

Malaysia's Labour Market and Job Creation under the Economic Transformation Program (ETP) 2011 to 2015

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By
Lim Ping Jun¹

¹ Lim Ping Jun can be reached at pingjunlim@gmail.com

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1.0 Introduction

On September 2010, the Economic Transformation Programme (ETP) was launched by PEMANDU, a unit under the Prime Minister's Department, as part of the process to transform Malaysia into a high-income country. The target was to generate 3.3 million new jobs by 2020, with income and employment growth driven by the twelve National Key Economic Areas (NKEAs)². This report analyses developments in the labour market from 2011 to 2015. There are four main topics of discussion namely (i) the distribution of new jobs (ii) youth unemployment and underemployment (iii) wages and income and (iv) foreign labour in Malaysia.

Since the launch of the ETP, 2.2 million new jobs have been created in Malaysia. The majority of these jobs are concentrated in industries that largely employ mid-low skill workers, such as wholesale & retail, accommodation & food, and health & social work activities. This is further reflected in the rising share of low-skill occupations in the economy. While women took up 55% of new jobs, the number of women in managerial positions has stagnated. In 2011, only 22.5% of managerial positions were held by women - a figure which did not change in 2015.

Geographically, there appears to be an uneven distribution of the number and type of jobs created. For example, 55% of new high-skill jobs were generated in the state of Selangor alone, whereas 41% of the new low-skill jobs was created in Sabah. Such a contrast suggests that there may be inequitable growth and economic opportunities across states.

Overall unemployment has remained low at about 3%, with tertiary graduates taking up an increasing share of the workforce. However, this rosy picture of full-employment and human capital growth may mask several underlying challenges. Despite becoming more educated, youths are finding it increasingly difficult to secure employment. The unemployment rate for the age group of 20-24 has gradually risen up to 9.3% last year, three times more than the overall rate. There is a growing mismatch of the skillsets supplied and demanded in the labour market, leading to underemployment as tertiary graduates increasingly take jobs that only require secondary-level education and thus they might be 'overqualified' for.

Supply-side interventions were introduced by the government to improve the employability of our fresh graduates. While several schemes such as Accelerated Skills Enhancement Training (ASET), Skim Latihan 1 Malaysia (SL1M), and Graduate Employability Management Scheme (GEMs) have had some limited success in helping our youths secure temporary employment, the lack of consistency in implementation and the lack of up-to-date impact evaluation on the schemes makes it difficult to assess its longer term effectiveness.

Wages and salaries are the largest source of income for households in Malaysia. The share of Gross Domestic Product income going to employees has been rising in recent years, from

² Greater KL/Klang Valley; oil, gas & energy; palm oil & rubber; wholesale & retail; financial services; tourism; electronics & electrical; business services; communications content & infrastructure; education; agriculture; healthcare.

32% of GDP in 2011 to 35% of GDP in 2015. Median wages grew at a CAGR of 5% in nominal terms and at 3% in real terms from 2011 to 2015. Wages in agricultural and machine-operating occupations experienced the fastest growth, at 11.2% and 8.8% respectively in nominal terms. Part of the rise in median earnings could be attributed to the minimum wage legislation implemented in 2013. Those who were at the lower end of the salary distribution saw a boost in their monthly earnings. This is reflected in the wide variation of wage growth among states. Median monthly wages in Kuala Lumpur only had a CAGR of 3.7%, while the median wage in Sabah grew the fastest, at 10%. This is because the latter state has a significantly higher share of low-skilled workers who benefited directly from the minimum wage policy.

Out of the 2.2 million new jobs created in the economy since 2011, 317,000 are taken up by foreign workers. The size of the foreign labour force in Malaysia has risen from 1.8 million in 2010 to 2.1 million in 2015. In addition, there is an estimated number of 1 million undocumented workers that participate in the economy as well. Foreign workers form more than 15% of our workforce. Labour-intensive sectors such as agriculture, construction and manufacturing are highly dependent on them. More than half of the workforce in the construction sector are foreign workers. The majority of these workers participate in elementary occupations and are largely low-mid skilled. According to ILMIA's (2014) analysis, only 2.6% of the foreign workers are employed in high-skill occupations while the majority of foreign workers hold mid-low skill jobs.

2.0 The Labour Market since 2011

From 2010 to 2015, Malaysia's labour force grew from 12.3 million to 14.5 million, an increase of 2.2 million. Simultaneously, the number of employed persons rose from 11.9 million to 14.1 million, a parallel increase of approximately 2.2 million. As of 2015, two-thirds of the ETP's targeted creation of 3.3 million new jobs has been reached.

To understand how much of a difference the ETP made over and above 'business as usual' growth, we compared recent labour market developments before and after the ETP's implementation. As seen in figure 1, the CAGRs of employment in both periods are in line with the CAGR of our labour force size, a sign that our economy has a healthy capacity to absorb the supply of workers. Our labour force increased at a CAGR of 3.32% while that for the number of employed persons was 3.31% from 2006-2010. This is matched with a rising Labour Force Participation Rate (LFPR) in the country, partly due to the increasing share of women participating in the workforce and the extension of the minimum retirement age from 55 to 60 in 2013 (LFS 2013, 2014 & 2015).

Figure 1: Number of labour force & employed persons



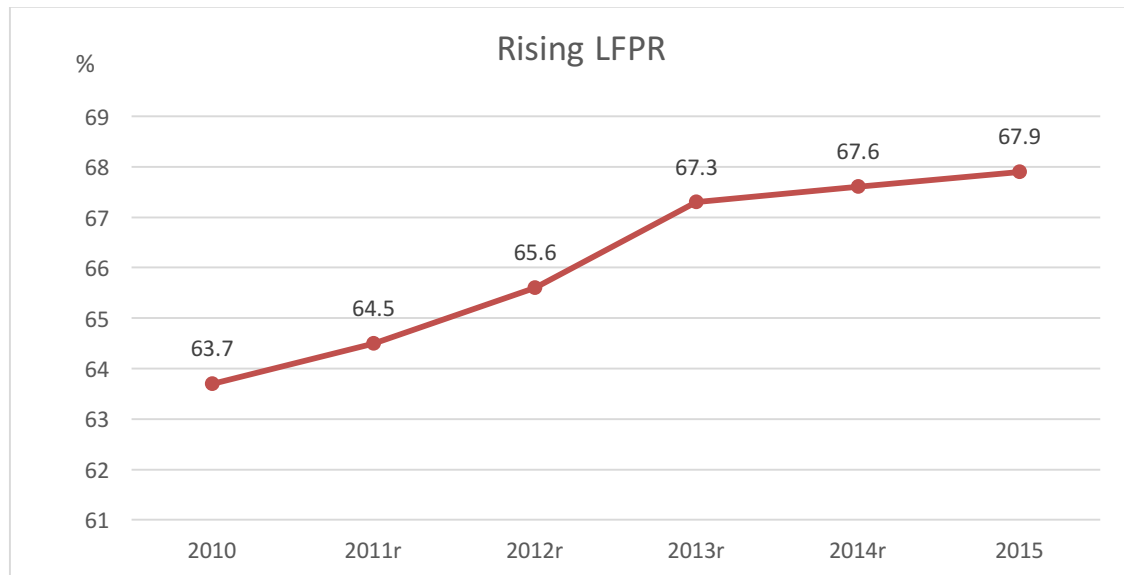
Source: DOSM, LFS Time Series & author's calculations

Table 1: CAGR of labour force & employed persons

	2006-2010	2011-2015
CAGR of labour force (%)	3.73	3.32
CAGR of employed persons (%)	3.74	3.31

Source: DOSM, LFS time series & author's calculations

Figure 2: Labour Force Participation Rate



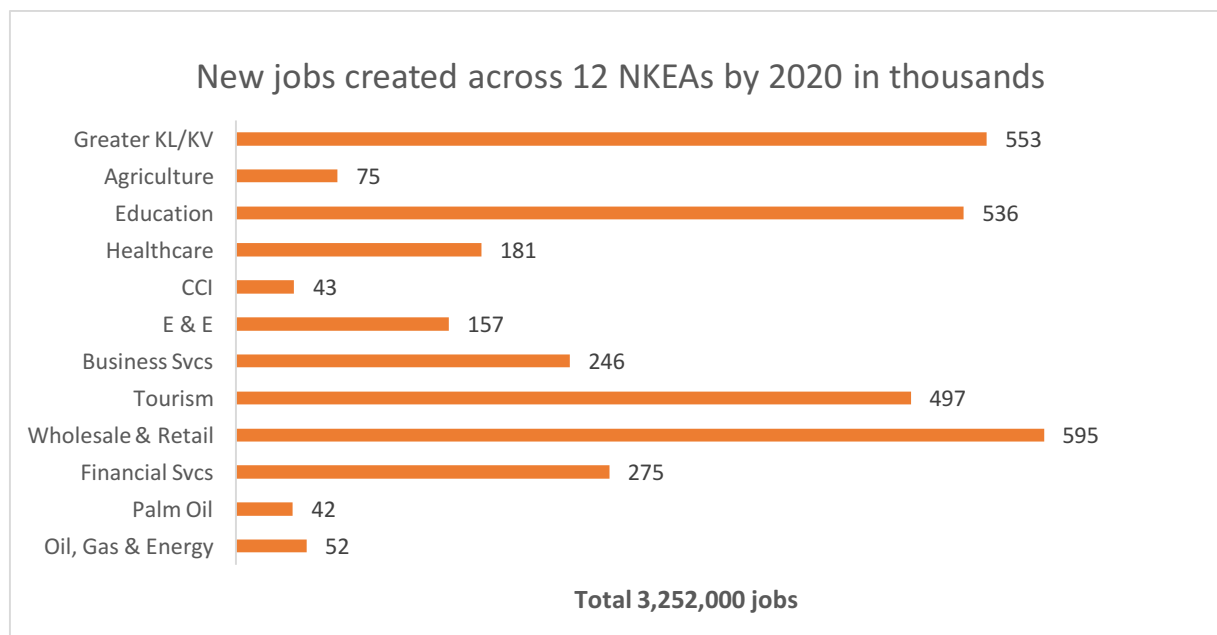
Source: DOSM, LFS Time Series

ETP goals in the labour market

The ETP is launched to prioritise top sectors of the economy that Malaysia has comparative advantages in and turn these into 'hotspots' for investment. The ETP featured 12 National Key Economic Areas (NKEAs): oil, gas & energy, financial services, palm oil & rubber, wholesale & retail, agriculture, tourism, electronics & electrical, communications content & infrastructure, healthcare, business services and education. These NKEAs received prioritised government support due to their potential to enhance Gross National Income (GNI) and generate employment in the economy.

The following is a brief review of the ETP's goals on job creation in greater detail when it was first launched in 2010. The ETP has a job creation target of 3.3 million across the 12 NKEAs, predicted to be achieved by 2020. According to the blueprint, wholesale & retail would create 19% of the new jobs, Greater KL/Klang Valley 17%, education 16%, tourism 15%, and financial services 8%.

Figure 3: ETP targeted job creation by NKEA

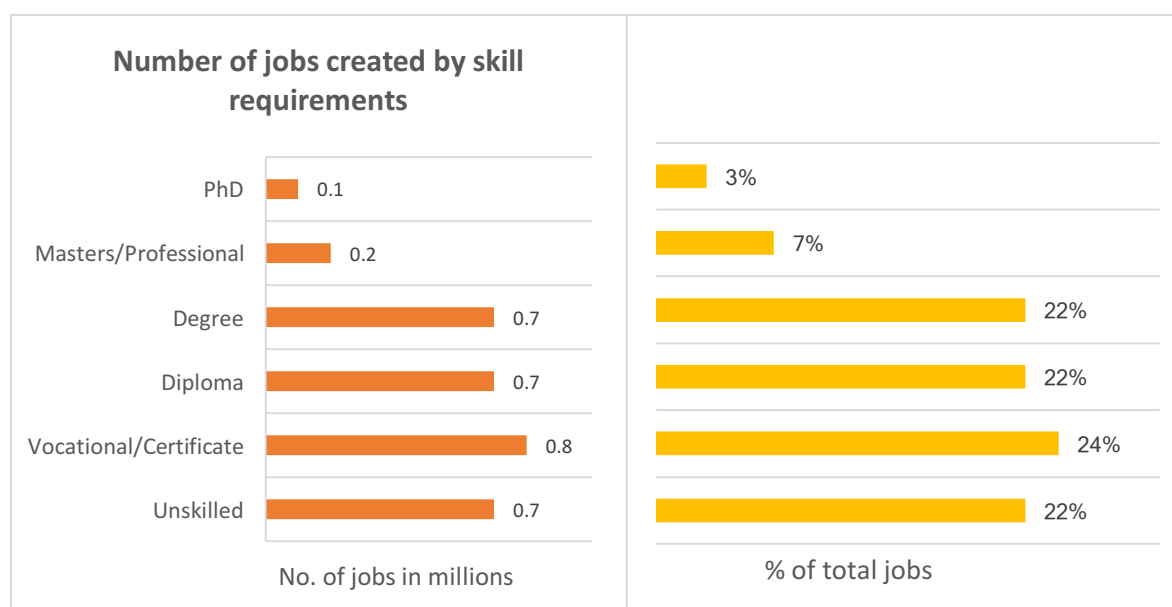


Source: EPU, 2010

The ETP is predicted to generate mostly mid-high skilled jobs in the economy. Following both local and international definitions, a 'high-skilled' employee would require either tertiary education or sufficient work experience to qualify for their post (see Appendix I). According to the ETP's report, at least 54% of all new employment created should be suitable for employees with diploma or degree qualifications.

"In the years towards 2020, there will be a better fit between the skills demanded in the labour market and the skills developed. What Malaysia needs most of all is a much larger pool of well-trained and competent individuals with the right vocational and technical training" (EPU, 2010).

Figure 4: ETP targeted job creation by educational attainment

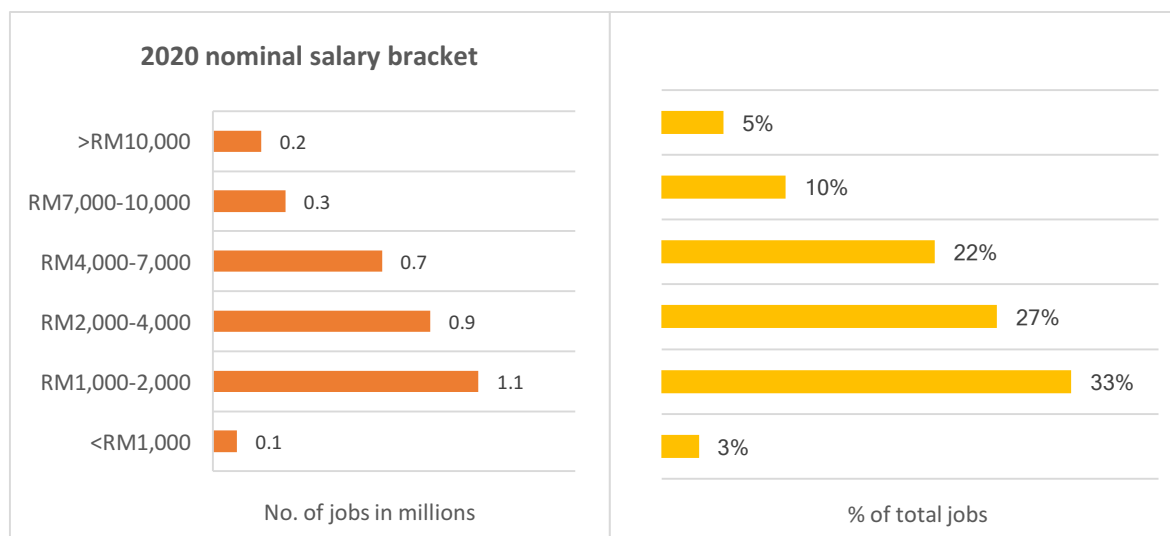


Source: EPU, 2010

In terms of salary distribution, 15% of jobs created were forecasted to be in the high-income bracket with wages above RM7,000 in 2020 nominal values. A further 49% of new jobs would fall within the medium income bracket with earnings between RM2,000 and RM7,000, while 36% would be considered low income with wage earnings below RM2,000.

It should be noted that the ETP's target was not only to create high-income jobs, but also to increase the composition of such jobs by a factor of three while lowering the share of low or unskilled jobs (EPU, 2010). This is to ensure inclusive growth such that workers from both the low and high skill ends could benefit from a larger economic pie for all.

Figure 5: ETP targets in salary distribution



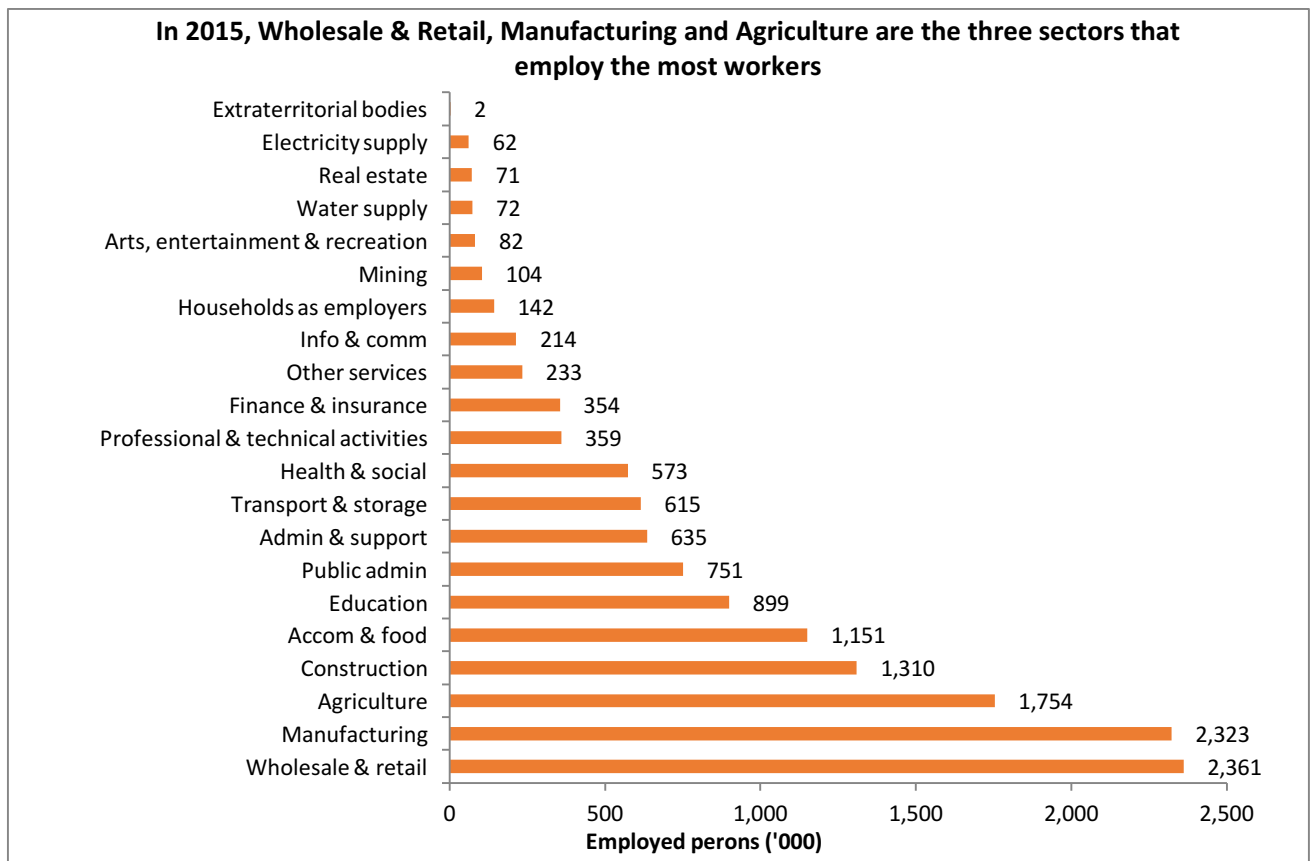
Source: EPU, 2010

2.1 Employment by branch of economic activity

In Malaysia, different economic sectors hold varying degrees of importance as job creation pools. In 2015, the wholesale & retail industry alone recruits over 16% of the entire employed population. The manufacturing sector comes close as the second most important source of employment, followed by agriculture and construction.

