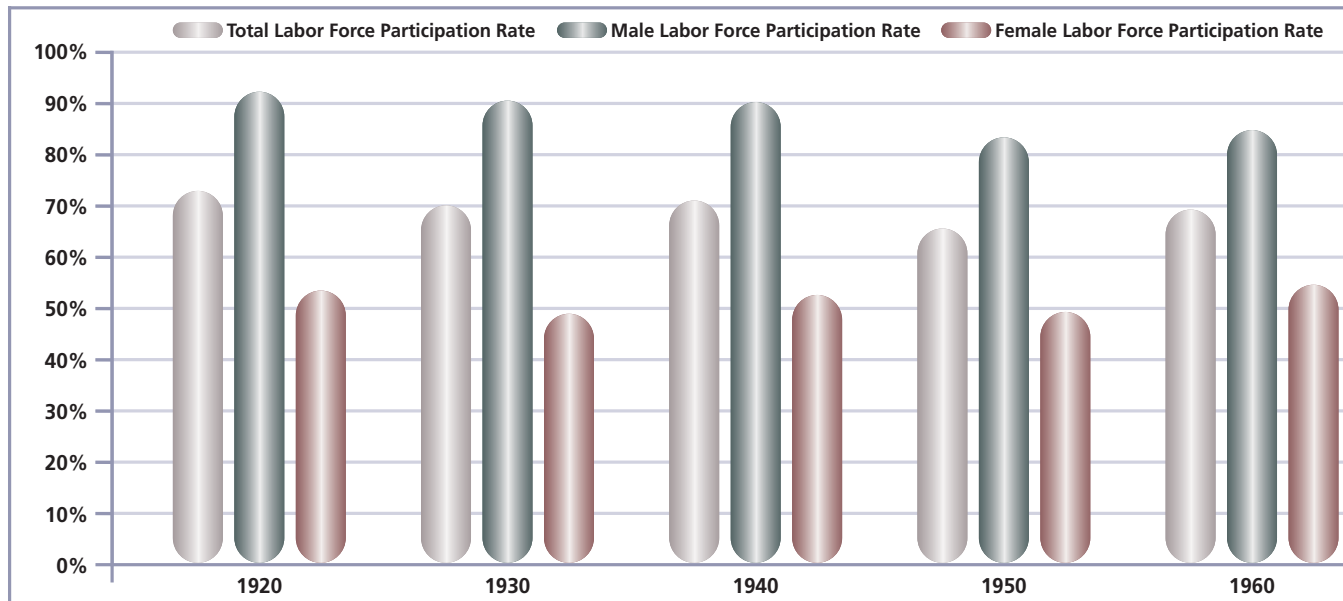
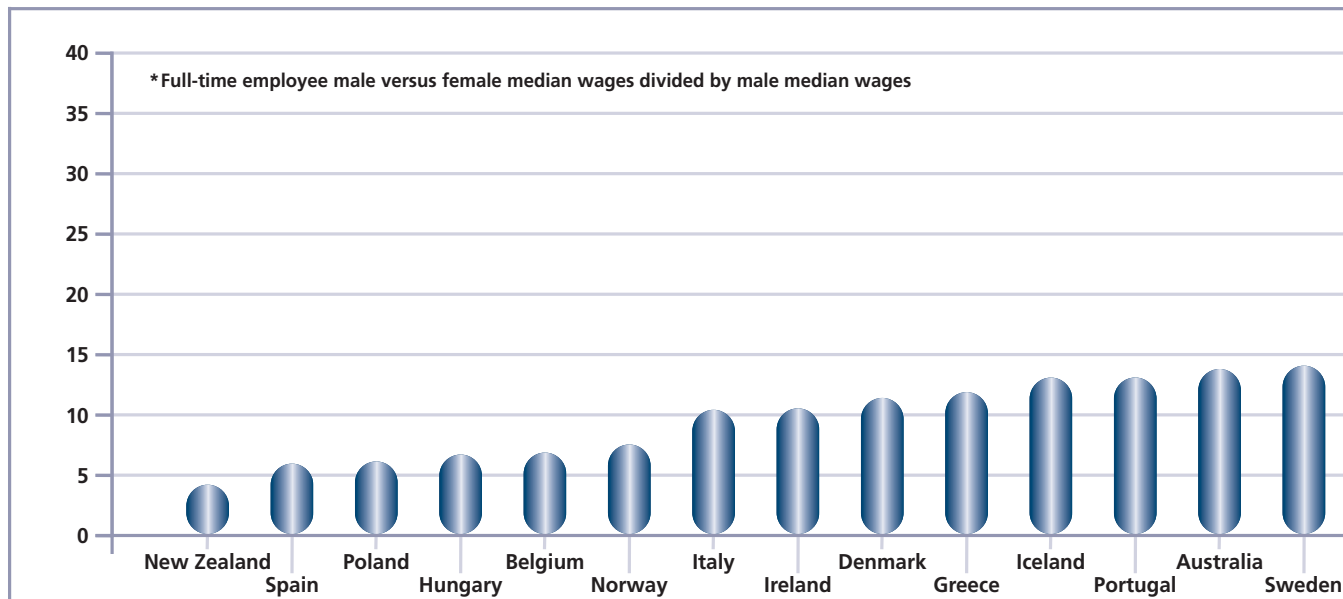
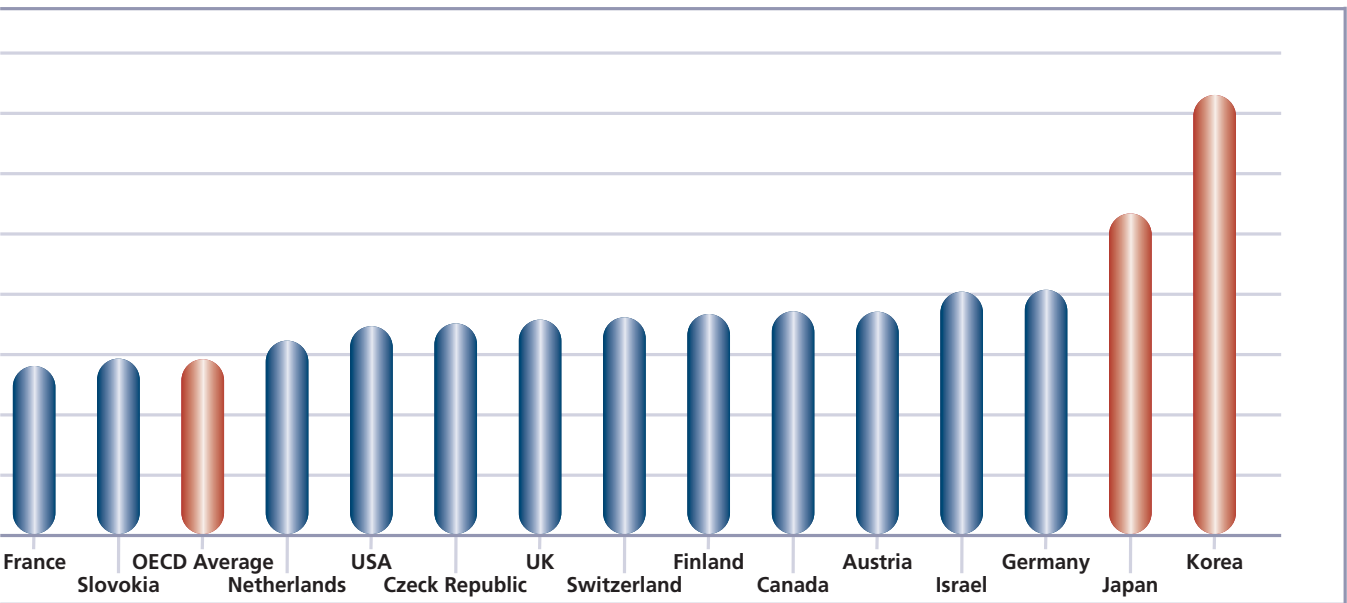
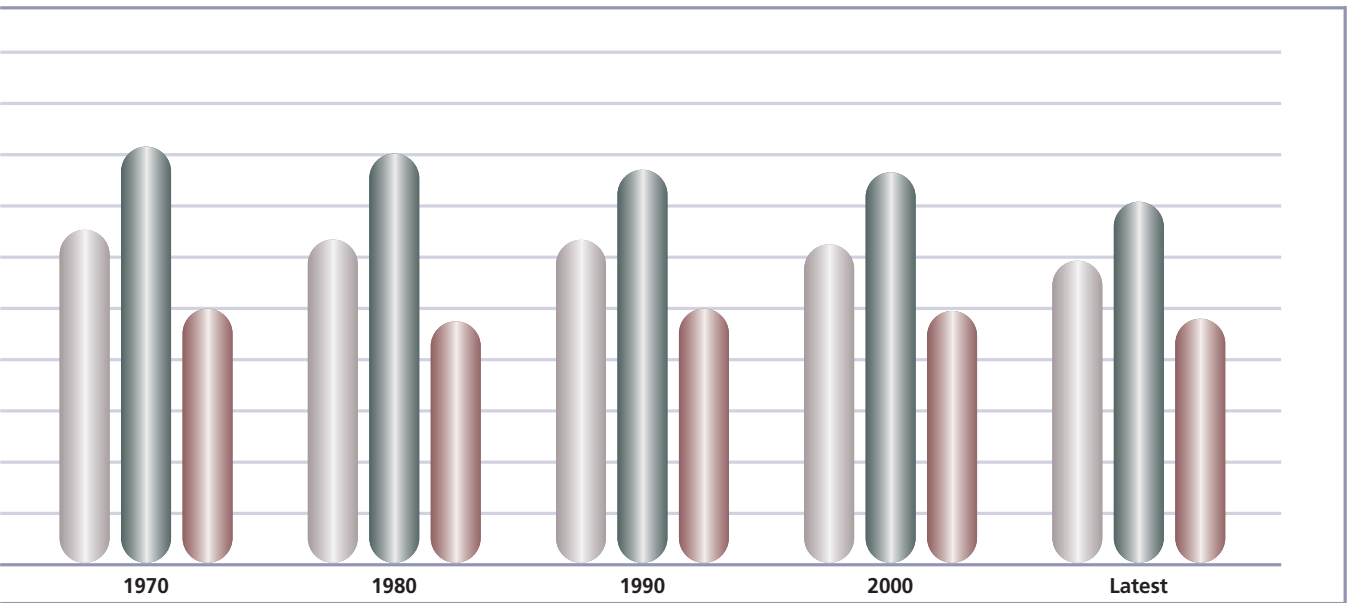


Chart 8. OECD Countries Gender-Wage Gap*



and women alike based on Japan's (and Korea's) stark outlier status on Chart 8 below. The good news is that there is a lot of low hanging fruit to be plucked potentially. Potential and realization may not however always be the same.



Japan (and Korea's) poor female participation rates and ostensive labor force gender inequalities also need to be put in the context of their very weak rates of overall labor force growth (or in Japan's case shrinkage) shown on Chart 9. Weak labor force growth rates are principally associated with low levels of fertility. The replacement rate for a population, i.e. the number of births per mother required to maintain a constant population, is generally estimated to be around 2.1 (in countries with low rates of child mortality). Replacement rates in developed North Asia are clustered around 0.9-1.2 though. Japan's population shrunk at an annualized rate of 0.1% over 2008-12 while Taiwan, Korea and Hong Kong struggled to eke out meager av-

erage per annum gains of 0.3%, 0.6% and 0.7% respectively. Furthermore, even if North Asian women start producing babies at a massively enhanced rate today, their offspring will not be entering the workforce for a couple of decades.

Only Singapore, despite having a local population fertility rate of only 1.2 in 2011, has managed to buck the trend in aggregate thanks to massive immigration. (Singapore has also managed successfully to boost its female labor participation, as the earlier chart on Page 7 illustrates.) This influx of foreign workers has driven population growth up by an average of 3% per annum over the past five years but the authorities are now con-