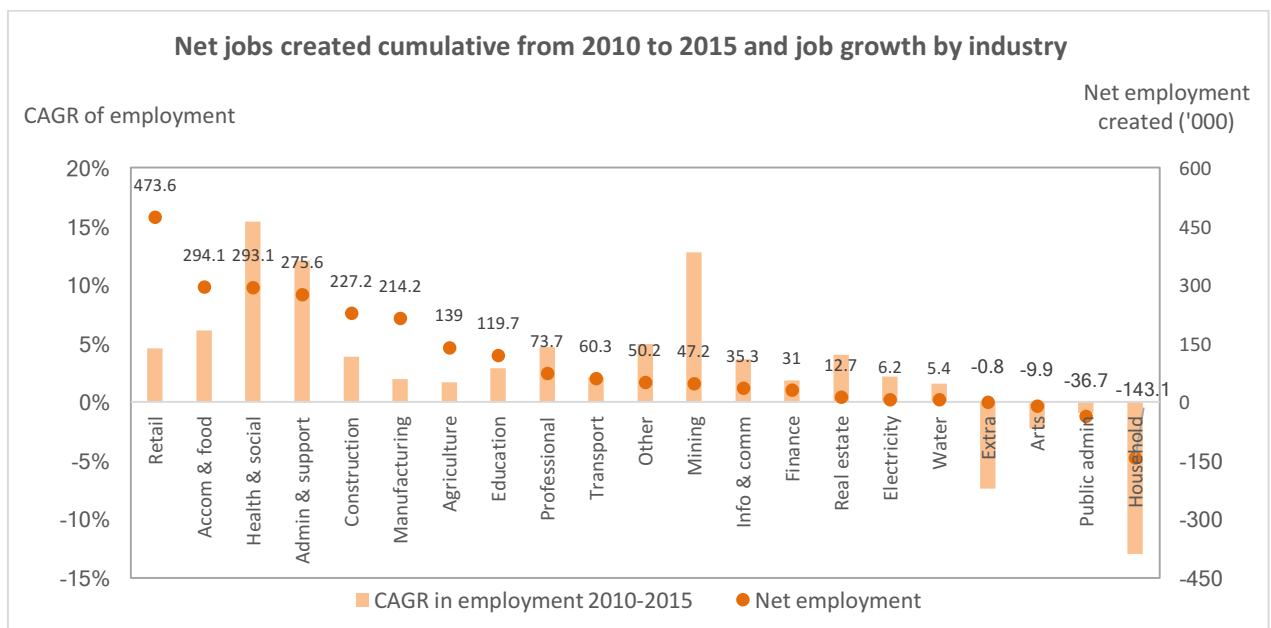
Figure 7 shows the distribution of the 2.2 million new jobs created between 2010 and 2015 across different sectors. The retail sector generated the largest number of new jobs, recruiting an additional 473,600 workers in the economy, or approximately 22% of total net employment created within the period. Notably, most of the top job-creating industries typically employ mid-low skilled workers. For example, while industries like accommodation & food, health & social and administration & support generated a high share of new jobs in the market, the predominant form of employment in these industries is that of mid-low skill level, such as sales and services, clerical support and other elementary occupations (see Appendix II).

Figure 5: Employment by sector



Source: DOSM, LFS 2015

Figure 6: Cumulative net jobs (2010-2015)



Source: DOSM, LFS Time Series

Focusing on NKEA-linked sectors

This section focuses on three NKEAs that were projected to produce a large share of new jobs in the economy under the ETP – wholesale & retail, education and financial services. As table 2 below shows, the wholesale & retail sector is predicted to create 595,000 jobs, the education sector would produce 536,000 jobs and the financial services sector would create 275,000 jobs.

Table 2: Comparing NKEA targets and actual jobs created (2010-2015)

Top NKEAs for job creation	Job creation target 2020 ('000)	Jobs created from end of 2010-2015 ('000)
Wholesale & Retail	595	474 (80%)
Education	536	120 (22%)
Financial Services	275	31 (11%)

Source: DOSM, LFS Time Series & author's calculations

The wholesale and retail NKEA was to create 595,000 jobs through various entry point projects (EPPs) such as the increase of large format retail stores, including the expansion of TESCO, and the TUKAR programme, which assists small retailers in upscaling their business. In terms of job creation, this NKEA appears to be on track in achieving its goal, with 80% of the targeted job creation already reached as of 2015.

Meanwhile, it was expected that the education NKEA would generate an additional 536,000 jobs, via EPPs in the early education field, and also through the expansion of local institutions for international students. To date, only 22% of the targeted job creation has been reached.

Finally, the ETP's NKEA on financial services was predicted to create 275,000 new jobs by 2020. Examples of EPPs include the development of the Islamic Finance segment and the increase in the range of financial product offerings available in the country. As of 2015, merely 11% of its target has been reached.

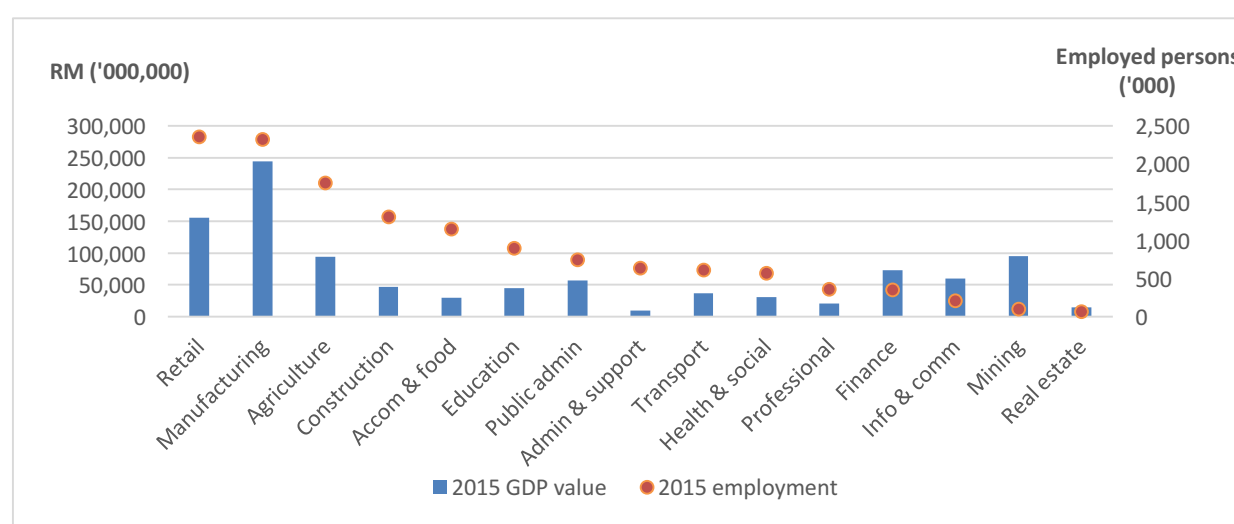
While having a strong retail sector in the economy is a positive sign, the employment it generates is usually in the mid-low skill range. Sectors that would have created a larger number of high-skill jobs such as education and financial services are not expanding as rapidly as projected and are not on track in meeting their job creation targets. Thus, it is not surprising that we are seeing a slower growth in high-skill employment in recent years.

Do sectors that generate higher GDP income employ more workers?

Industries that are more capital intensive tend to have a greater worker to output ratio. In other words, these sectors require fewer workers to produce the same GDP value compared to industries which are more labour intensive. For example, even though the oil and gas sector contributes up to 17% of the Malaysian GDP, it recruits less than 1% of the labour force (PEMANDU, 2016). On the other hand, the administration & support sector employs a larger number of workers but generates a much lower GDP value in relative terms.

As seen in Figure 8, Malaysia's finance sector has higher labour productivity, such that the share of GDP it contributes is higher than the share of the workforce it absorbs. Substantial growth is needed for this particular NKEA in order to meet its job-creation targets as laid out in table 2.

Figure 7: Comparing GDP income with number of employment in selected sectors



Source: DOSM, LFS 2015 and National Accounts 2015

2.2 Employment by occupation

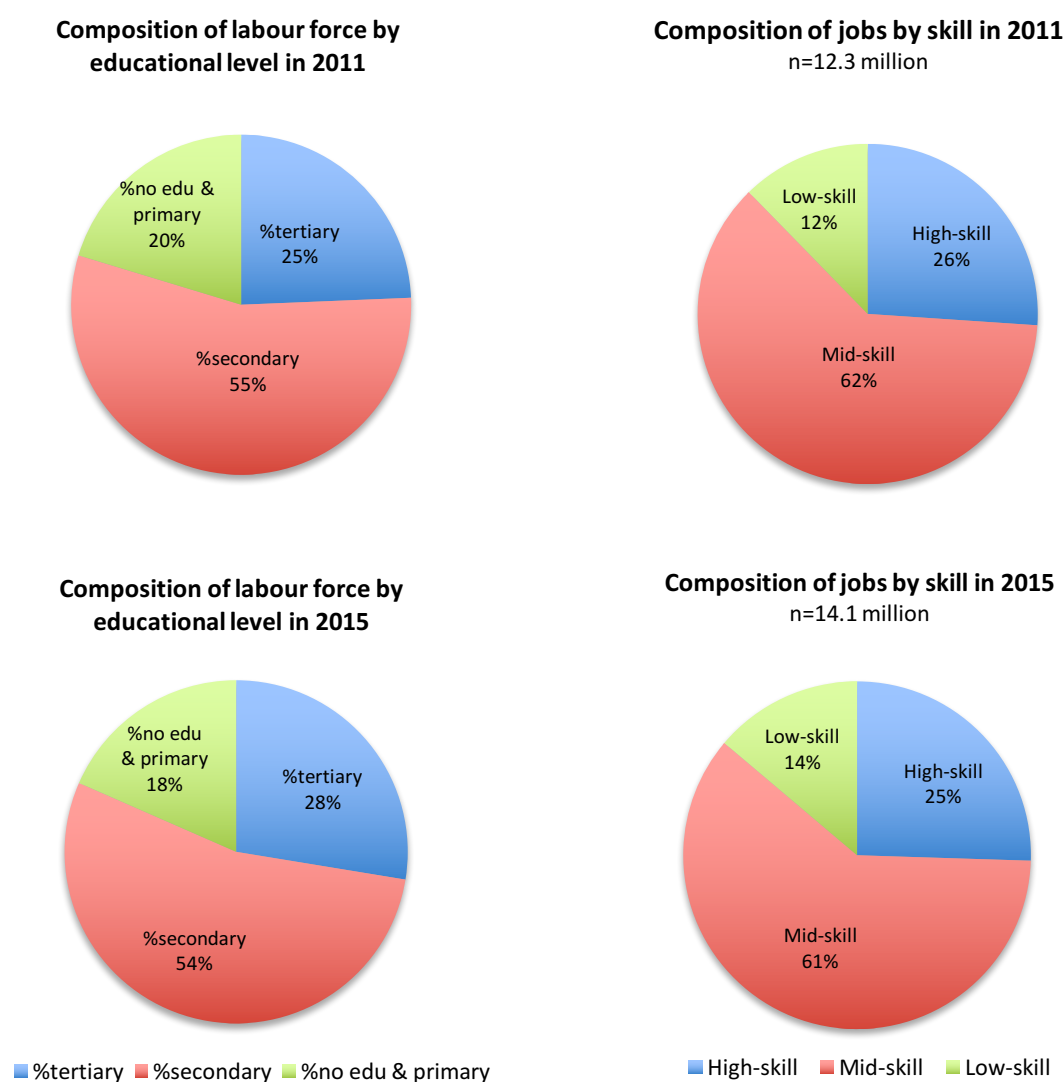
This section examines changes in the skill set and occupational patterns of our workforce over time. Shifts in the occupational structure of a country's workforce reflect the economy's transition through various stages of economic development. Generally, a developing economy experiences rising skill requirements such that the share of elementary occupations is reduced and offset by a rising proportion of high-skill occupational groups such as professionals and technicians. However, despite an increase in the supply of tertiary educated workforce, the trend of high skill employment remains stagnant against the ETP aspiration to shift workers away from low-skill employment (ILMIA, 2016b).

As could be seen from figure 9, Malaysian workers are becoming increasingly educated, with the proportion of workers possessing tertiary qualifications rising by 3% between 2011 and

2015, while the share of those with secondary or lower educational attainment has been shrinking over the same period.

However, despite the increasing share of high-skill workers available in the country, the overall share of high-skill employment in the economy has actually decreased over time. In 2011, high-skill employment took up 26% share of total jobs, but this figure has stagnated and even fell by 1% in 2015. On the other hand, the share of low-skill jobs in the country rose from 12% in 2011 to 14% in 2015.

Figure 8: Composition of labour force and employment by skill type (2011 & 2015)



Source: DOSM, LFS Time Series & author's calculations

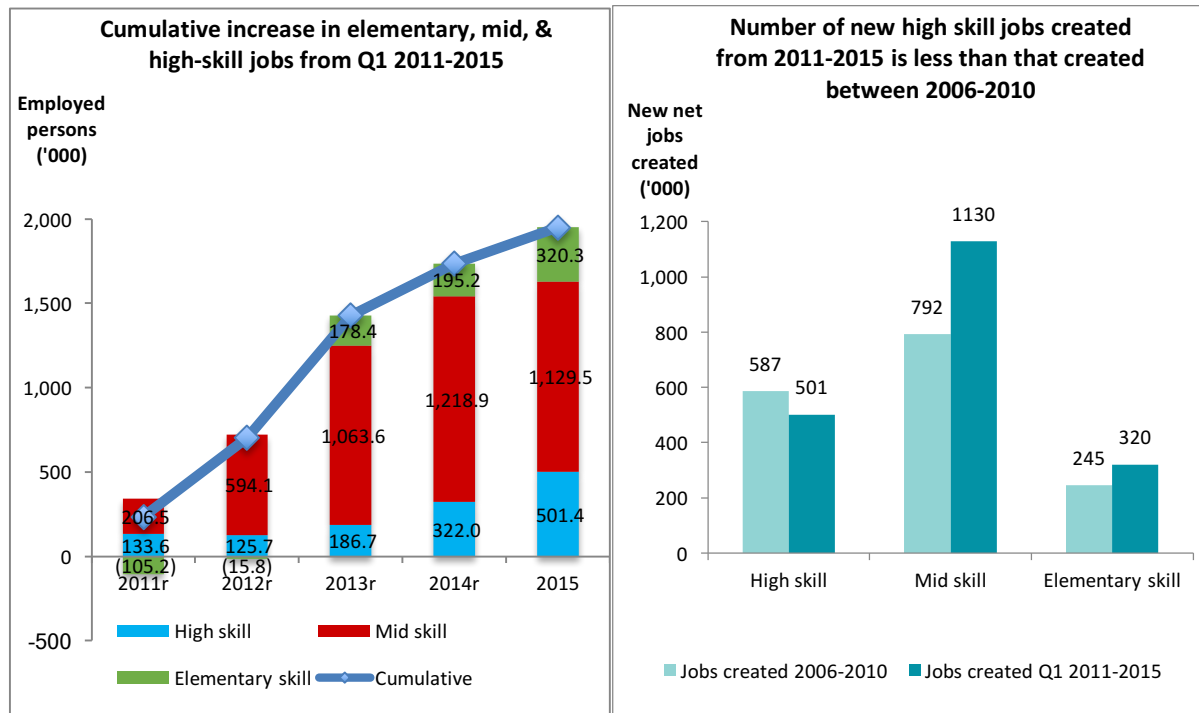
Comparing outcomes with ETP goals

As stated earlier, the ETP's main objective was to triple the composition of high-skill jobs in the economy by 2020. The ETP has also predicted that 54% of all new jobs created would match the labour potential of workers possessing tertiary level qualifications i.e. those with diploma or degree qualifications.

Figure 10 compares the skill-levels of the new jobs created in the economy for two periods, that is the pre-ETP period between 2006 and 2010 and the post-ETP period between 2011 and 2015. As could be seen from the graph on the right, the proportion of new employment that is high-skilled is merely 26% in the post-ETP period, compared to 36% in the pre-ETP period. A majority of jobs created are mid-skilled and are primarily in the sales and services occupational group. This is reflective of the skill requirements typically in demand in industries with high labour absorption, such as wholesale & retail, accommodation & food and health & social work. Industries that would have recruited a higher number of high-skill workers such as financial services, education and information & communications have not grown sufficiently to absorb the increased supply of educated workers.

It is interesting to note that the number of high-skilled jobs created was higher in the pre-ETP period between 2006 and 2010 compared to the number created in the post-ETP period between 2011 and 2015. There were 587,000 high-skill jobs created in the pre-ETP period but only 501,000 high-skill jobs created in the post-ETP period. At the same time, the number of elementary-skill jobs which were created was lower in the pre-ETP period compared to the post-ETP period, that is 245,000 compared to 320,000 in the five years following the ETP implementation.

Figure 9: Cumulative increase in jobs by skill (2006-2010, 2011 Q1-2015)



Source: Quarterly Report of LFS Q1 2011, LFS Time Series & author's calculations

Historical trends in skilled employment

One way of evaluating the ETP's impact on the labour market is to compare developments in the workforce before and after its launch. This section compares the historical trajectories of different skilled employment over three time periods to examine changes following the implementation of the ETP. Out of three sample time periods, the first two (2001-2005, 2006-2010) predate the launch of the ETP and depict the pre-ETP trajectory, while the third is after its implementation (2011-2015)³ and demonstrates the post-ETP trajectory.

The graphs below indicate that the CAGR rates of high-skill jobs in the two pre-ETP time periods are higher than in the post-ETP time period. Year-on-year growth in high-skill employment is at its highest in the five-year time frame prior to the introduction of ETP, at 5% between 2006 and 2010. Meanwhile, CAGR of Malaysian GDP income⁴ in the same time period was 4.2%. In comparison, the CAGR of high-skill jobs recorded in 2011-2015 slackened to 2.7%, even with a relatively higher CAGR in GDP of 5.3%.

On the other hand, the CAGR of low-skill jobs has increased over time, rising from 3.2% between 2001 and 2005 to 6.4% in recent years between 2011 and 2015. Low-skill

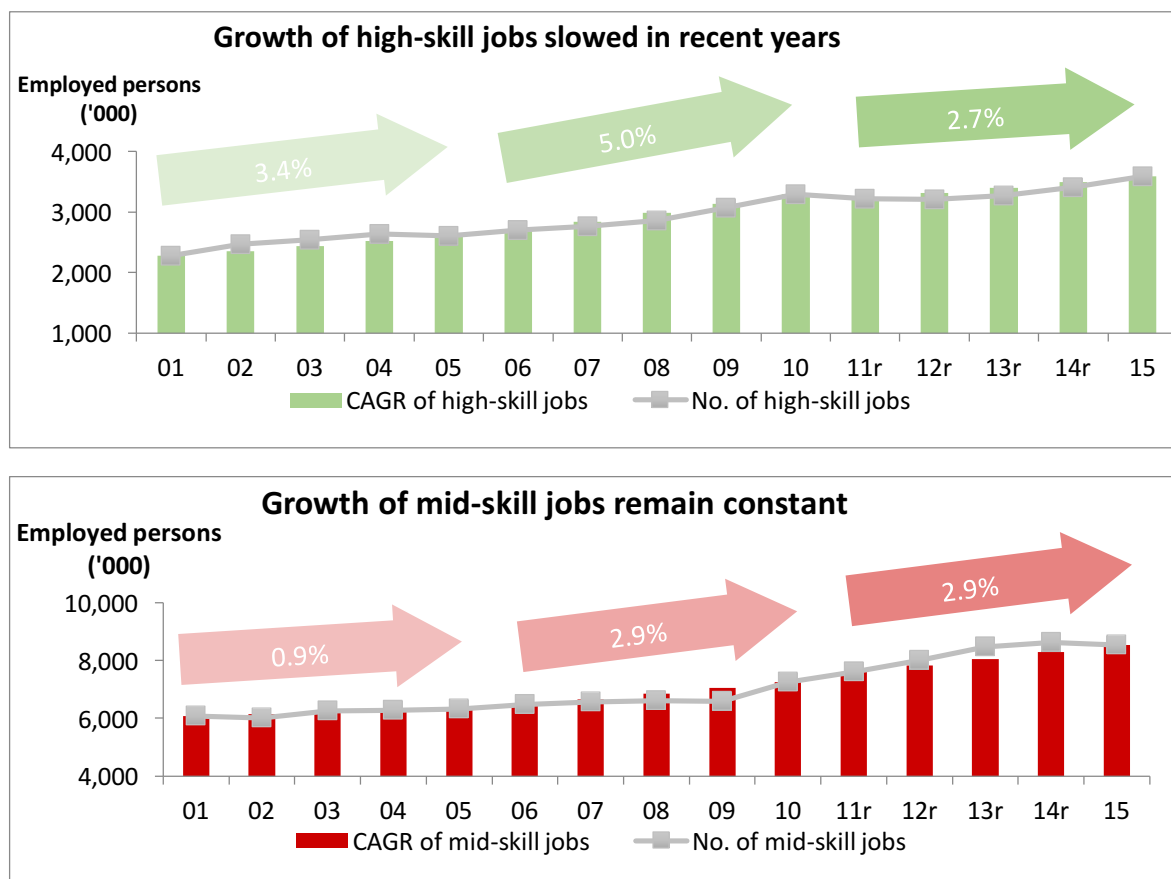
³ In 2011, there was a reclassification of occupations as in accordance to MASCO 2008 (Appendix). The time periods are organised such that the same classifications are used consistently for the entire 5 year period.

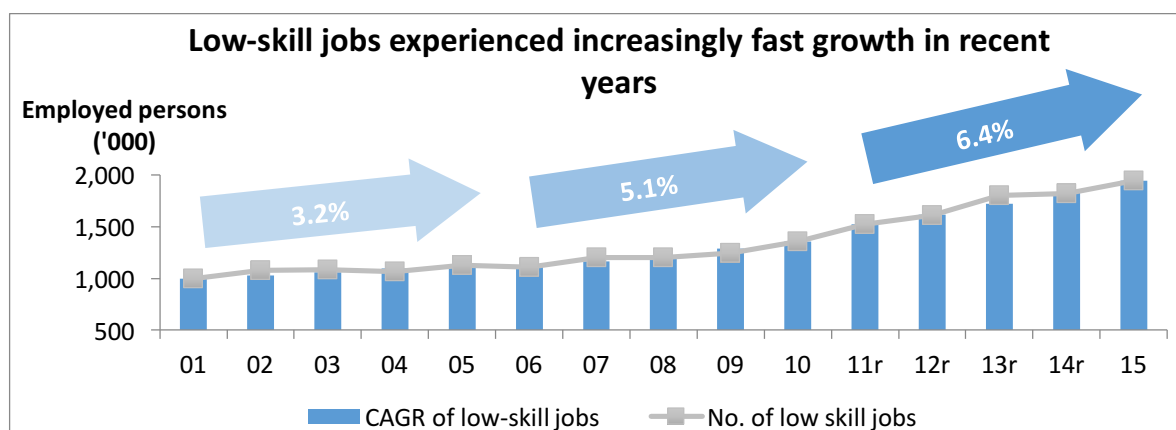
⁴ Using 2010=100.

employment is the fastest growing type of employment despite the rising education levels of our workforce.

These trends are symptoms of an overreliance on low-cost labour-intensive technologies in production, leading to a low demand for skilled workers in the economy. Moreover, active industries in the NKEA universe are ones that have low-skill job requirements. For example, under the Greater KL/Klang Valley NKEA, projects that were implemented are mostly construction-based and primarily recruit workers in elementary occupations. Similarly, both the wholesale & retail and tourism NKEAs carry out projects that largely employ mid-low skill workers as well. In short, while many NKEA projects seem to add a number of new jobs in the economy, they are not necessarily the type of jobs desired by our increasingly well-educated labour force.

Figure 10: CAGR of high-skill, mid-skill and low-skill jobs





Source: DOSM, LFS Time Series & author's calculations

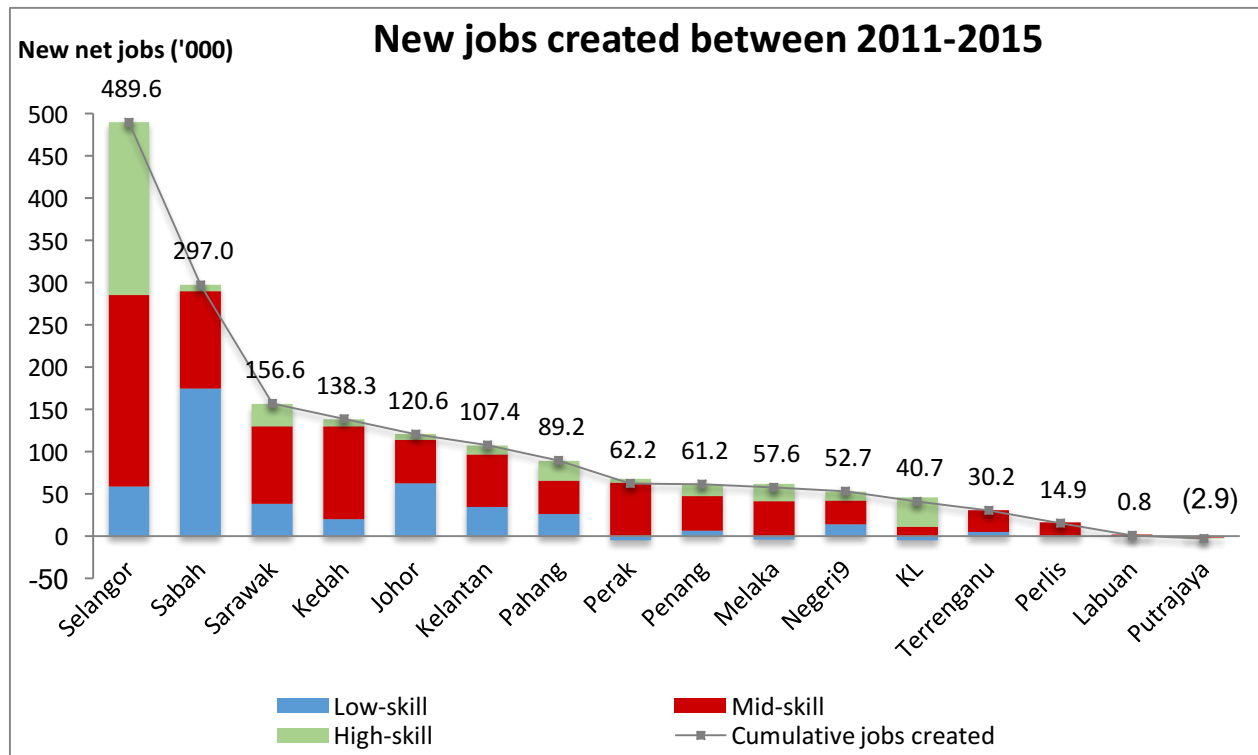
2.3 Geographical distribution of new jobs

Besides a disproportionate growth in the number and types of jobs created, the distribution of new jobs across the states also appears to be uneven. This is reflective of predictions made in 2010 that growth and job opportunities would be concentrated in Greater Kuala Lumpur and the Klang Valley region - "...the expectation is that some Malaysians from urban and rural areas would migrate (to Kuala Lumpur and Selangor) in order to participate in these opportunities" (ETP Roadmap 2010).

Figure 12 depicts the number of new jobs created by state between 2011 and 2015⁵. A large proportion of jobs created is based in Selangor. In fact, almost 30% of new employment in recent years was concentrated in this state. Sabah and Sarawak were next in line with 27% of new jobs created in these two states since over the same period. By contrast, job creation in Putrajaya was actually negative, a trend that reflects the downsizing of the public administration sector. Labuan, Perlis and Terengganu are states with the lowest net jobs created over the ETP time period. The weak job creation conditions in Labuan is reflective of the low number of jobs created in the financial services sector in the country since 2011. In Terengganu, the low job creation is most likely due to the slowdown in the oil and gas industry at the end of the 2011 to 2015 period as a result of the rapid decline in oil prices.

⁵ Note that the graph uses the 2011 yearly time series data rather than the Q1 data as in previous sections due to the lack of quarterly data breakdown by state.

Figure 11: Jobs created by state (2011-2015)



Source: DOSM, LFS Time Series & author's calculations

Migration of skilled workers to more developed states?

Job creation and skilled labour distribution patterns between 2011 and 2015 indicate a worrying trend of inequality among the states. From Figure 12 above, the majority of high-skill jobs created are concentrated in Selangor and KL, with the two states generating 64% of the new high-skill jobs. In Kuala Lumpur, 85% of the new jobs created in the state fall under the high-skill category, whereas in Selangor this share is 42%. Other states such as Melaka, Pahang and Penang also performed well in high-skill job creation, generating a 36%, 27% and 23% share respectively. However, this is not the case in Labuan, Perlis and Terengganu, where the number of high-skill jobs actually declined.

While many new jobs were created in Sabah, 59% of the jobs are low-skill. Likewise, Johor and Kelantan also witnessed a growth in jobs that were mostly low skill (50% and 32% respectively). By contrast, the number of low-skill jobs in Kuala Lumpur, Perak and Melaka has declined.

CAGR in skilled jobs across states

In terms of growth rates, Selangor, Terengganu and Negeri Sembilan saw the highest year-on-year percentage increase in employment. Melaka and Pahang, two states which are nearer to the Selangor/KL area, have witnessed an increasing share of high-skill jobs.

In the Peninsular region, border states like Kelantan, Kedah, Johor and Terengganu have also witnessed rising employment rates. However, the growth rate of high skill jobs in these states has remained low, even negative in the case of Terengganu. In these states, employment growth is primarily driven by an increase in low-skill jobs. In the long run, this could lead to inequitable employment opportunities and income disparities between states.

Table 3: CAGR of jobs by skill level (2011-2015)

	CAGR of all jobs	CAGR in high-skill jobs	CAGR in mid-skill jobs	CAGR in low-skill jobs
Sabah	4.70%	0.78%	2.99%	11.54%
Kelantan	4.60%	2.55%	3.76%	13.16%
Kedah	4.36%	1.42%	5.03%	5.34%
Selangor	4.34%	4.63%	3.91%	5.47%
Perlis	4.20%	-1.16%	6.65%	-0.27%
Melaka	3.98%	5.35%	4.45%	-2.76%
Sarawak	3.51%	3.24%	3.11%	5.52%
Pahang	3.48%	5.61%	2.32%	5.79%
Malaysia	3.31%	2.74%	2.90%	6.36%
Negeri9	3.03%	2.45%	2.58%	6.33%
Johor	2.00%	0.46%	1.28%	10.28%
Penang	1.92%	1.48%	2.08%	2.29%
Terengganu	1.88%	-0.17%	2.43%	2.64%
Perak	1.65%	0.55%	2.52%	-1.17%
KL	1.23%	2.73%	0.67%	-1.45%
Labuan	0.51%	-3.14%	1.91%	2.35%
Putrajaya	-1.80%	-1.64%	-1.99%	-1.71%

Source: DOSM, LFS Time Series & author's calculations

Table 4: Share of high, mid & low-skill jobs in each state (2011 & 2015)

Highlighted cells indicate an increased share in jobs of a certain skill category in 2015.

By skill	Share of high-skill jobs		Share of mid-skill jobs		Share of low-skill jobs	
	2011	2015	2011	2015	2011	2015
Putrajaya	49.0%	49.4%	43.7%	43.4%	7.2%	7.3%
Selangor	38.9%	39.3%	51.8%	51.0%	9.3%	9.7%
KL	37.6%	39.9%	51.1%	50.0%	11.3%	10.1%
Labuan	30.2%	26.1%	59.2%	62.5%	10.6%	11.4%
Penang	29.7%	29.2%	61.2%	61.6%	9.1%	9.3%
Malaysia	26.1%	25.5%	61.6%	60.7%	12.3%	13.8%
Melaka	26.1%	27.5%	63.1%	64.3%	10.8%	8.3%
Negeri9	24.8%	24.3%	63.0%	61.9%	12.2%	13.8%
Perlis	23.8%	19.3%	65.0%	71.4%	11.2%	9.4%
Johor	23.2%	21.8%	67.9%	66.0%	9.0%	12.2%
Terrenganu	22.6%	20.8%	66.4%	67.9%	11.0%	11.3%
Perak	22.2%	21.3%	65.5%	67.7%	12.3%	11.0%
Kedah	20.4%	18.2%	68.1%	69.9%	11.4%	11.9%
Sarawak	18.6%	18.4%	66.3%	65.3%	15.1%	16.3%
Kelantan	18.2%	16.8%	71.9%	69.6%	9.9%	13.6%
Pahang	16.0%	17.4%	66.9%	64.0%	17.0%	18.6%
Sabah	16.0%	13.8%	62.4%	58.4%	21.6%	27.8%

Source: DOSM, LFS Time Series & author's calculations

Table 5: Difference in the share of high, mid & low-skill jobs in each state (2011 & 2015)

	Share of high skill (+/-)	Share of mid skill (+/-)	Share of low skill (+/-)
Putrajaya	0.3%	-0.3%	0.0%
Selangor	0.4%	-0.9%	0.4%
KL	2.3%	-1.1%	-1.1%
Labuan	-4.2%	3.4%	0.8%
Penang	-0.5%	0.4%	0.1%
Malaysia	-0.6%	-1.0%	1.5%
Melaka	1.4%	1.1%	-2.5%
Negeri9	-0.6%	-1.1%	1.6%
Perlis	-4.5%	6.3%	-1.8%
Johor	-1.4%	-1.9%	3.3%
Terrenganu	-1.8%	1.4%	0.3%
Perak	-0.9%	2.3%	-1.3%
Kedah	-2.2%	1.8%	0.4%
Sarawak	-0.2%	-1.0%	1.2%
Kelantan	-1.4%	-2.3%	3.7%
Pahang	1.4%	-2.9%	1.6%
Sabah	-2.3%	-4.0%	6.2%

Source: DOSM, LFS Time Series & author's calculations

2.4 New jobs by gender

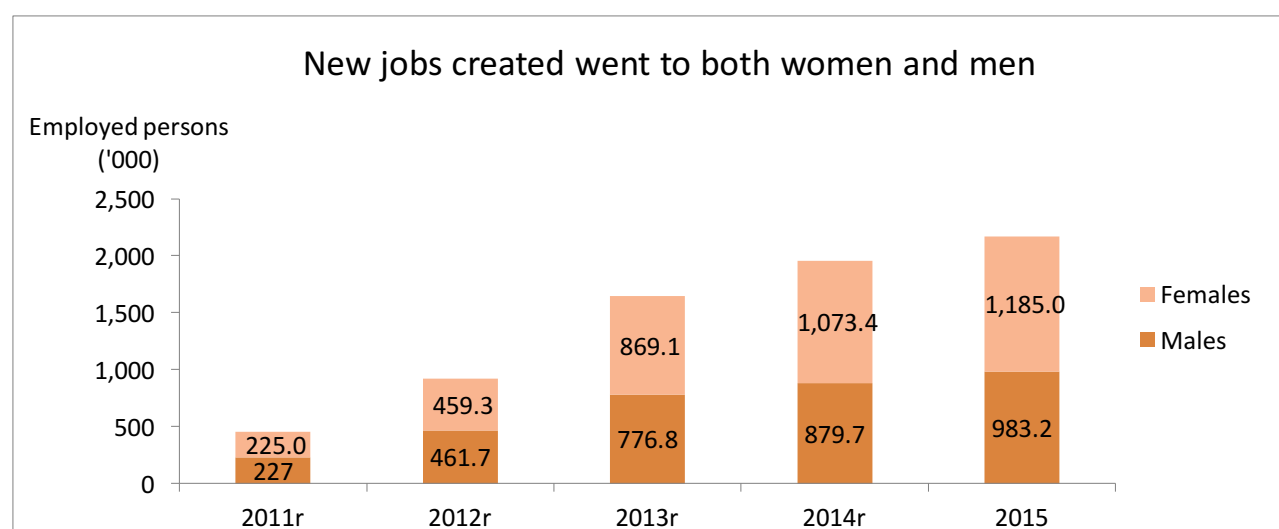
As of 2015, women comprised 38% of the total active labour force (DOSM, 2016a). Between 2011 and 2015, the number of women in the workforce rose from 4.3 million to 5.6 million, growing at a rate of 5.1% year-on-year. Female labour force participation rates (LFPR) rose from 46.8% in 2010 to 54.1% in 2015.

In Malaysia, female LFPR peaks at the 25-29 age group and falls thereafter. The 'double peak' pattern, common in more developed markets, is not present in Malaysia. A double peak happens when there is an initial peak in the typical childbearing years when women enter the labour force, then a drop as they marry and have children, after which there is another peak as they re-enter the workforce after their children reach a certain age. This scenario possibly only happens for women in managerial positions, as seen in Figure 15.

The distribution of the new employment created post-2010 indicates that 55% of the new jobs were taken by females. This is not that surprising given the increase in female LFPR.