Chart 9. Average Annual Labor Force Growth 2008 - 2012

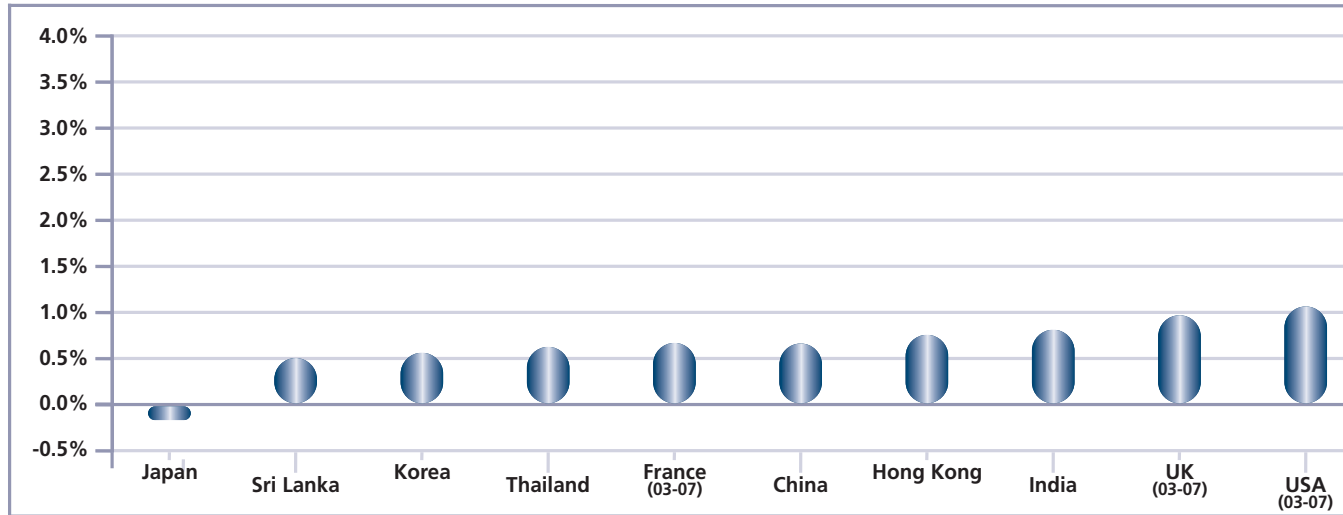
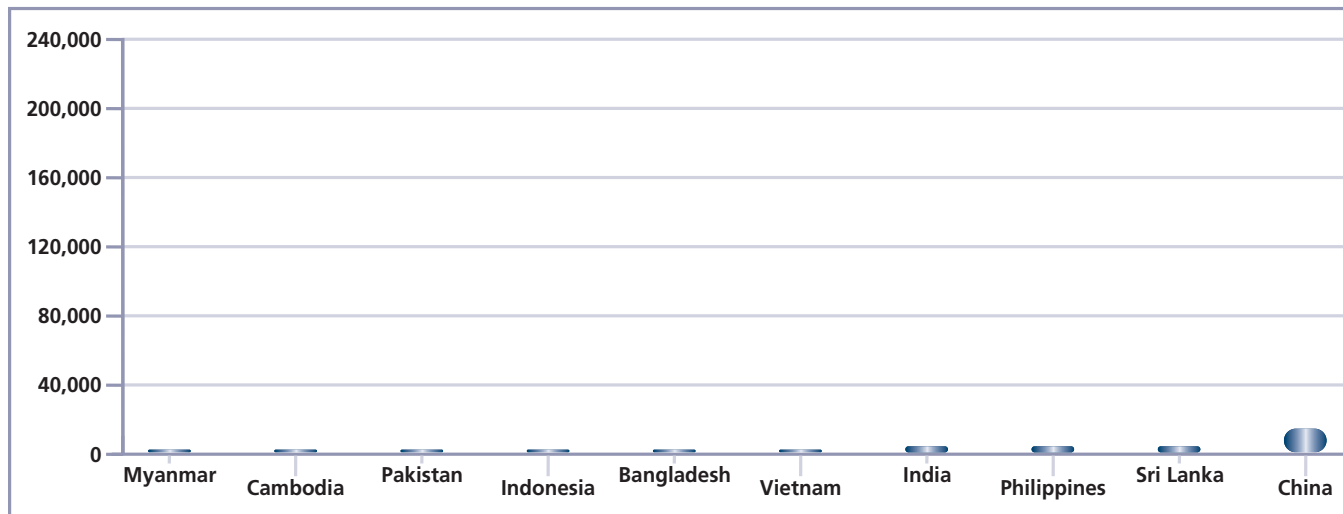


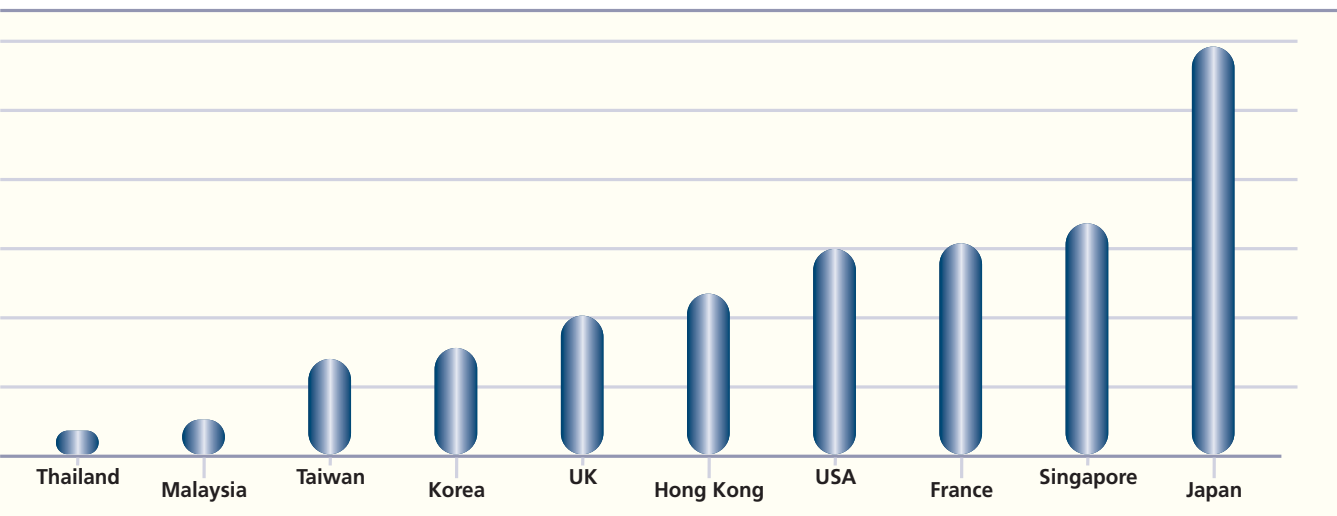
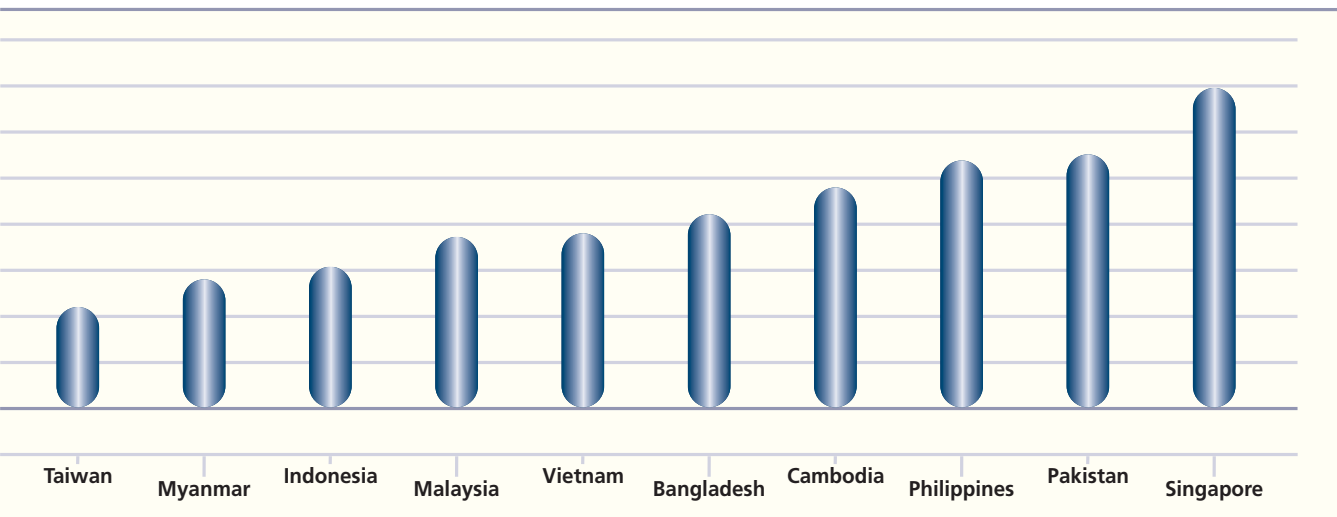
Chart 10. 2011 Capital Stock Per Capita, US Dollars



tending with the social consequences. Hong Kong too, with a much lower overall immigration rate, has also seen rising social tensions over the supposed flood of Mainlanders entering the SAR. And these are probably the two most cosmopolitan places in Asia. We would submit that it is highly unlikely that we will see the other developed North Asian countries deciding to throw open their doors to masses of overseas workers.

An additional factor to consider is a country's capital stock. A rule of thumb is that the higher the capital stock per capita installed, the harder it is to develop increasing returns on the capital stock employed. Chart 10 shows Japan is by far the world leader in this area.

This all leads one to the conclusion that if a country has a low indigenous birth rate and minimal labor force expansion, and it already possesses a well-endowed domestic capital stock, then higher economic growth has to be largely a function of increased returns on factors employed (implying the embrace of often politically-difficult-to-implement supply side reforms) or an exogenous or endogenous boost to the labor force. And in turn this latter boost can either come from immigration, or if participation rates are low, by getting increased numbers of, one hopes, highly-educated females to enter the labor force.



Where Japan goes do others follow?

Having set out this admittedly stylized roadmap, let us now consider how Japan compares to its OECD peers, and how the remaining Asian countries in our sample compare to Japan at its earlier stages of development.

In 1980, Japanese females were as well-educated

as most of their peers in the developed world (Americans aside), and had similar rates of labor force participation (Chart 11). Education levels have risen further since, yet Japanese female labor force participation rates have barely budged in contrast to the significant increases seen elsewhere (Chart 12).

Chart 11. Current Female Education Enrollment and Labor Force Participation Rates

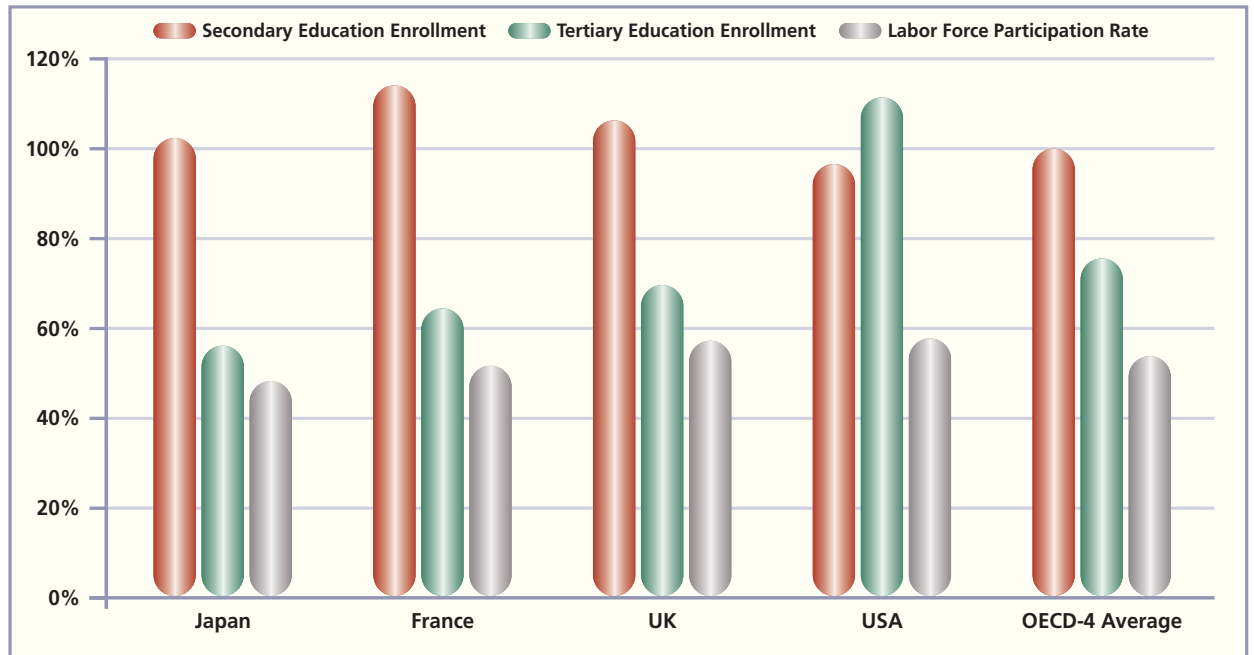
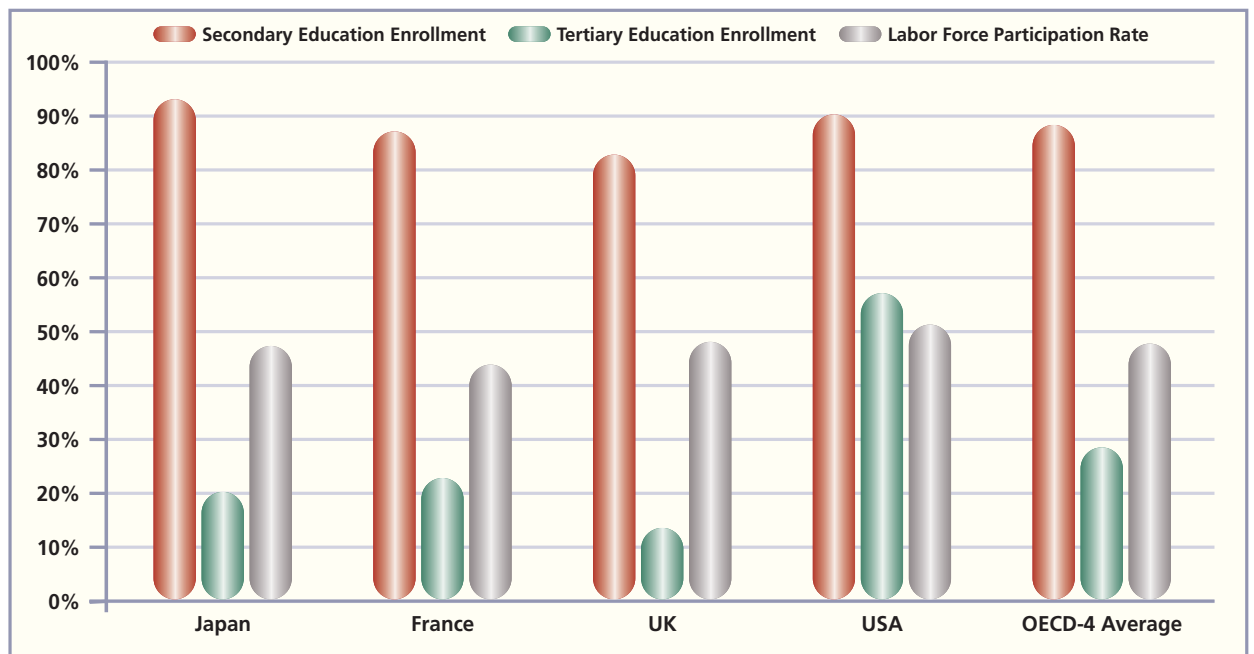


Chart 12. Female Education Enrollment and Labor Force Participation Rates, 1980



Charts 13 and 14 suggest that Japanese women have also stepped back relative to females in the Newly Industrialized Countries of Asia or NICs. In 1980 Japanese ladies were significantly better educated than their neighbors and also participated in greater proportions in the workforce. A quarter of a century on, Japan has

fallen to the back of the pack on pretty much every measure. Unfortunately, Singapore aside, this group of countries seems overall not to make the best use of their large cohort of educated females.