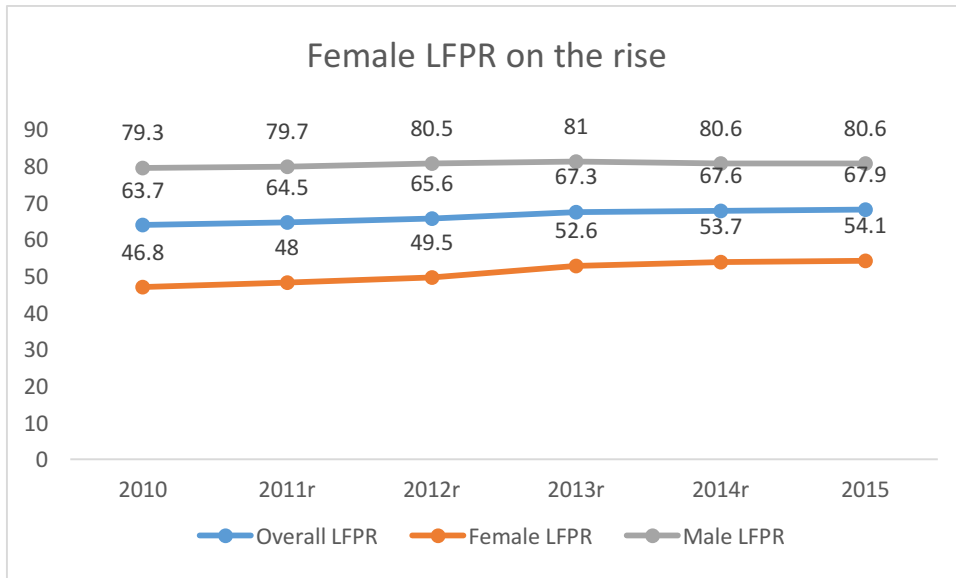
In 2015, Talent Corp worked closely with 20 employers to adopt flexible work arrangements as a strategy to retain women in the workforce, helping 256 women return to the workforce under the Career Comeback programme (PEMANDU, 2016). The target for LFPR for 2020 is 59%.

Figure 12: Cumulative increase in employment by gender (2010-2015)



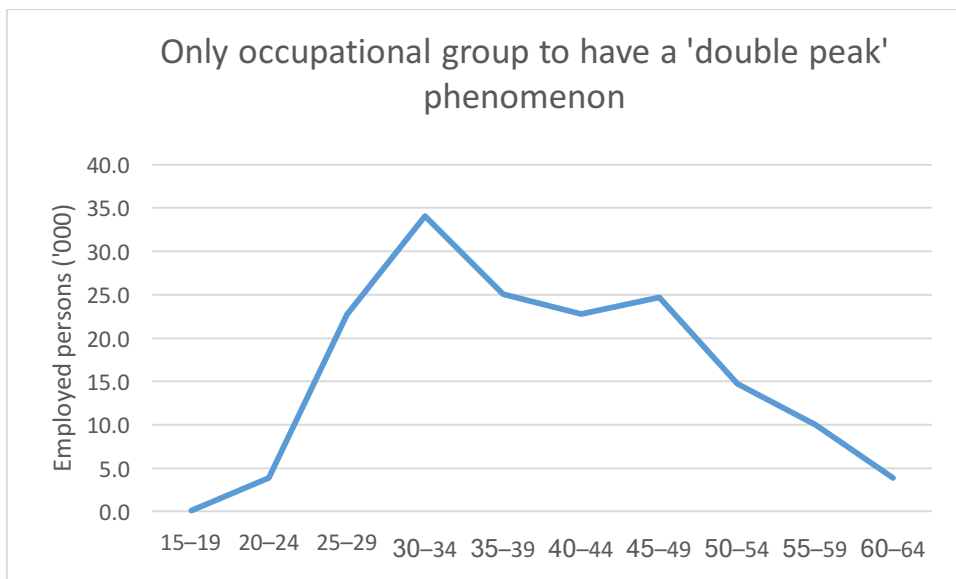
Source: DOSM, LFS Time Series & author's calculations

Figure 13: LFPR by gender



Source: DOSM, LFS Time Series

Figure 14: Women employed as managers by age group (2015)



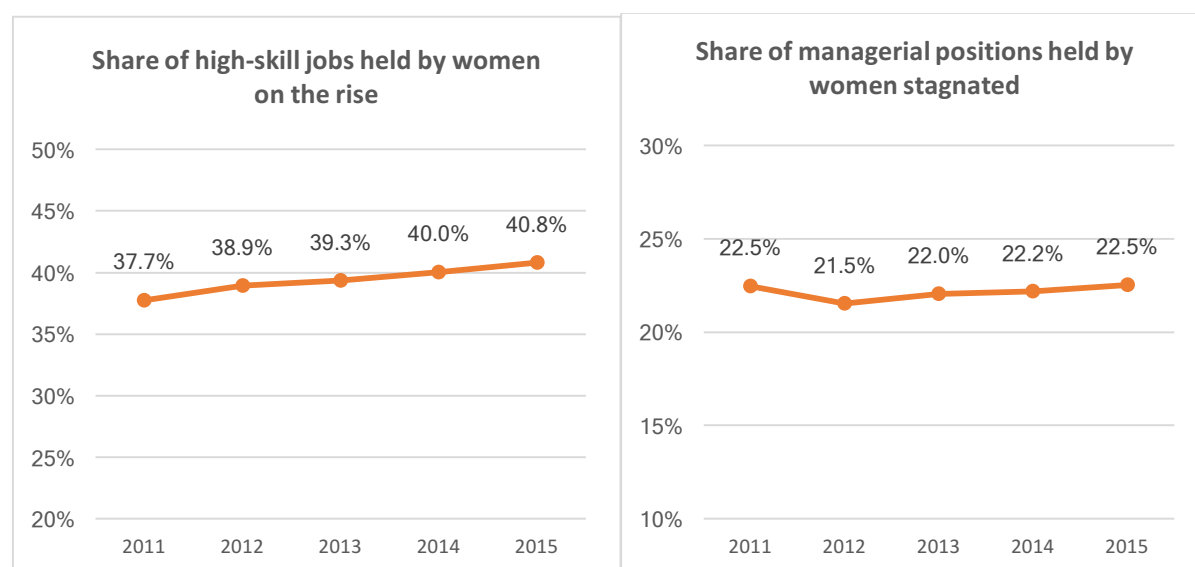
Source: DOSM, LFS 2015

Are Malaysian women having better jobs nowadays?

There is a rising share of women in high-skill jobs. In 2011, only 37.7% of managerial, professional and technician roles were held by women. In 2015, this proportion rose to 40.8%. The number of women with high-skill jobs has been growing at a CAGR of 4.7%, signalling some good progress on this front.

However, a more in-depth investigation of the data reveals that the proportion of women in managerial positions has largely stagnated. In 2011, the share of managerial positions held by women was 22.5%, a figure that was unchanged in 2015. In fact, between 2011 and 2015, the proportion of female managers actually dipped before rising back to the same level. This shows that while women are gaining access to high-skill employment, there may still be some barriers that prevent them from getting promoted to leadership positions. The stagnation in the share of managerial positions held by women is even more surprising given the increase in the percentage of high skill jobs held by women from 37.7% in 2011 to 40.8% in 2015.

Figure 15: Share of high-skill jobs & managerial jobs held by women

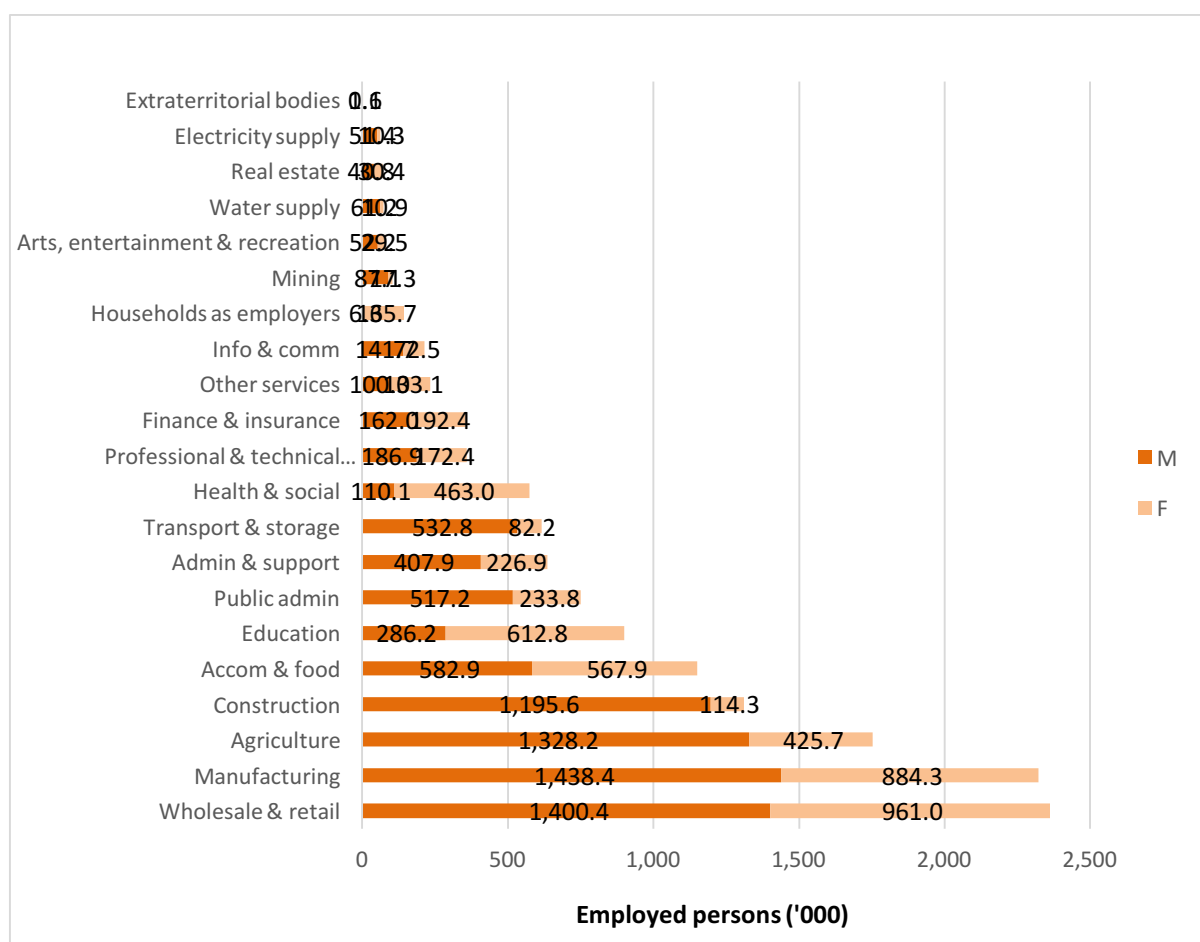


Source: DOSM, LFS Time Series & author's calculations

Sectorial breakdown

The sectoral breakdown in Figure 17 shows that the sectors with higher proportions of women employed include education, health & social work and finance & insurance.

Figure 16: Employment by sector & gender breakdown (2015)



Source: DOSM, LFS 2015

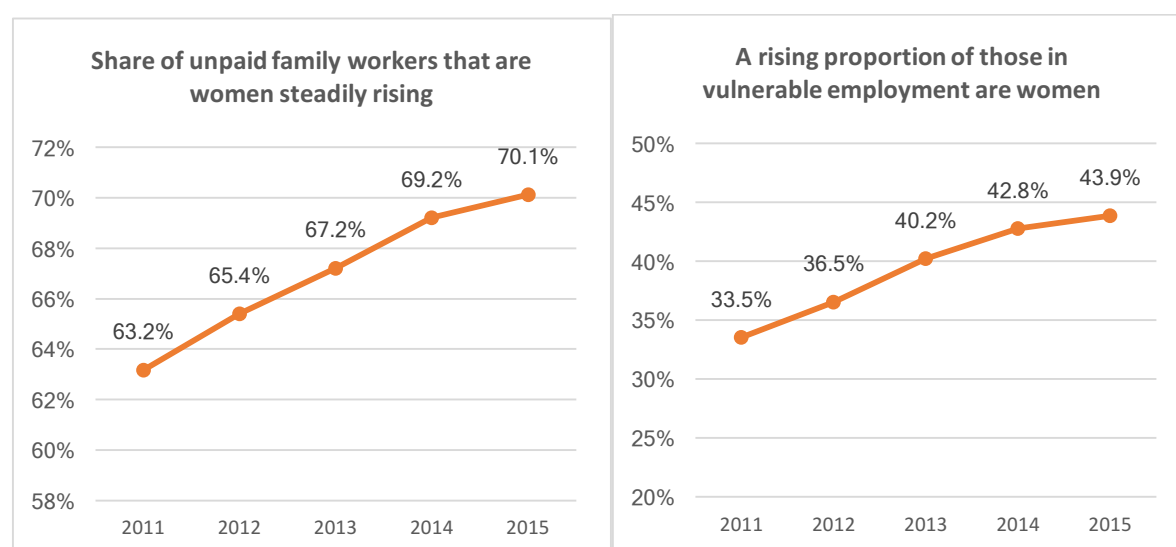
Increasing share of women among those in vulnerable employment

According to the ILO (2012), vulnerable employment is defined as the sum of the employment status groups of own-account workers and unpaid family workers. Those engaged in vulnerable employment tend to earn low wages, are less likely to have formal work arrangements and are thus more likely to lack decent working conditions or adequate social security.

Between 2011 and 2015, the share of female workers in vulnerable employment has increased from 34% to 44%. The number of women in vulnerable employment grew rapidly at a CAGR of 14%. In contrast, the number of men in vulnerable employment increased at a CAGR of only 2%. Thus, even though there is an increasing number of women participating in the economy, many of them are engaged in low productivity work that pays little.

Given that there are actually more women who hold university degrees than men, there is greater potential for women to take part in more productive and better paid work in the economy.

Figure 17: Share of unpaid family workers & those in vulnerable employment that are women (2011-2015)



Source: DOSM, LFS Time Series & author's calculations

2.5 Informal sector employment

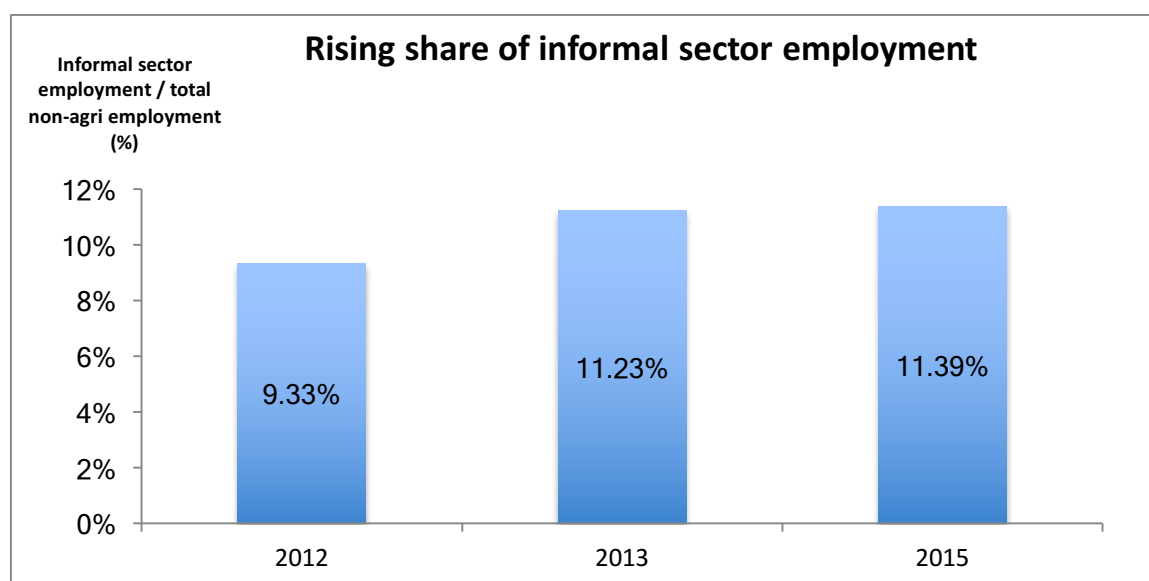
The informal sector⁶ consists of informal enterprise that is not registered with authoritative bodies and has fewer than 10 employees (DOSM, 2016b). Work in the informal sector tends to entail greater risk and instability, provide lower wages and lack the legal protections or employment benefits found in the formal sector. Thus, the share of informal sector employment is an important indicator regarding the quality of work in an economy.

In recent years, the share of employment in the informal sector⁷ have been rising relative to non-agricultural employment in general. According to the latest Informal Sector Workforce Survey Report, the proportion of workers in the informal sector has increased from 9.3% in 2012 to 11.4% to 2015. The number of employment in the informal sector grew at a CAGR of 10.3% over a period of three years. This trend of increasing employment in the informal sector might be worrying as this means that a growing proportion of the working population are employed with little social or legal protection. (ILO, 2012).

⁶ The informal sector consists of unregistered and/or small unincorporated private enterprises engaged in the production of goods or services for sale or barter. The enterprises typically operate on a small scale at a low level of organization, with little or no division between labour and capital as factors of production. Labour relations are based mostly on casual employment, kinship or personal and social relations (DOSM, 2015b)

⁷ Share of employment in the informal sector(%) = (employment in informal sector/employment in non-agricultural sector) *100

Figure 18: Share of informal sector employment in the non-agricultural sector



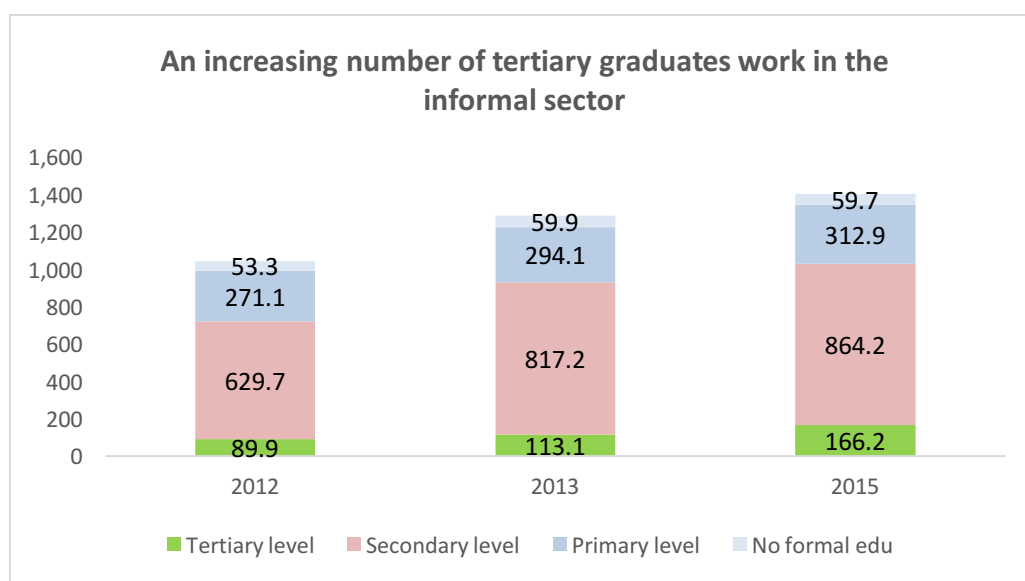
Source: DOSM, Informal Sector Workforce Survey Report (2013 & 2015)

More tertiary graduates taking jobs in the informal sector

An increasing share of jobs in the informal sector are held by those with tertiary education. The percentage of tertiary educated employees in the informal sector was 8.6% of overall share in 2012, rising to 11.8% in 2015. On the other hand, the share of employees with primary-level qualifications or no formal education declined from 31.1% in 2012 to 26.6% in 2015.

As shown in Figure 20 below, the number of tertiary graduates employed in the informal sector has almost doubled in the space of three years, growing at a CAGR of 23%. In comparison, the size of our tertiary educated workforce grew at a CAGR of 8%, and the number of workers in the informal sector grew at a CAGR of 10%. This suggests that there may be insufficient jobs in the formal sector for the well-educated cohort such that they have to turn to the informal sector for work. Given that only 5% of the jobs in the informal sector are in high-skill occupational groups, there are likely to be issues of underemployment as well.

Figure 19: Informal sector workers by educational level



Source: DOSM, Informal Sector Workforce Survey Report (2013 & 2015)

3.0 Unemployment and Underemployment

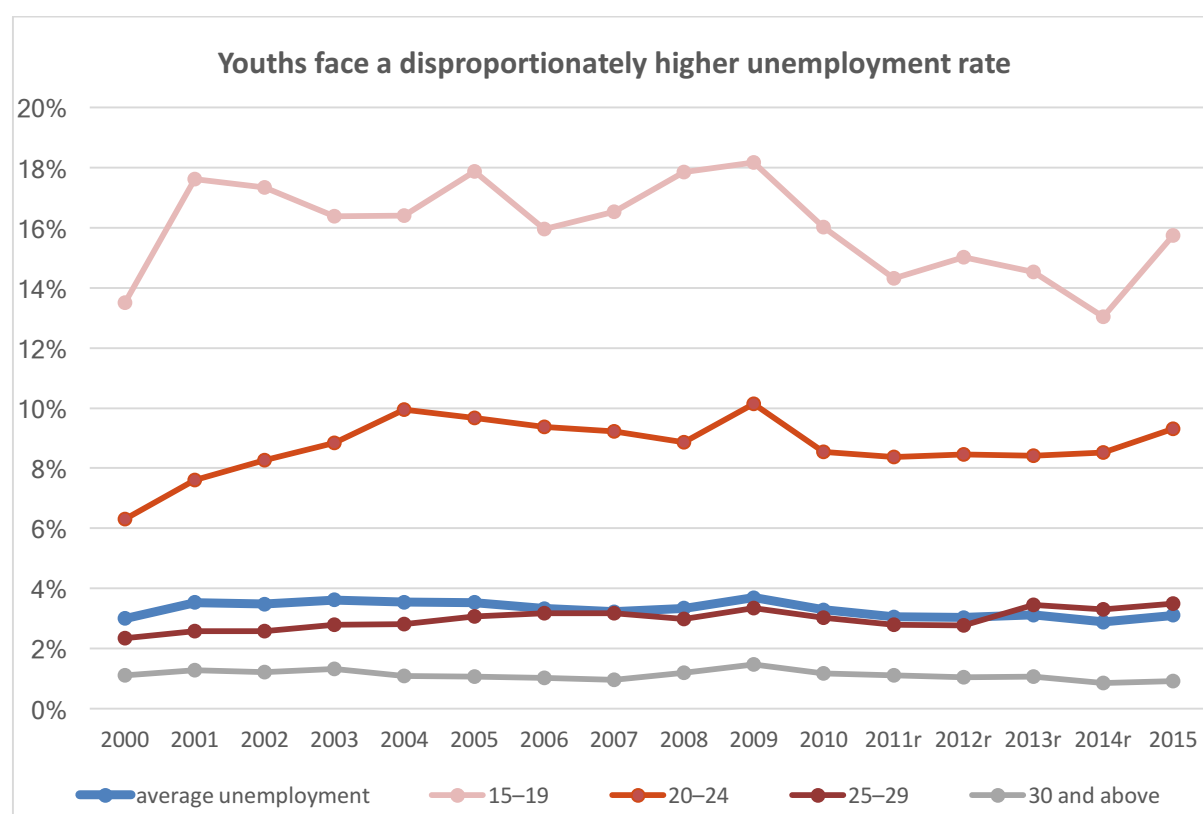
Overall unemployment rate not reflective of youth plight

The average unemployment rate in Malaysia has fluctuated between 2.8% to 3.7% over the past decade. Although the overall unemployment rate in Malaysia has remained low, especially by international standards, anecdotal evidence and newspaper reports of large numbers of unemployed graduates are worrying and point to ‘hidden’ unemployment or underemployment, especially among the youth segment. As shown in Figure 21 below, the youth unemployment rate is three to five times higher than that of the overall unemployment rate. As of 2015, 450,300 people were unable to secure a job, of which 365,200 are below the age of 30.

Youth unemployment is generally at least two times the overall rate (OECD, 2015). Frictional unemployment is always present as new entrants may be temporarily unemployed when they began their job search. In tough times, young people are often the first to lose out as they are relatively inexperienced and less skilled. In Malaysia, the unemployment rate for those under the age of 30 years was 7% last year as compared to an overall rate of 3.1%. In comparison, the youth unemployment rate of our immediate neighbours Singapore and Thailand is at 7.2% and 3.3% respectively. This is compared to the overall unemployment rate in Singapore and Thailand at 2.4% (Ministry of Manpower, 2016) and 0.9% (National Statistics Office, 2016) respectively.

While it is not unusual to have a youth unemployment rate that is higher than the national average unemployment rate, what might be of concern is the gradually widening gap between the unemployment rate for those between 20-29 years and the national average. In 2000, the unemployment rate for those between the ages of 20-24 years was only two times the overall rate, and that for the 25-29 age group was actually lower than the overall rate. In 2015, the unemployment rate for those in the 20-24 age group increased to become three times that of the overall rate. The unemployment rate for the 25-29 age cohort, previously hovering below the overall rate, has risen above it from 2013 onwards. This is despite the fact that many between the ages of 25-29 years have tertiary education and should be well qualified for various jobs openings.

Figure 20: Unemployment rate by age groups



Source: DOSM, LFS Time Series

In 2016, the Khazanah Research Institute released a report stating that “rising unemployment among the 20-29 age group cohort could signal structural⁸ rather than

⁸ There are mainly three types of unemployment: structural, where there is a mismatch between the requirements of the employers and the properties of the unemployed; frictional, when people are temporarily between jobs, searching for new ones; and cyclical, when there is not enough aggregate demand in the economy to provide jobs for everyone who wants to work.

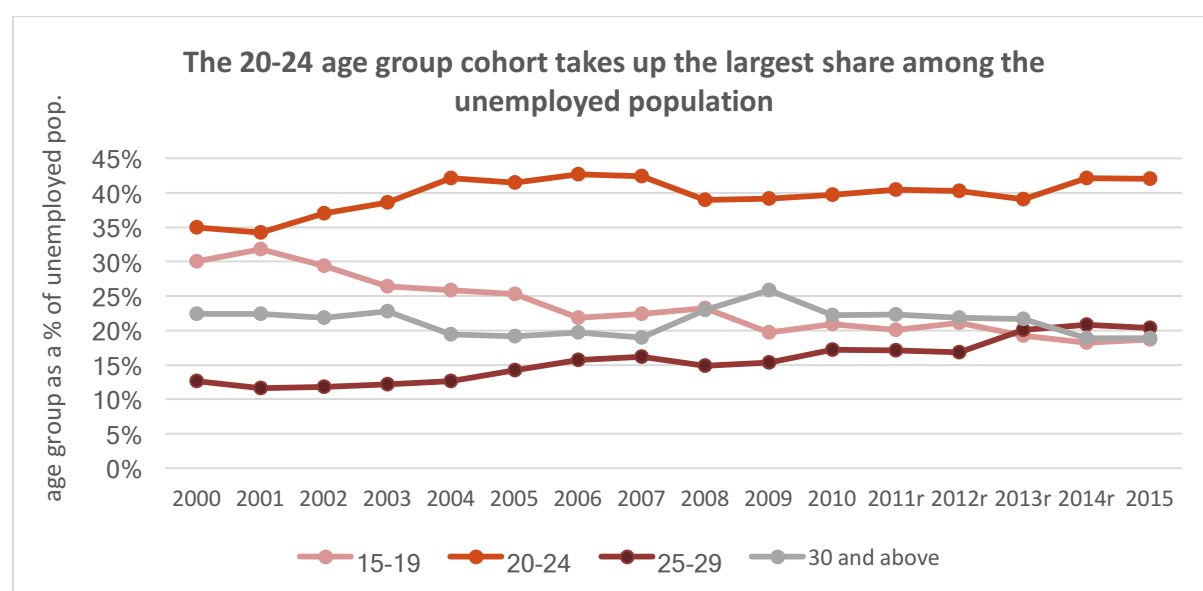
cyclical challenges. The World Bank has highlighted that Malaysian firms consistently report difficulties in sourcing talent as one of their top business challenges”. Among the skills gaps listed are basic numeracy and literacy skills as well as ‘softer’ skills such as analytical thinking, communication and problem-solving abilities. It seems that many of our graduates do not possess the type of skills demanded by employers (Free Malaysia Today, 2016).

Rising share of youths among the unemployed

The 15-19 age group cohort represents a declining share of the unemployed as more youths in this age group are choosing to continue on with their studies rather than work, as could be seen through the declining LFPR for this age group in the graph below. While the LFPR for those between 20-24 years has actually been decreasing, they comprise a large and growing share among the unemployed population.

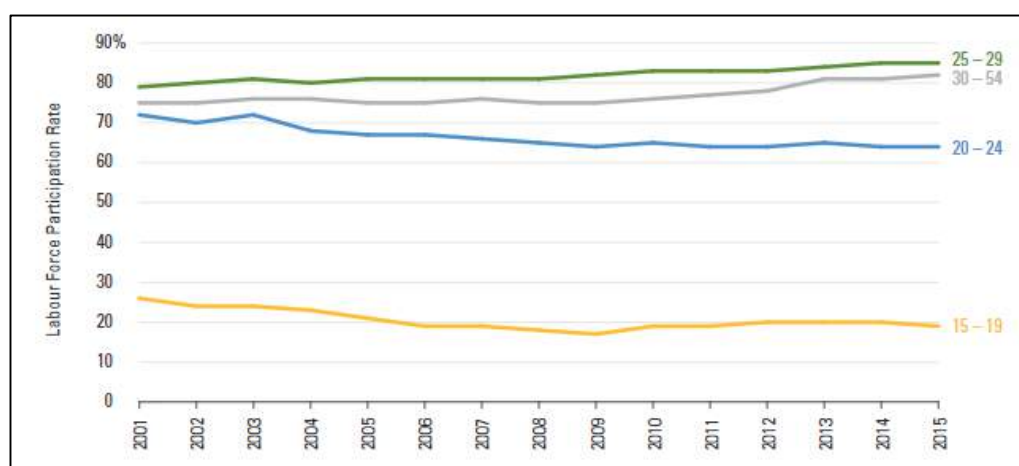
Those below 30 are at the very beginning of their careers and in the prime age for productive employment. The fact that there is a rising share of youths facing joblessness represents a substantial opportunity cost in terms of wasted capacity and lost earnings that could have contributed to the tax base and strength of our economy. In addition, staying unemployed could have ripple effects for the youths’ lifelong earning potential. Being unemployed when young potentially leaves a “wage scar” in later life in terms of subsequent lower pay and reduced life chances as employers may consider periods of unemployment on someone’s CV to be a negative signal (The Economist, 2011).

Figure 21: Proportion of the unemployed by age group



Source: DOSM, LFS Time Series

Figure 22: LFPR by age group (2001-2015)



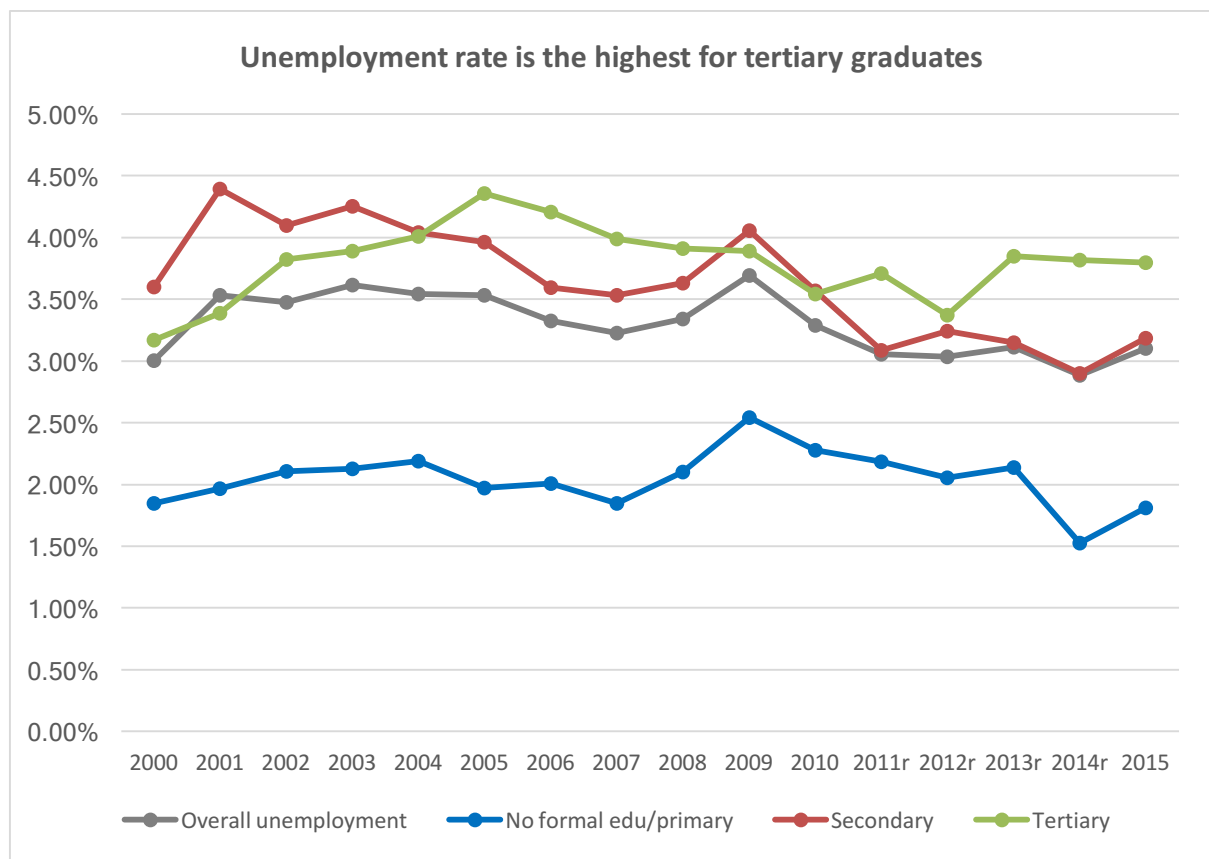
Source: Khazanah Research Institute, 2016

Tertiary graduates face a higher than average unemployment rate

The unemployment rate for those with primary level education or no formal education had never risen above 2.6% and always remained below overall unemployment rate. On the other hand, the gap between the average unemployment rate and those for tertiary graduates have gradually increased over the years, from a difference of 0.2% in 2000 to 0.7% in 2015. For the periods between 2004-2008 and 2011-2015, tertiary graduates face a higher unemployment rate than both secondary and primary educated workers. Those with tertiary education are perhaps more selective with jobs and may choose to forego employment opportunities that they may be overqualified for. Rising education levels among our labour force meant that there is a larger pool of well-educated graduates to choose from and this meant more intense competition for these graduates.

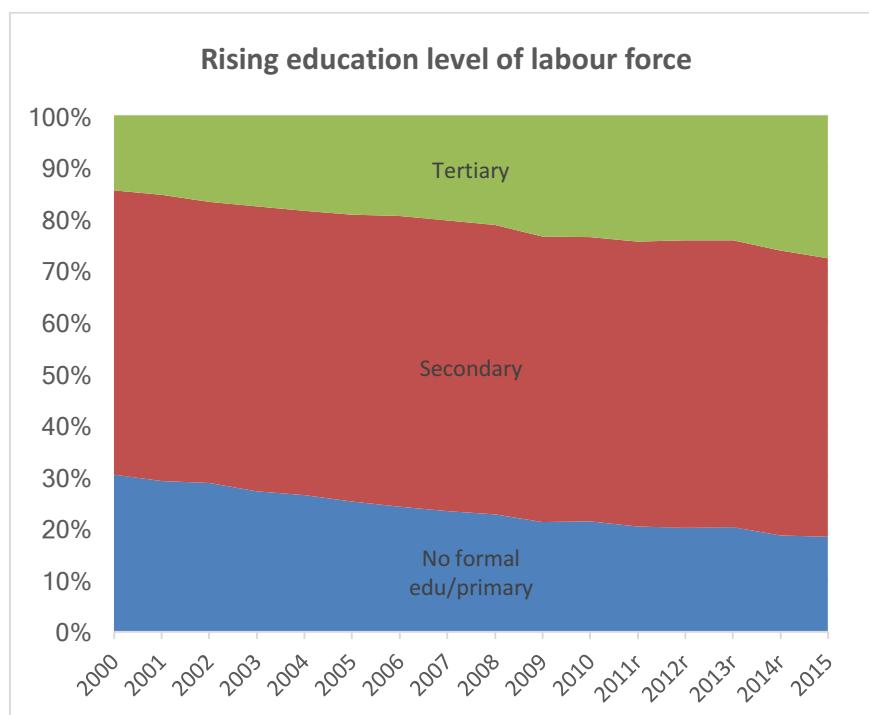
As seen from the previous section on informal sector employment, it is possible that many graduates, having been unable to find jobs in the formal sector, have turned to the informal sector to earn a living.

Figure 23: Unemployment rate by educational level



Source: DOSM, LFS Time Series

Figure 24: Labour force by education level



3.1 Youth Underemployment

Underemployment a growing trend among university degree holders

In this section, we focus on the quality of employment our tertiary graduates enter into. Underemployment is typically defined as the condition in which people in a labour force are employed at less than full-time or at jobs inadequate with respect to their training (McKee-Ryan & Harvey, 2011). In this report, we focus on the issue of ‘overqualification’, where workers possess surplus formal education relative to the job demands or requirements.

As seen on Figure 26, it is evident that the number of high-skill jobs in the economy are not growing at a high enough rate to absorb our increasing supply of tertiary graduates. In 2006, the number of people employed as managers, professionals or technicians was 2.7 million, while the number of our tertiary educated labour force was only 2.1 million. This suggests that those who did not go through tertiary education were able to compete for high-skill jobs due to a lack of well-educated labour force available at the time. However, from 2012 onwards, the number of tertiary graduates in our labour force has surpassed the number of high-skill employment in the economy.