Chart 13. Current Female Education Enrollment and Labor Force Participation Rates

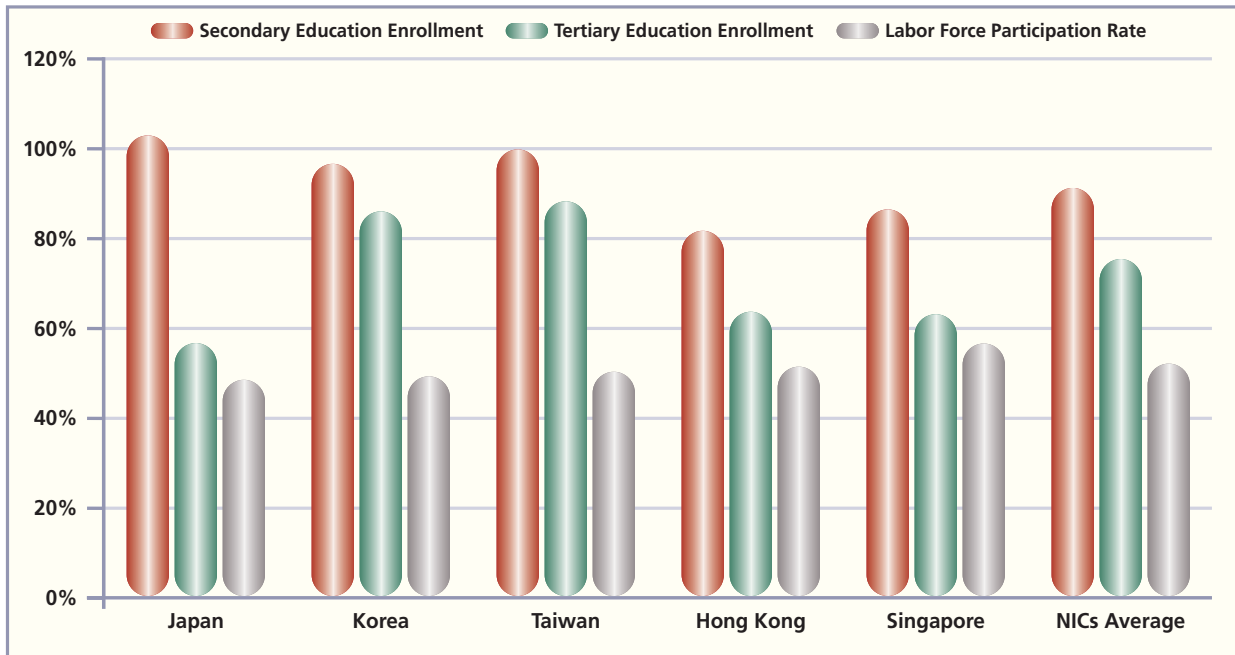
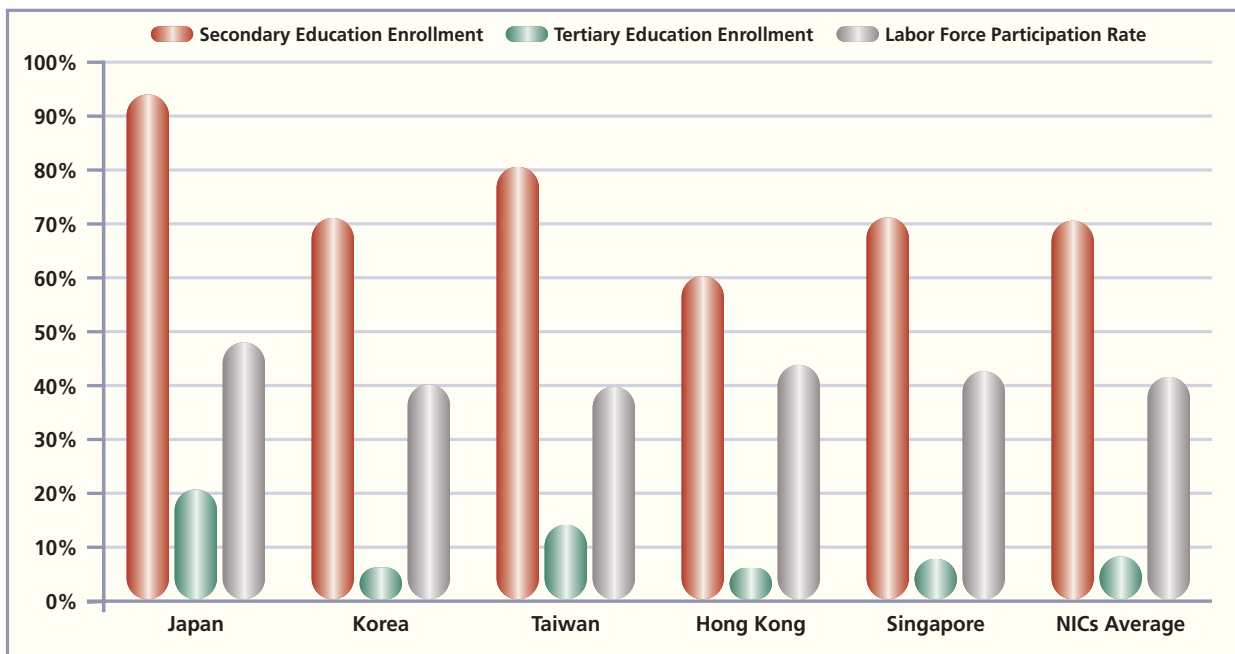


Chart 14. Female Education Enrollment and Labor Force Participation Rates, 1980



The successful development path of the NICs set the stage for other developing countries to follow (we have grouped the ASEAN-4 plus China as the “Tigers” here). The patterns shown on Charts 15 and 16 are somewhat less uniform however. Malaysia, the richest of this group of countries, and with one of highest proportions of females in tertiary education, has a female labor force participation rate barely above 40%. Filipina education levels were significantly ahead of their peers (and indeed those in the NICs) in 1980 and remain pretty cred-

itable today. Yet there has been little sign of a productivity or female labor force participation rate surge in the intervening quarter century. Indonesian female education endowments have improved significantly since 1980 but participation rates have been rather static. And Thailand and China, although seeing their very high female participation rates fall in line with their reliance on agriculture, have succeeded in continuing to find ample employment opportunities for their increasingly educated ladies.