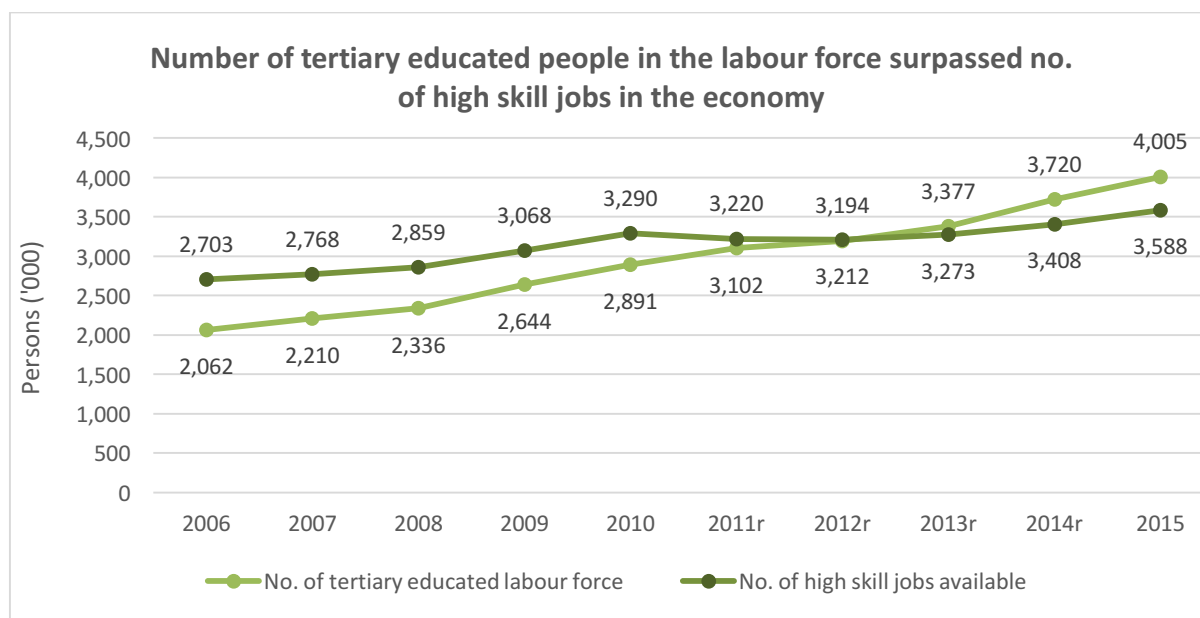
Figure 27 presents the proportion of tertiary graduates working in mid or low-skill occupations using data from the Labour Force Survey and the Tracer studies. The LFS depicts underemployment⁹ for all tertiary graduates while the Tracer studies presents underemployment specifically for fresh graduates. Underemployment is more severe for diploma holders, and from 2012 onwards, more than half of the new diploma graduates accepted jobs that are in mid-low skill occupations which typically do not require tertiary education, especially that of clerical support roles. The proportion of underemployed fresh graduates with a degree is lower, and remained below 50% as of 2014. However, the percentage of graduates in employment they are overqualified for is rapidly increasing. A rising number of graduates are entering sales and services occupations that generally only require high-school training (MoHE, 2015).

Interestingly, the proportion of newly graduated degree holders who are underemployed was 27.7% in 2011, below that of the overall underemployment rate across all tertiary graduates at 29.3%. However, from 2013 onwards, the proportion of freshly graduated degree holders who are underemployed rose above that for all tertiary graduates. This shows how underemployment is increasingly problematic for fresh graduates who have little to no work experience. According to the 2014 Labour Force Survey, out of the 3.5 million tertiary educated workers employed in the economy, more than 1.1 million of them

⁹ Number of tertiary educated persons employed in occupations that are not included in the high-skill group, i.e. (managers, professionals, associated professionals and technicians) / total number of tertiary educated employed persons.

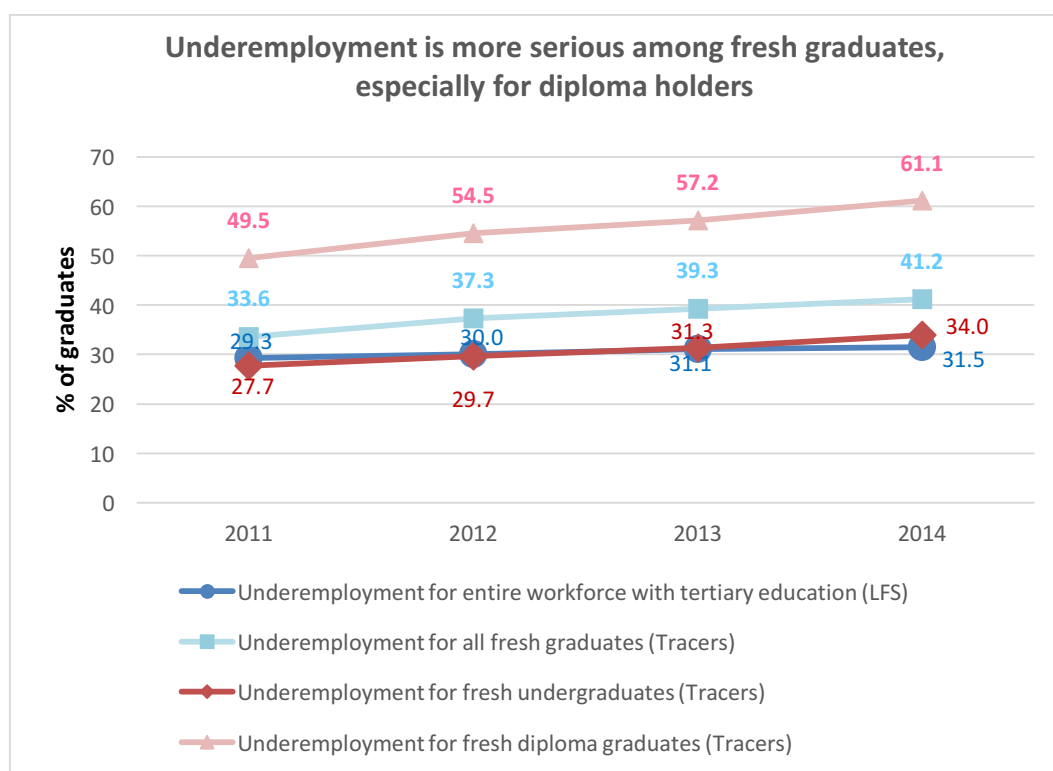
are employed in mid or low-skill occupations that did not require an education level beyond that of high-school.

Figure 25: Number of tertiary educated workers & high-skill jobs



Source: DOSM, LFS Time Series

Figure 26: Proportion of tertiary educated workers in mid-low skill employment



An increasing percentage of graduates working in mid or low-skill occupations clearly indicates a mismatch of skills and occupation in the economy. We may be supplying well-educated workers the economy does not demand or is not ready to absorb. As seen in the earlier section of the report, the number of high-skill occupations is not growing at the rate mid or low-skill occupations are. Based on employer surveys, it would also seem that our universities do not produce the type of workers employers want. Many graduates lack language fluency and fail to demonstrate the type of character or soft-skills valued in a work environment (Free Malaysia Today, 2015).

Underemployment bears negative consequences for both the economy and the individuals themselves. The money and time invested in a higher education did not directly translate into increased productivity in the country as a large percentage of graduates would not utilise their knowledge or skills to their capacity when working in mid or low-skill occupations. For the individuals themselves, there may be a vicious cycle of 'learned helplessness' as underemployed workers face a stigma from potential employers such that it affects their ability to seek an employment fitting their qualifications in the future (The Economist, 2011).

3.3 Demand for civil service jobs as a sign of underemployment¹⁰

If the ETP was successful in creating a vibrant and growing economy that is driven by the private sector, this should result in the creation of many desirable and well-paying jobs in the private sector. But according to figures released by the Public Service Commission (or Suruhanjaya Perkhidmatan Awam (SPA)), the demand for public sector jobs is at an unbelievably high level and far outstrips the supply of such jobs.

From 2011 to 2015, the SPA received over 1 million job applications for entry into civil service. This figure reached a high of 2.1 million in 2013 before falling to 1.59m in 2014 and increasing to 1.63m in 2015 (See Table 6 below). These are very high figures especially considering that the number of civil servants in Malaysia was 1.6m in 2015. While jobs in the civil service will continue to be desirable because of job security and other perks (such as medical care, various allowances and government pensions), this high demand is an indicator that the private sector is not offering enough well-paying jobs to stem the demand for public sector jobs.

Table 6: Number of applications, appointments and % of appointments to civil service jobs, 2011 to 2015

	2011	2012	2013	2014	2015
No of Applications	1,123,692	1,085,877	2,098,736	1,588,252	1,629,882

¹⁰ The following is an excerpt from Ong's (2016) media statement.

No of Appointments	46,503	47,335	38,659	37,707	30,964
% of Appointments	4.1%	4.4%	1.8%	2.4%	1.9%

Source: Public Service Commission via data.gov.my

Equally worrying is the fact that the actual number of civil service jobs being offered has decreased from 46,503 in 2011 to 30,964 in 2015. This means that only a small handful of applications are successful in entering into the civil service and this % has decreased from 4.1% in 2011 to a mere 1.9% in 2015. This raises the question of what jobs the unsuccessful applications end up doing.

Among those successful applicants, a majority (plurality, in some years) of them possess up to certificate level qualification, at most. For example, in 2015, 54% of the successful applicants were hired for jobs which required only a PMR, SPM or Certificate level qualification (See Table 7 below).

This is a clear indicator that those who desire civil service jobs the most are also those with the lowest qualifications. This is not surprising given that many jobs at the bottom of the economic ladder have been taken up by foreign labour. The only place where foreign labour cannot hold jobs is in the civil service, hence the high number of applications and also appointments at this level.

Table 7: Breakdown of civil service appointments by qualification, 2011 to 2015

	Qualification	Year				
		2011	2012	2013	2014	2015
1	Degree (Pengurusan dan Profesional)	28%	20%	23%	27%	21%
2	Diploma (Sokongan I)	14%	22%	33%	26%	25%
3	Certificate, PMR and SPM (Sokongan II)	58%	58%	44%	47%	54%

Source: Public Service Commission via data.gov.my

This can be seen from job application statistics for specific jobs lifted from the Public Service Commission website. Figure 28 shows the applications and appointments for the position of a general assistant at the Grade 11 level which pays approximately RM1200 as a monthly salary and requires a minimum of PMR as an academic qualification. There were 87281 applicants for 16 positions (0.02%).

Figure 27: Applications and Appointments for the position of a General Assistant (Grade 11)

8/23/2016

STATISTIK MENGIKUT JAWATAN

MAKLUMAT JAWATAN

SS20160039

Kementerian /Jabatan : PEJABAT SETIAUSAHA KERAJAAN NEGERI PERLIS

Jawatan	Bil. Permohonan	Bil. Dipanggil Temuduga	Bil. Kekosongan Jawatan	Bil. Calon Simpanan
PEMBANTU AWAM GRED H11	87281	211	16	6

Figure 29 shows the number of applicants and appointments for the position of a food preparation assistant at the Grade 17 level which pays approximately RM1400 as a monthly salary and requires a minimum of SPM as an academic qualification. There were 65041 applications for 24 positions (0.04%).

Figure 28: Applications and Appointments for the position of a Food Preparation Assistant (Grade 17)

6/17/2016

STATISTIK MENGIKUT JAWATAN

MAKLUMAT JAWATAN

SS20160035

Kementerian /Jabatan : PELBAGAI JABATAN

Jawatan	Bil. Permohonan	Bil. Dipanggil Temuduga	Bil. Kekosongan Jawatan	Bil. Calon Simpanan
PEMBANTU PENYEDIAAN MAKANAN GRED N17	65041	759	24	50

Figure 30 shows the applications and appointments for the position of an IT officer at the Grade 41 level which pays approximately RM2300 a month and requires a minimum of a degree as an academic qualification. There were 17895 applicants for 61 positions (0.34%).

Figure 29: Applications and Appointments for the position of IT Officer (Grade 41)

6/17/2016

STATISTIK MENGIKUT JAWATAN

MAKLUMAT JAWATAN

SM20160015

Kementerian /Jabatan : JABATAN PERKHIDMATAN AWAM

Jawatan	Bil. Permohonan	Bil. Dipanggil Temuduga	Bil. Kekosongan Jawatan	Bil. Calon Simpanan
PEGAWAI TEKNOLOGI MAKLUMAT GRED F41	17895	1283	61	150

Figures 28 to 30 show that the demand for public sector jobs far outstrips supply and that the mismatch between demand and supply is at its most acute at the level which requires the lowest academic qualification.

The extraordinarily high demand for civil service jobs at the bottom of the qualifications ladder is partly as a result of Malaysians being ‘pushed out’ of the low skilled job market which is now almost exclusively the domain of foreign workers. The only job marketplace left where low skilled foreign workers cannot replace Malaysian workers is in the civil service. The high mismatch between the demand and supply of civil service jobs raises other important questions including:

- (i) Whether the ‘freeze’ in civil service intake will lead to a further increase in the number and percentage of workers in the informal and also vulnerable economic sectors
- (ii) What kinds of job options are available to the vast majority of applicants who fail to get employment in the civil service

3.3 Government support for unemployed youths and fresh graduates

Over the past five years, the government has implemented training and work placement programmes such as Accelerated Skills Enhancement Training (ASET), Skim Latihan 1Malaysia (SL1M), and Graduate Employability Management Scheme (GEMs) with the mandate to help unemployed and underemployed youths. In 2015, TalentCorp provided tax incentives on expenses incurred by companies in hosting 17,967 undergraduates for structured internships through various programmes (PEMANDU, 2016). This helped 6% of the 281,100 unemployed youths between the ages of 20-29 years last year. However, it is unclear if the work placement increased the employability of these participating youths.

Accelerated Skills Enhancement Training (ASET)

ASET was launched with the stated objective to train unemployed graduates, upscale their existing skillset by providing them with internationally certified training, and support the broader economy in generating a competent workforce with specialised skills in a short duration (The Star, 2012). Implemented in 2012, contracts worth a total of RM60 million were awarded to HR and education providers to design and conduct courses ranging from nursing and tourism to accounting (The Star, 2012). The courses could last between 22 days to 5 months and were sponsored by the PSMB. A small allowance of up to RM500 was given to participants during the programme.

As the programme contracted various education providers, there was some inconsistency in terms of eligibility criteria, course duration and training purposes. AXSEL, one of the major contracted providers, only accepted applicants who were employed and could attend weekend classes (Appendix III). This seems counterproductive as the programme was meant to help unemployed youths and according to a parliamentary reply, was still supposed to be for the benefit of unemployed youths as late as 2015 (Sinar, 2015). However, this training programme is currently no longer functional.

Skim Latihan 1Malaysia (SL1M)

SL1M began in 2011 with an allocation of RM500 million. It was intended to curb unemployment among new university graduates and to increase the employability of graduates with the help of GLCs and the private sector. Participants would go through 1-2 months of soft-skills training and then given a work placement for approximately 6 months with an allowance of about RM1,000. The government incentivised the private sector to participate in SL1M by providing double-tax deduction to companies that offer a minimum of two months training to youths in the programme (New Strait Times, 2014).

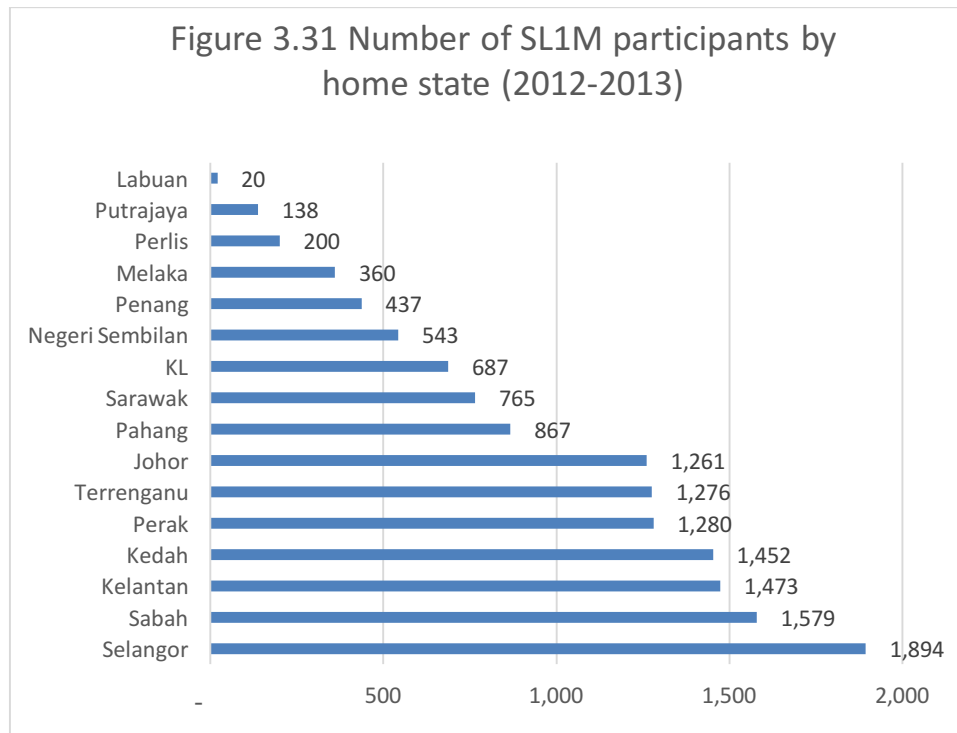
Only degree holders are accepted in the programme, such that diploma holders are ineligible for SL1M. In the short term, the programme helps in tackling youth unemployment directly for a year. Between 2012 and 2014, 17,392 graduates have participated in SL1M (New Strait Times, 2014). However, participants are not guaranteed employment after the work placement, even though they are sometimes given implicit assurance of securing a full-time role if their work placement was at a government-linked company (Stupanaseh, 2015).

An issue of concern is the type of work placement these graduates are given and the usefulness of the work placement programmes in improving their employability. While roles such as accounts and engineer trainee may help graduates find high-skill employment following SL1M, those who took on more operational roles or worked as sales assistants might find the internship experience less valuable and could arguably secure the same type of work with higher wages on their own (see Appendix III).

It is possible that the lack of high-skill employment in certain states meant that some youths have to venture out of their home states and use the SL1M programme to secure employment.

As seen in Figure 31, a large number of SL1M participants are from Sabah, Kelantan and Kedah, states which have a relatively lower share of high-skill employment.

Figure 30: Number of SL1M participants by home state



Source: SL1M, 2014

Graduate Employability Management Scheme (GEMS)

Launched in 2009, GEMS was initially created and ran by Khazanah in an effort to reduce unemployment among fresh graduates and increase their employability through on-the-job training. Ownership of the programme was later transferred over to Talent Corp in 2012 and the programme was rebranded to become more sector-focused so it could act as a talent pipeline for targeted National Key Economic Area (NKEA) industries. Similar to SL1M, GEMS is a 12-month programme that is divided into two parts – a one-month classroom-training of soft skills, followed by an 8-12 month work placement at a host company, during which they will be given an RM1,000 monthly allowance.

Between 2009 and 2011, GEMS benefited 6,000 participants and 80% of graduates were able to secure employment at the end of the programme (Khazanah, 2010). As of 2014, GEMS has trained over 12,000 graduates, though it is once again unclear where they went after finishing the programme.

Short-term band-aids to combat youth unemployment

The work placement provided as part of the schemes' place-and-train methodology temporarily relieves youths from the stress and stigma of unemployment. While these government schemes seem to be designed in reaction to employers' feedback on the quality of graduates, it is difficult to tell if they really have any long-term gains for the participants or the economy beyond providing short-term employment and some basic income. Moreover, several participants have expressed concerns over having to geographically relocate to take the job offered (The Borneo Post, 2015).