Chart 15. Current Female Education Enrollment and Labor Force Participation Rates

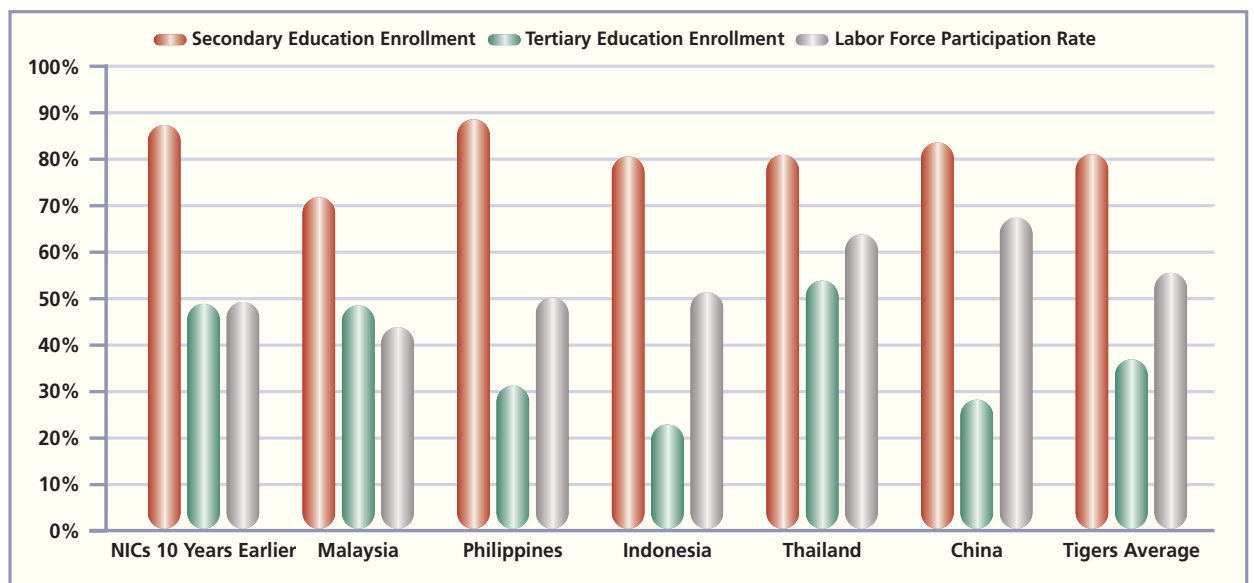
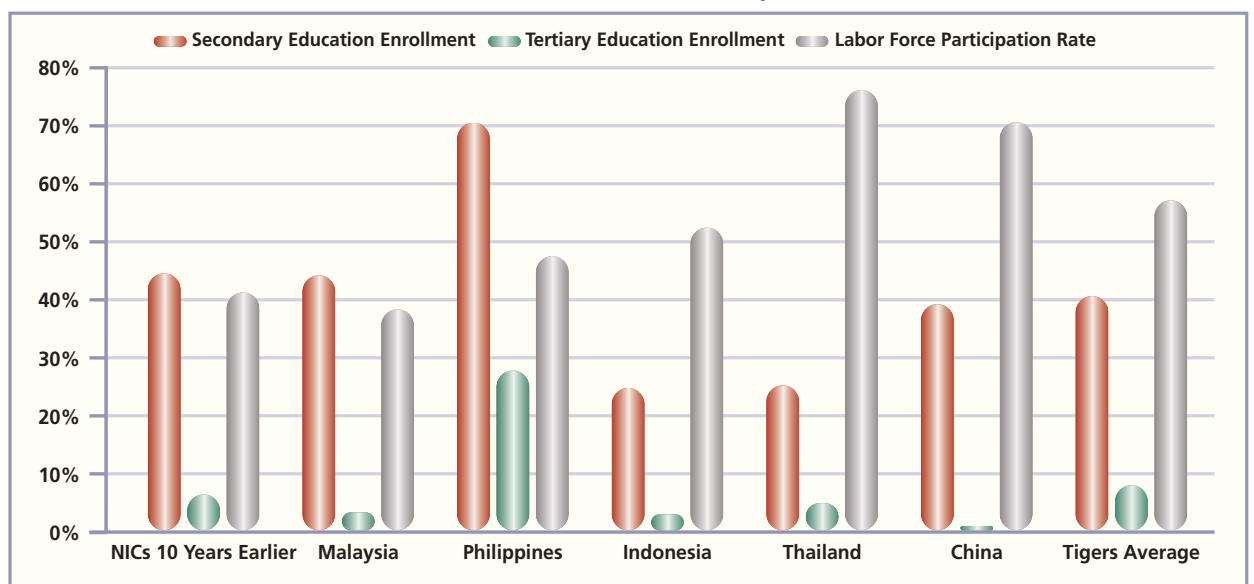


Chart 16. Female Education Enrollment and Labor Force Participation Rates, 1980



For South Asia (Charts 17 and 18), we have restricted ourselves to looking at primary and secondary education enrollment rates since tertiary penetration remains rather low. We have also chosen to employ Indonesia ten years earlier as our comparator country for a couple of reasons. First, economic reform processes on the Subcontinent generally began in earnest only in the 1990s whereas the Tigers for the most part embarked on theirs at least a decade earlier. Second, it is useful to have a developing Islamic-majority country as

a control although as we have already seen Malaysia does not have a good record on female employment while Indonesia's record is roughly in line with regional averages. Indeed, the very visible contrast between Bangladesh and Pakistan suggests that religious-based explanations are rather weak. What is clear is that Bangladesh is a standout on a Subcontinent with a generally poor record of female empowerment. To be fair, Sri Lankan education indicators have tended to be both good and gender-equal over the decades and there may

Chart 17. Current Female Education Enrollment and Labor Force Participation Rates