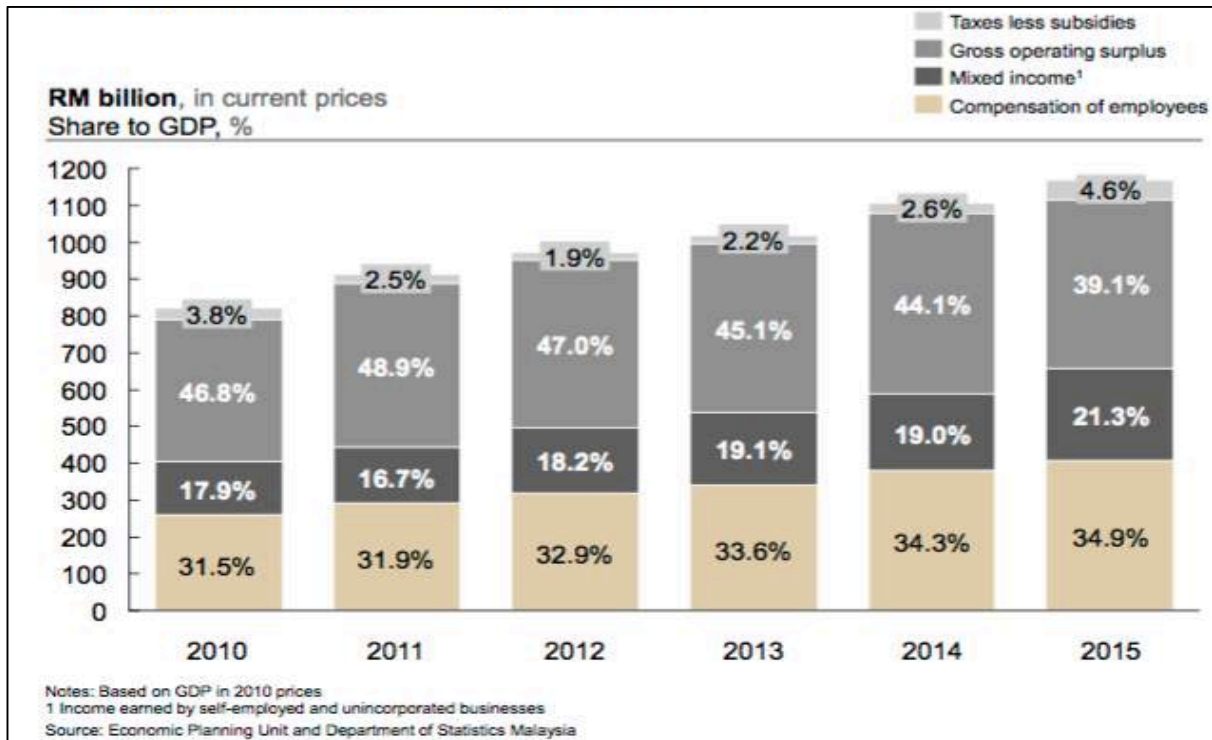
As reported by the Khazanah Research Institute (2016), "while efforts have been made to address the shortage in employable skills, with the World Bank estimating that RM1b was spent on active labour market programmes in 2013, these efforts remain very much supply-driven. A TalentCorp / World Bank survey found that fewer than 30% of firms found graduate employability programmes useful. Thus, there is a need to strengthen the link between these human resource initiatives and firms' requirements".

4.0 Wages and Income

Increasing share of GDP going to workers

The share of paid wages as a percentage of GDP has gradually increased while that of profits, represented by gross operating surplus, has shrunk. In 2011, the ratio of compensation of employees (CE) to GDP in Malaysia was 31.7%. By 2015, this has risen to 34.8%. While this ratio is still relatively lower than that of other high- and middle-income countries such as Australia (47.8% of GDP), South Korea (43.2%), and South Africa (45.9)%, the increase signals positive development in this area (EPU, 2016a). The slow increase in wages could be attributed to Malaysia's reliance on low-skilled labour and their lack of bargaining power (Khazanah Research Institute, 2015).

Figure 31: GDP by income approach (2010-2015)



Source: Economic Planning Unit, 2016a

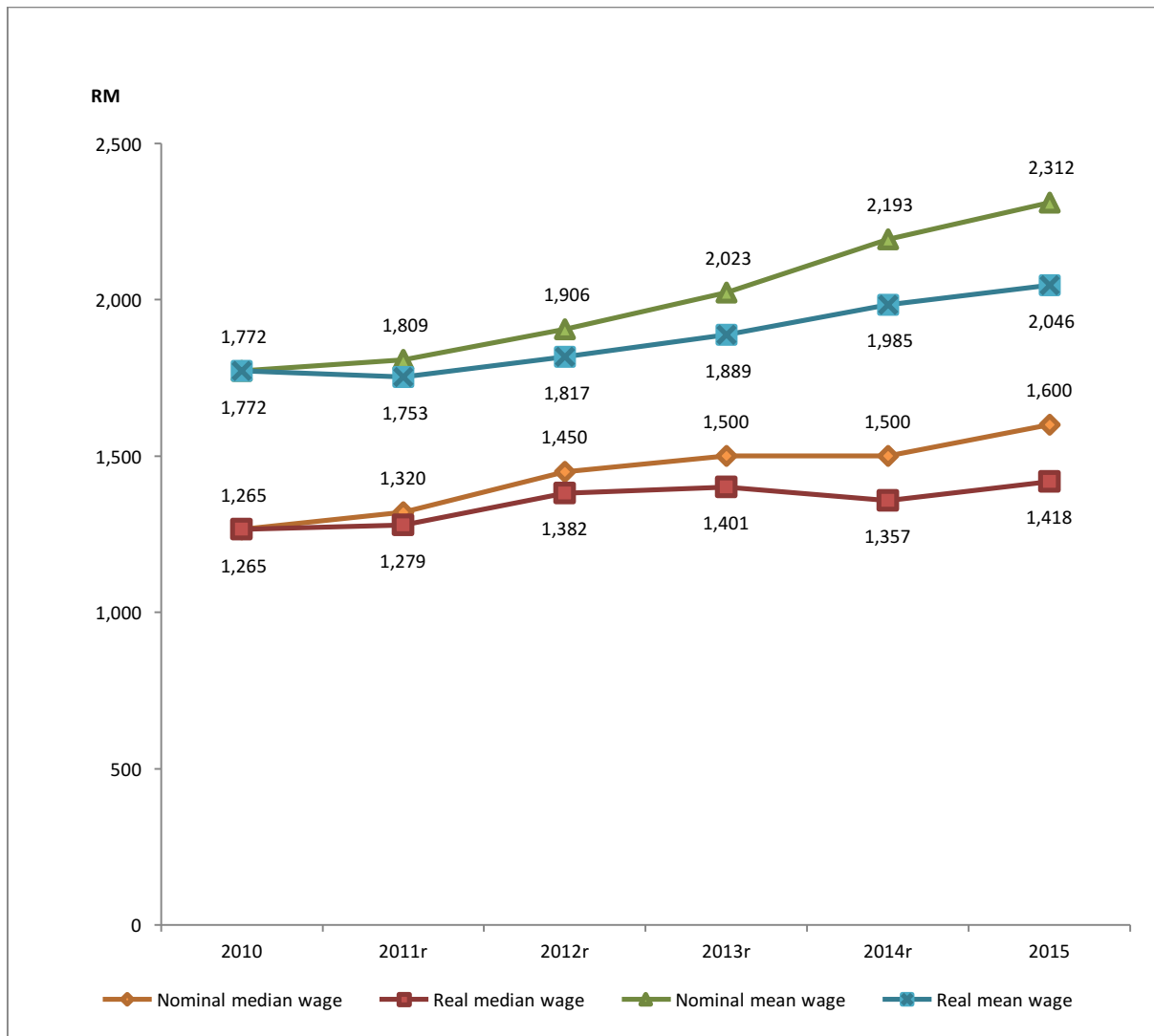
Reaching ETP goals in wage distribution

Tracking wage¹¹ growth is useful to understand what the working population is earning and what their purchasing power is. Over the past five years, nominal median wages have grown at a CAGR of 4.9% while real median wages grew at 2.6%. As of 2015, half of the working population earned RM1,600 or less per month. If it continues to grow at the same CAGR, by 2020, half of our working population will be earning more than RM2,000 in nominal terms and would fall in the middle or high income group.

Mean wages grew faster at a CAGR of 6.3% in nominal terms and 3.9% in inflation-adjusted real terms. Over time, the median growing less rapidly than the mean generally reflects an increase in wage inequality among the working population. This report will largely use median wages rather than mean wages as a more accurate representation of the 'typical' worker's income can be drawn based on median wages. This is because mean wages can be skewed upwards as a result of a small group of individuals earning a very high wage.

¹¹ Wages exclude bonuses, gratuities and other non-regular payments

Figure 32: Growth in nominal & real mean & median wages (2010-2015)



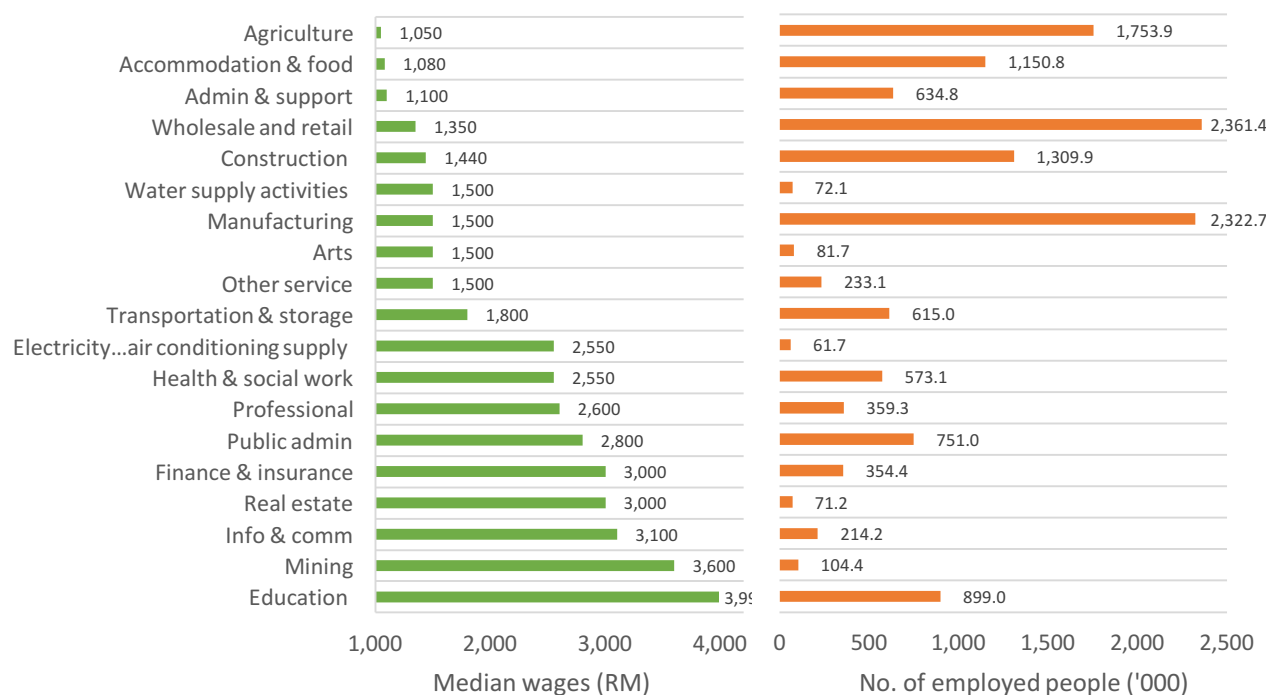
Source: DOSM, Salaries & Wages Report Time Series

Many employed in sectors that offer lower wages but are experiencing wage growth

Sectors where a majority of employees are of low or mid-skill, such as agriculture, accommodation & food, administration & support and retail would have a lower median wage. In the Malaysian labour market, the sectors which employ the most people are the ones that pay the lowest wages. This reflects our economy's focus on using low-productivity and labour intensive technology that requires few skilled workers.

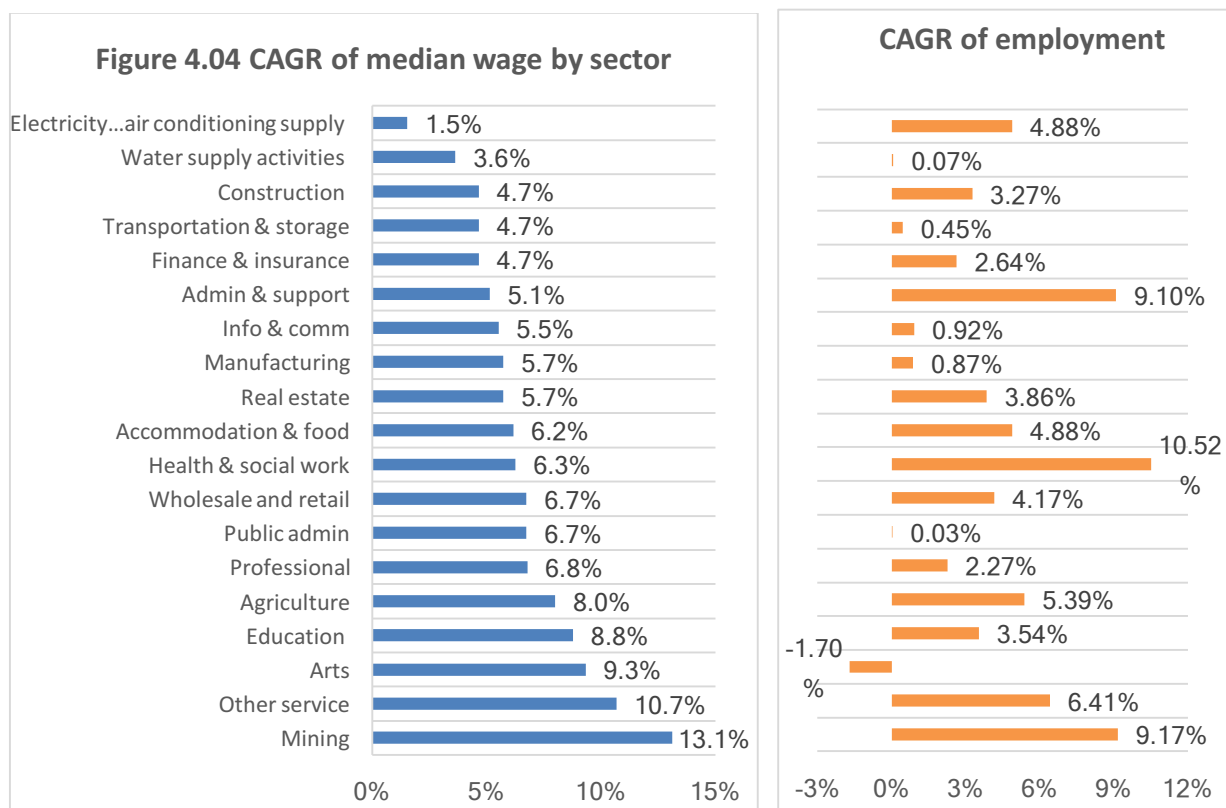
Figure 33: Median wage & number of employed persons by sector (2015)

Comparing median wage in each sector with number of employed persons in 2015



Source: DOSM, Salaries & Wages Report 2015, LFS 2015

Figure 34: CAGR of median wage & employment by sector (2011-2015)



Source: DOSM, Salaries & Wages Report 2015, LFS 2015

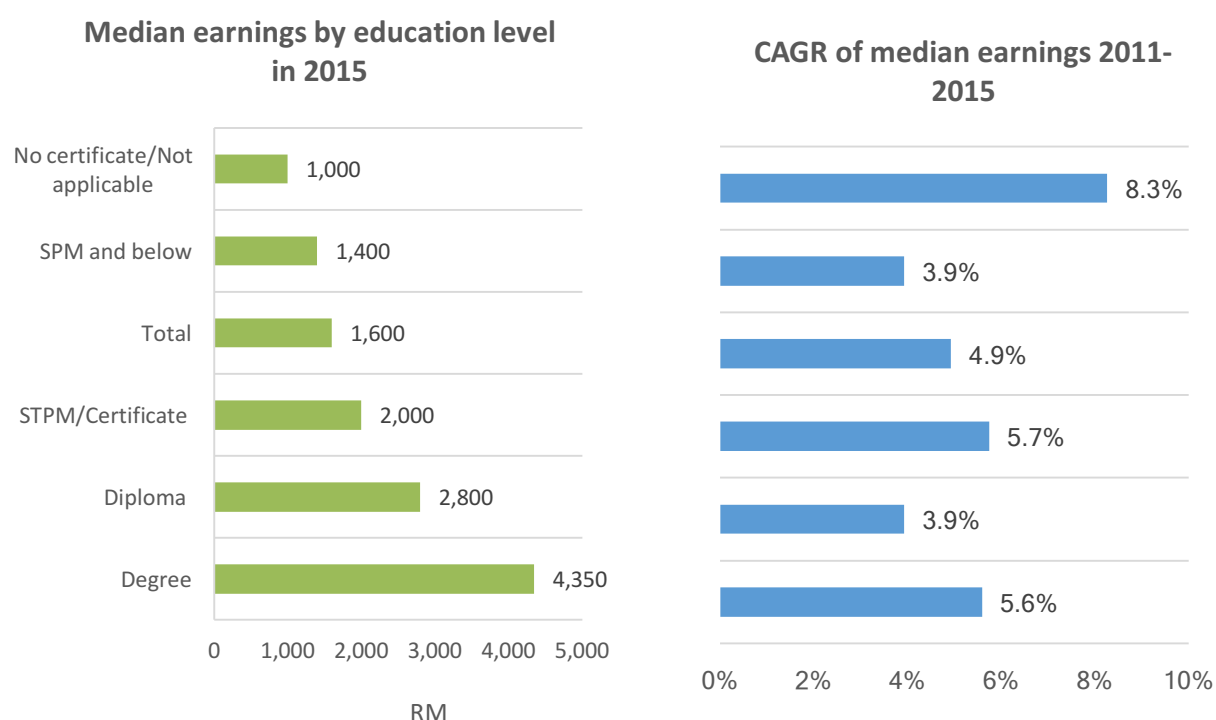
Those with primary level or no formal education saw the highest CAGR in nominal median wages

Figure 36 below shows the median and mean wages received by workers with different qualification levels. If we compare the median wage of worker with tertiary education and those without, we see that there is a skill premium of RM600-RM2,950 in monthly income if one chooses to stay in the education system and obtain tertiary qualifications.

Within the tertiary educated workers, some could earn more based on the type of tertiary qualification attained. While 50% of diploma holders receive a wage of RM2,800 per month, those with degrees could earn up to RM4,350 per month. This also reflects severe underemployment among diploma graduates as more than half of the new graduates work in mid-low skill jobs that do not pay well, hence the large difference between the two groups.