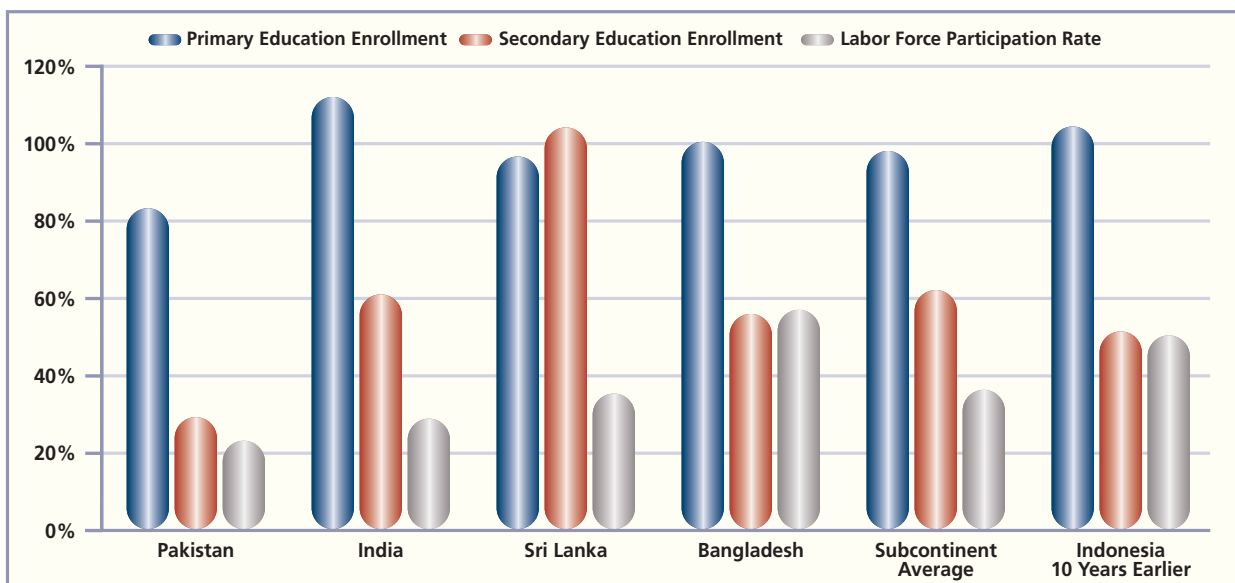
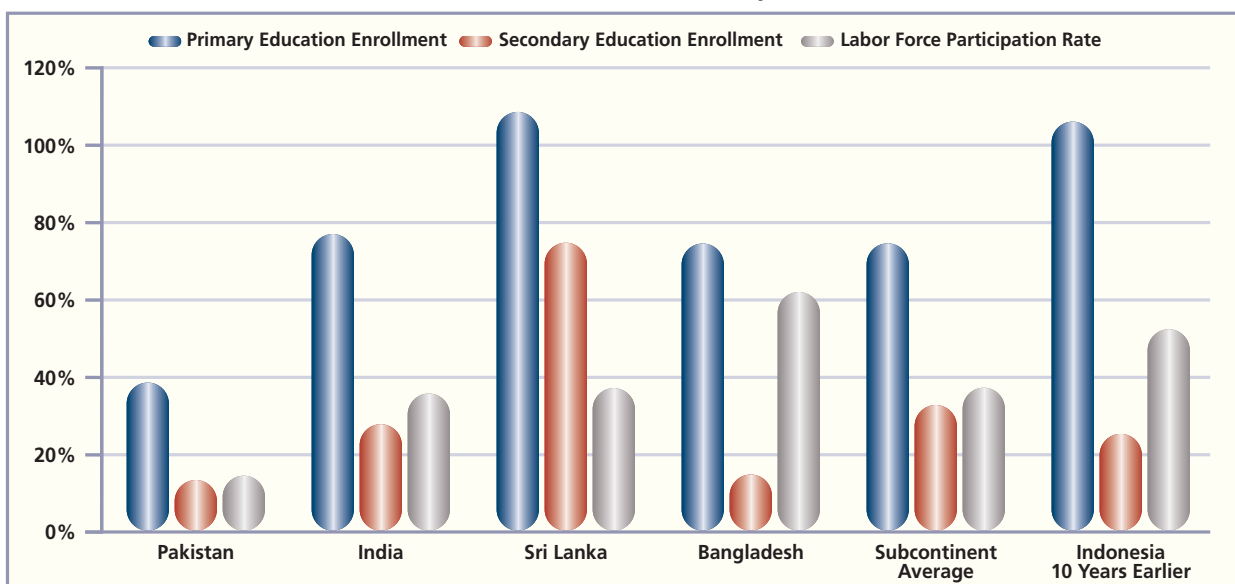


Chart 18. Female Education Enrollment and Labor Force Participation Rates, 1990



be conflict-related factors at work in suppressing female labor force participation rates. We shall have to see if increased female employment is one of the peace dividends garnered. By contrast, the records of both India and Pakistan are not good. We would submit that irrespective of education opportunities for females (where India at least fares better), it is the conditions for overall job creation, especially in labor-intensive manufacturing that will determine whether female, and indeed overall participation rates will rise. Recall from the earlier page

that Bangladesh aside, formal labor force participation rates across the Subcontinent are the worst in our sample.

Finally we turn to the ASEAN nations more recently embarking on programs of economic reform and opening up up to the outside world. On measures of female education and employment, the portents seem good (Charts 19 and 20). Universal primary education has been achieved while secondary enrollment rates for

Chart 19. Current Female Education Enrollment and Labor Force Participation Rates

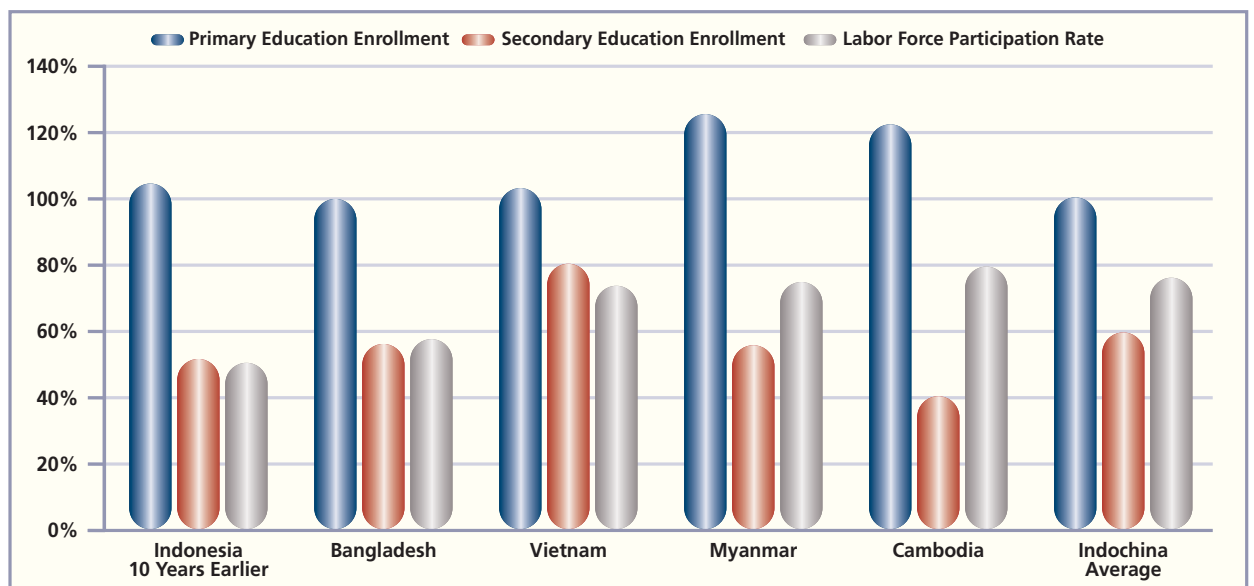
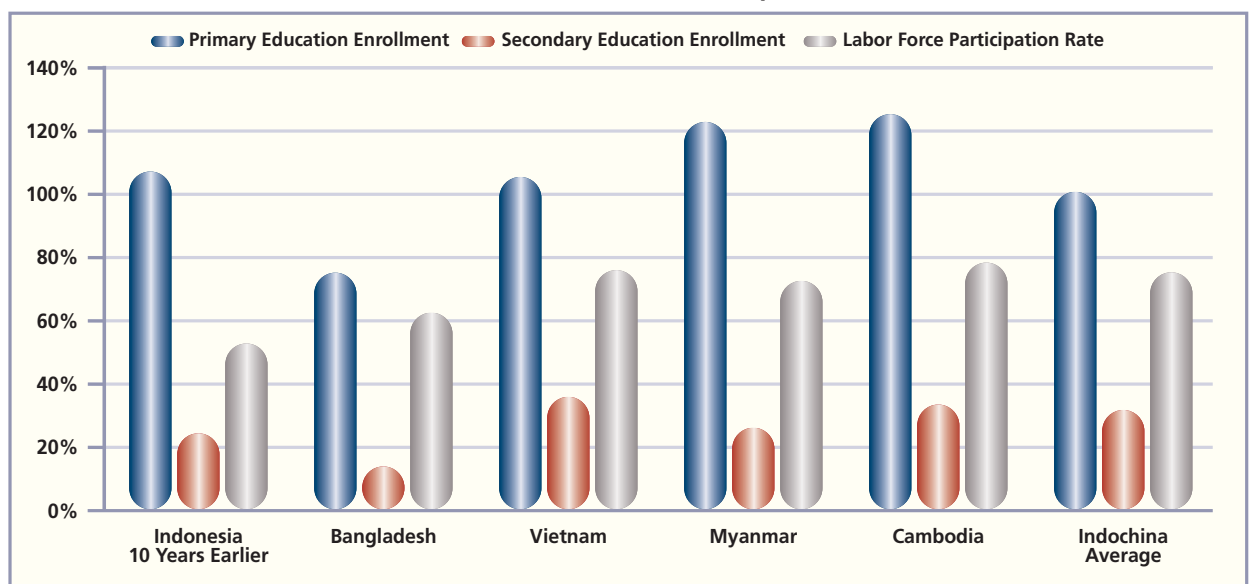


Chart 20. Female Education Enrollment and Labor Force Participation Rates, 1990



women ex-Cambodia are comparable with or better than those achieved by Indonesia a decade earlier. This bodes well for future productivity growth, especially if labor laws remain employer and investor friendly, and infrastructure is successfully upgraded. It should be noted that Indochina's still heavy dependence on agriculture almost certainly boosts its female labor force participation rates. Nevertheless, it would appear that Vietnam, the most industrialized of the three is following the path trodden by China and Thailand by main-

taining high female employment shares. Can Cambodia and ultimately Myanmar achieve the same?

Conclusion

The good news from this brief survey is that a couple laggards aside, East and South Asia have successfully boosted the education levels of both men and women over the past four decades, and have hence seen labor productivity levels rise in tandem. The rather less positive news is that many within these increasingly large cohorts of educated women have struggled to find suitable employment opportunities. Perhaps they just do not want to work. Perhaps support mechanisms for child and elderly care are inadequate. And perhaps traditional, chauvinistic cultural attitudes have yet to be fully diluted. Whatever the explanation, in a region where many societies are rapidly aging and overall labor force growth is slowing or even contracting, passing up

on the opportunity to employ large numbers of highly educated females feels like a self-inflicted wound. Governments might do well to consider adopting female labor force participation-friendly policies.

1. For a general assessment see World Bank, 2012. *World Development Report 2012: Gender Equality and Development*. Washington, D.C. For a discussion on the complexity and challenges in establishing the causality and quantifying the results see Memmen, K. and C. Paxson. 2000. Women's Work and Economic Development. *Journal of Economic Perspectives*. 14(4): 141-64.
2. There is a very extensive economic literature on this issue; and for a summary of the research literature with a focus on Asia, see Van der Maulan Rodgers, Y. and J. E. Zveglich, Jr. 2012. *Inclusive Growth and Gender Inequality in Asia's Labor Market*. Economics Working Paper Series, No. 321. Asian Development Bank.
3. This is sometimes referred to as the "U" curve of women's labor force participation. See Goldin, C. 1994. The U-Shaped Female Labor Force Function in Economic Development and Economic History. NBER Working Paper Series No. 4707. National Bureau of Economic Research.
4. Carr, M., M.A. Chen, and J. Tate. 2000. Globalization and Home-Based Workers. *Feminist Economics*. 6(3): 123-42.
5. This is not a subject we will discuss in any detail in this paper since wage data series in all but a few of the richest Asian countries are extremely limited.
6. For a sample of the debate, see Menon, N. and Y. Rodgers, 2009. International Trade and the Gender Wage Gap: New Evidence from India's Manufacturing Sector. *World Development*. 37(5): 965-8. Kabeer, N. 2004. Globalization, Labor Standard, and Women's Rights. *Feminist Economics*. 10(1): 3-35. Black, S. and E. Brainerd, 2004. Importing Equality? The Impact of Globalization on Gender Discrimination. *Industrial and Labor Relations Review*. 57(4): 540-59.
7. Daly, K. 2007. *Gender Inequality, Growth and Global Ageing*. Global Economics Paper No. 154. Goldman Sachs.
8. The labor participation rate is defined as the proportion of 15-64 year olds who are in or are actively seeking employment.
9. We will assume for simplicity that the supply of land is fixed though this clearly ignores the potential for land reclamation or the annexing of another country's territory.
10. In 1950, according to a Levy Economics Institute study by Jesus Filipe, Arnelyn Abdon and Utsav Kumar, only 3 countries out of their sample of 124 were classified as having attained upper income status defined as a 1990 prices per capita income above USD11,750 (other studies tend to use higher thresholds). Over the next five decades, 40 of 82 low-income countries moved to middle income status but only a further 29 managed to transition to upper income status of which 5 were major oil producers. The good news from the standpoint of this paper is that East Asia's record was considerably better than anywhere else. [Tracking the Middle-income Trap: What Is It, Who Is in It, and Why?](#) Levy Economics Institute Working Paper No.715, April 2012.
11. As Yuwa notes in his introduction, such policies can, perhaps counter-intuitively, potentially reinvigorate fertility rates.
12. In all the charts that follow, we have employed UNESCO gross enrollment rates since these are readily available across multiple decades. The gross enrollment rate (GER) is the number of pupils enrolled in a given level of education relative to the theoretical cohort for that education level regardless of age. By contrast, the net enrollment rate (NER) compares the number of enrolled pupils of the theoretical age group relative to the total size of that cohort. A GER of more than 100% can occur when pupils who missed schooling due to say war are re-entering education to make up for lost time—Cambodia post-1990 provides a salient example. Prolonged periods of unemployment in richer countries can also drive a similar phenomenon as displaced workers go back to their studies in order to boost, they hope, their human capital and employment prospects. In the USA, where the government has aggressively funded or underwritten student loan programs, the female GER for tertiary education stood at 111 in 2010! For the purposes of this paper we will disregard subjective issues of education quality. All we would note is that the returns to imparting basic literacy and numeracy tend to be uniformly high but likely diminish at higher levels of education where the quality of what is taught likely becomes increasingly important.
13. Whether this was attributable to a deep commitment to sexual equality, or driven out of the necessity of replenishing the labor force of the missing men resultant of military attrition, is uncertain.
14. Overall participation rates tend to fall as economic structures move away from an agricultural and labor-intensive manufacturing bias, and become more capital and knowledge intensive. The development of a generous welfare state also tends to drive down participation rates.
15. [Off-Ramps and On-Ramps Japan: Keeping Talented Women on the Road to Success](#) by Sylvia Ann Hewlett and Laura Sherbin with Catherine Fredman, Claire Ho and Karen Sumberg. http://www.worklifepolicy.org/index.php/section/research_pubs

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As a student of philosophy, political science, and economics, Yuwa studied at Trent University and pursued post-graduate training at the University of British Columbia and Simon Fraser University in Canada, where he received his Ph.D. He also received training, at the post-doctoral level, in health economics, energy and environmental economics, and scenario forecast and planning.

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