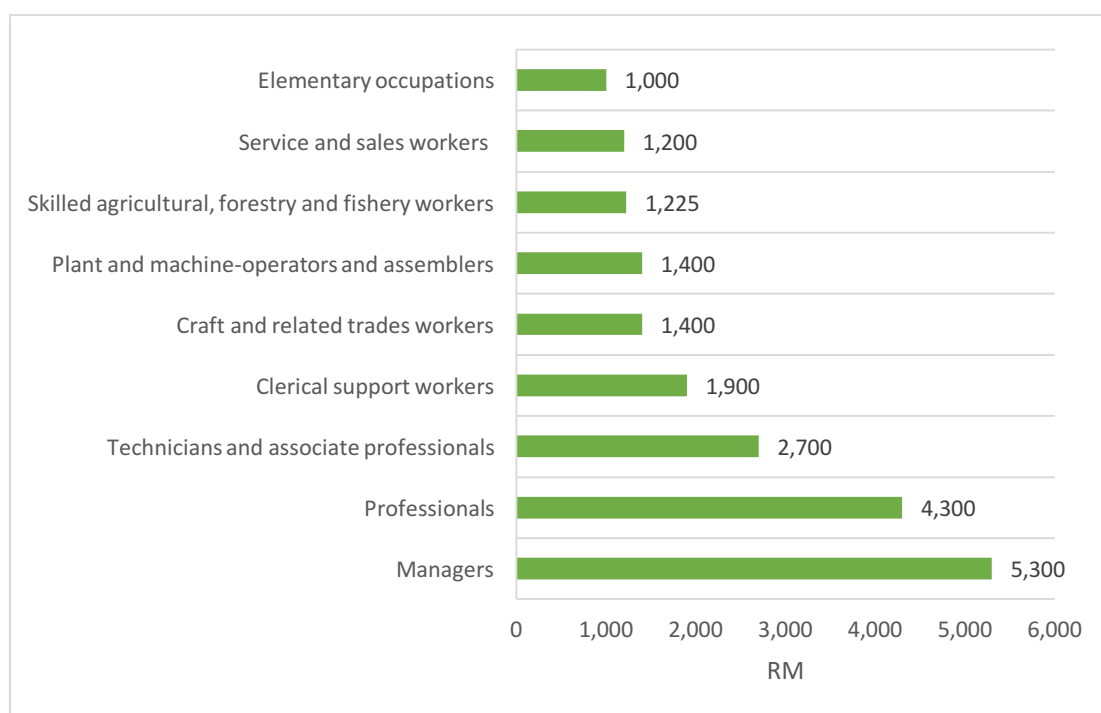
Those with primary level or no formal education saw the highest CAGR in nominal median wages, at 8.3%. This is likely to be due to the minimum wage legislation implemented in 2013 which may have directly affected earnings for this group of workers.

Figure 35: Median earnings by education level & CAGRs (2011-2015)



Source: DOSM, Salaries & Wages Report Time Series, & author's calculations

Figure 36: Median earnings by occupation



Source: DOSM, Salaries & Wages Report 2015

4.1 Wage growth by state

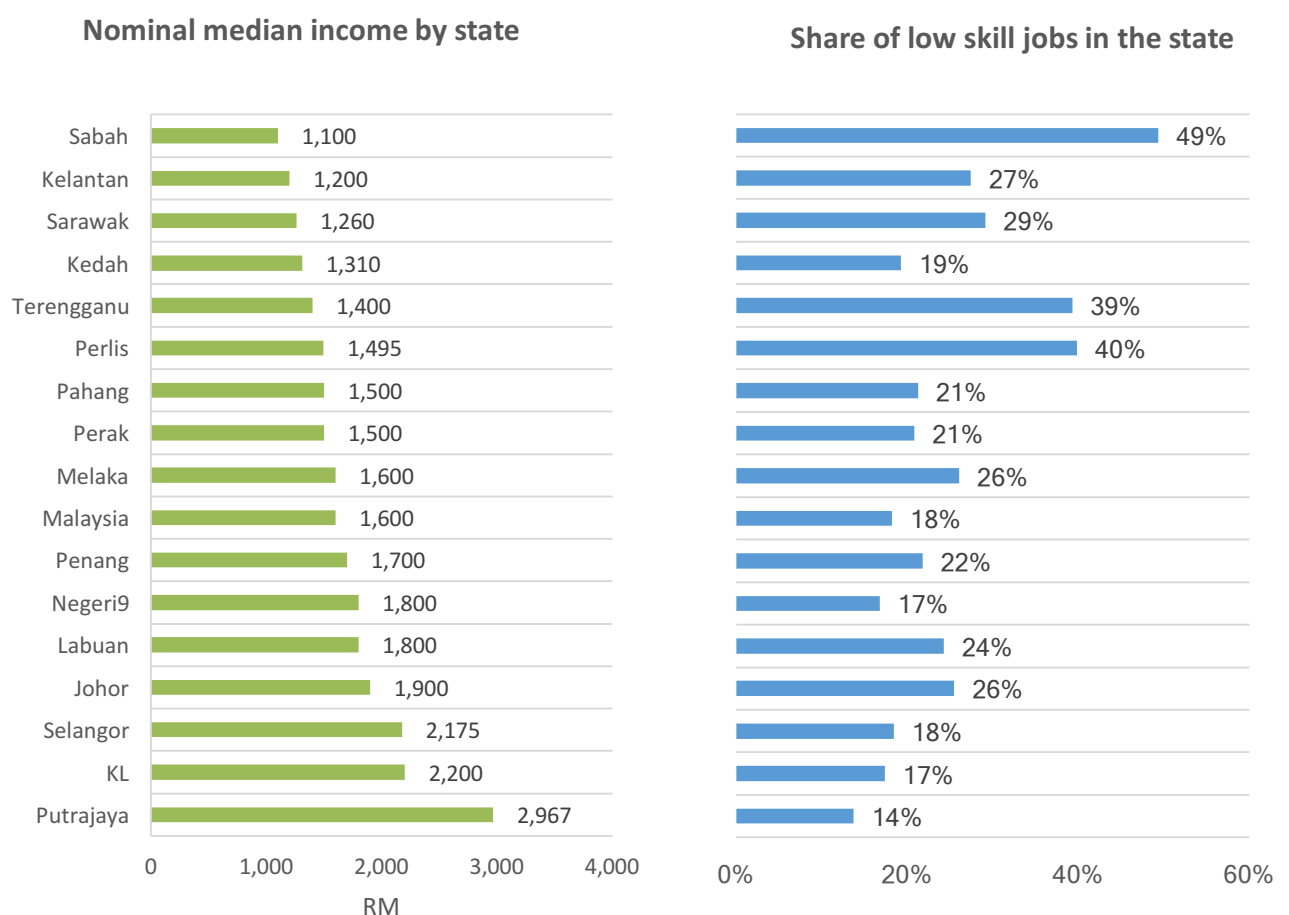
Salary distribution by states

In Putrajaya, Kuala Lumpur and Selangor, half of the workers earn more than RM2,000. In Sabah, Kelantan, Sarawak, Kedah and Terengganu, more than half of the workers are paid less than RM1,500 per month.

The nominal median income by state is somewhat reflective of the distribution of skilled jobs in the country. States with a larger share of the working population in low-skill jobs tend to have a lower median income as well.

Sabah experienced the largest CAGR in median wages between 2011 and 2015, followed by Selangor, Labuan and Johor.

Figure 37: Median income and share of low-skill jobs by state



Source: DOSM, Salaries & Wages Report 2015, LFS 2015

Table 8: CAGR in median & mean wages by state (2011-2015)

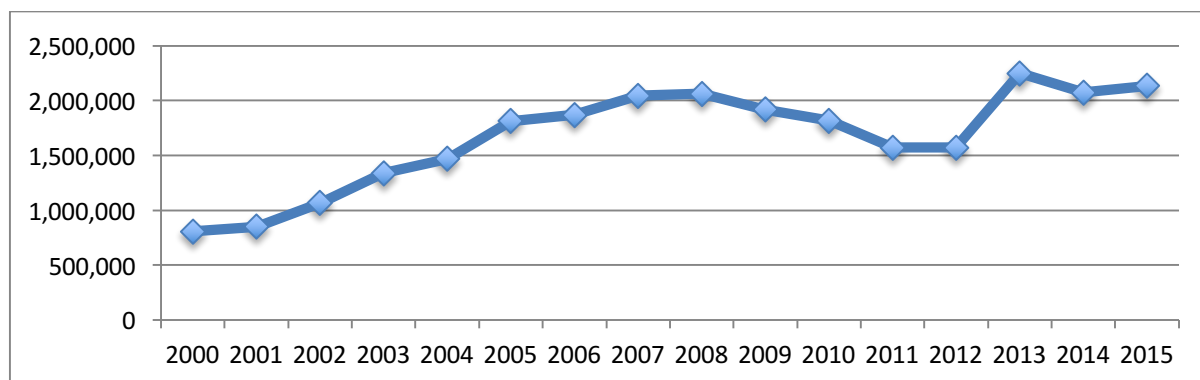
State	CAGR in median wage	CAGR in mean wage
Sabah	10.0%	6.6%
Selangor	8.0%	7.6%
W.P. Labuan	7.9%	7.0%
Johor	7.9%	6.7%
Kedah	7.0%	6.6%
Perak	6.9%	5.9%
W.P. Putrajaya	6.8%	6.6%
Terengganu	6.2%	6.5%
Melaka	6.2%	5.3%
Sarawak	5.9%	4.4%
Negeri Sembilan	5.8%	5.5%
Perlis	5.6%	7.9%
Pulau Pinang	5.4%	4.9%
Kelantan	4.7%	5.8%
Pahang	4.5%	5.1%
Kuala Lumpur	3.7%	8.7%

Source: DOSM, Salaries & Wages Report Time Series, & author's calculations

5.0 Foreign Labour in Malaysia

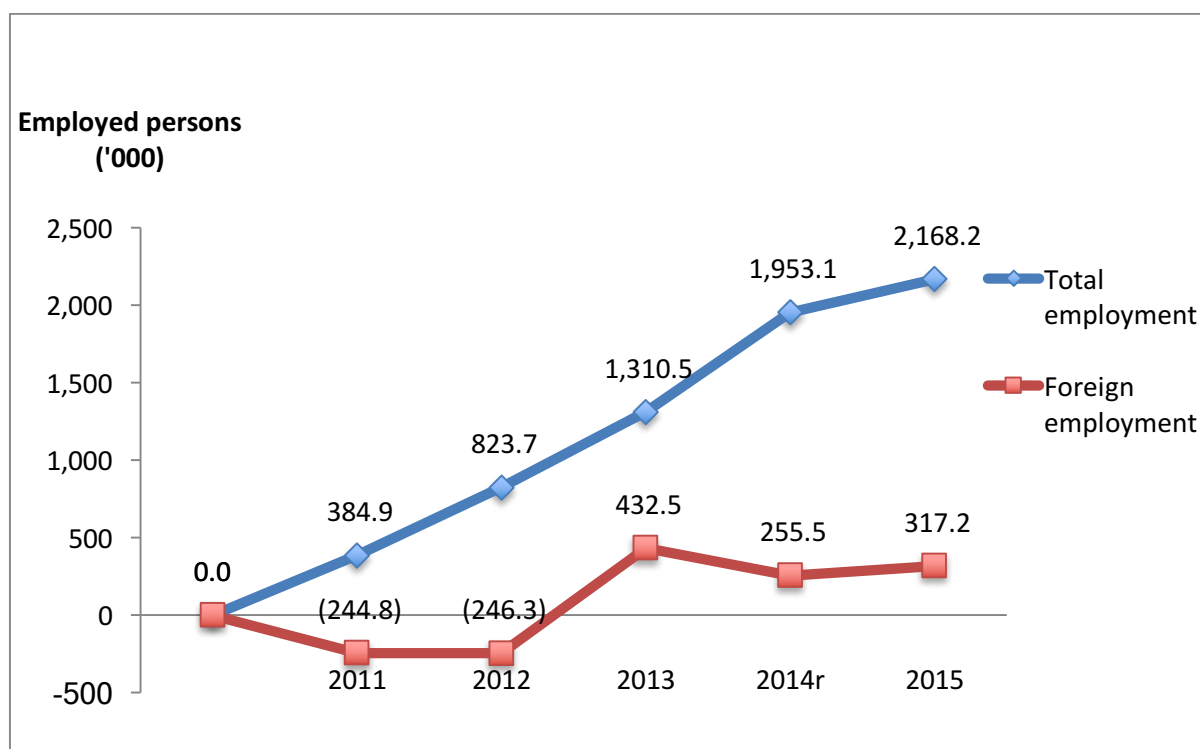
In 2015, there were 2.1 million documented foreign workers in Malaysia, an increase from 1.8 million in 2010. There is also an estimated 1 million undocumented foreign workers in the country (World Bank, 2015). Of the 2.2 million new jobs created in the economy over the past five years, 317,000 or 15% of which were taken by foreign workers, such that approximately 1.9 million jobs went to Malaysians.

Figure 38: Number of foreign workers in Malaysia



Source: Economic Planning Unit, 2016)

Figure 39: Cumulative increase in employment (2010-2015)



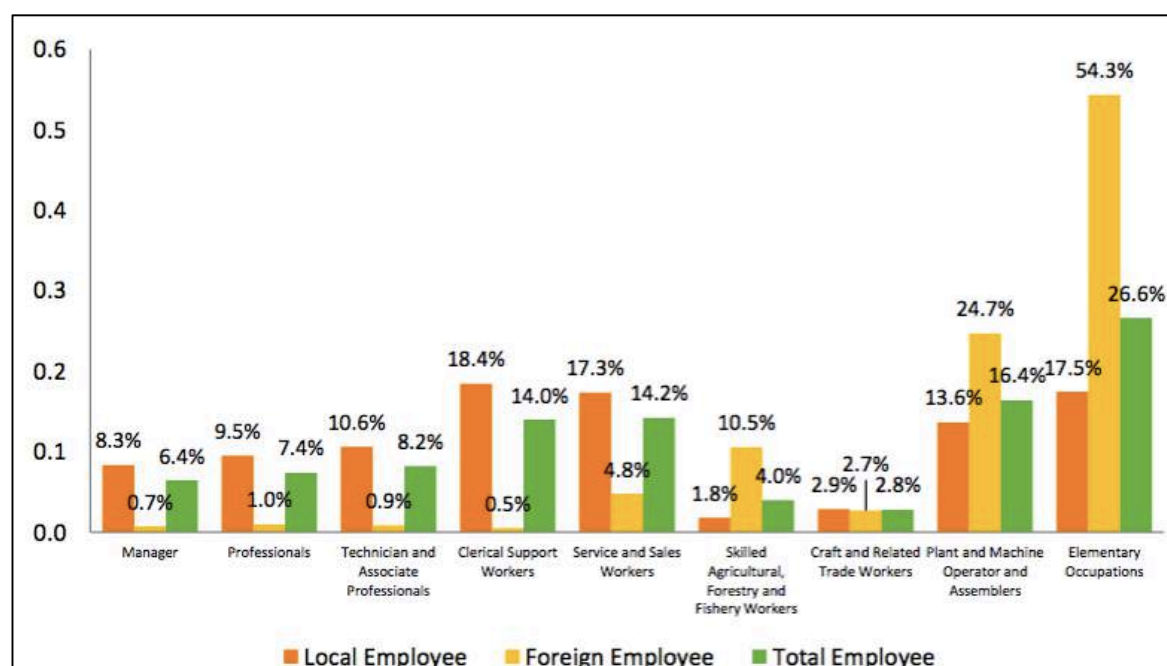
Source: Economic Planning Unit, LFS Time Series, & author's calculations

Most foreign workers are employed in elementary occupations

Foreign workers in Malaysia are usually engaged in low-skill employment. Figure 38 shows the occupational groups foreign and local employees work in.

According to ILMIA (2016a)¹², only 2.6% of the 2.3 million foreign workers in our country were engaged in high-skill jobs in 2013. Approximately 58,508 out of the 3.3 million high skill jobs in the economy are taken by foreigners, which is 1.8% of total high-skill jobs in the economy. On the other hand, 54.3% of foreign workers are engaged in low-skill employment. An estimated 1.2 of the 1.8 million low-skill jobs in the country are taken by foreign workers. This means that two-thirds of the workers in elementary occupations are foreigners in 2013.

Figure 40: Distribution of employees by job category (2013)



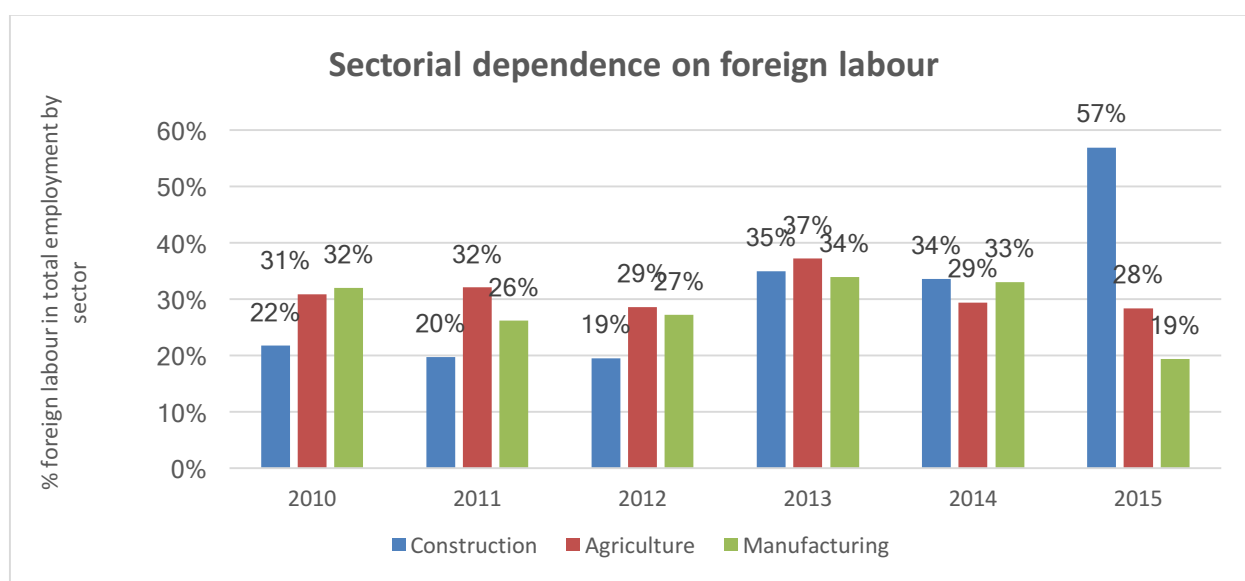
Source: ILMIA, National Employment Returns, 2014

Construction sector increasingly dependent on foreign workers?

Figure 42 shows the share of foreigners employed in selected industries. In 2010, roughly one-third of the employees in the manufacturing and agriculture sectors were foreigners. In 2015, this share has went down to 19% and 28% respectively. On the other hand, the proportion of foreign employees in the construction sector has risen considerably from 22% to 57% over the past five years. This could indicate increasing reliance on foreigners in the sector. It is also possible that some of the previously undocumented foreign labour working in the construction sector are now documented and recorded in the system such the sector had always had a large share of foreign employees just that it was not visible in the data till later years.

¹² ILMIA's report was published in 2014, when the 2013 figures have not been revised.

Figure 41: Share of foreigners employed in selected sectors



Source: Economic Planning Unit, 2016

6.0 Concluding Remarks

In terms of number of jobs generated, we seem to be on track to reach the ETP's targeted 3.3 million. However, the jobs created thus far are largely focused in industries that typically require mid-low skill workers. At the time the ETP was planned out and launched between 2009 and 2010, there was a smaller size of tertiary educated workforce. Thus, its focus was on increasing the supply of highly educated workers as it forecasted that more than half of the new jobs created would require diploma or degree-level qualifications. But since 2010, there has been a slowdown in the growth of high-skill jobs even as an increasingly high number of tertiary graduates entered the labour market. The number of tertiary educated workers in the economy surpassed the number of high-skill jobs available in 2012. As of 2015, only 26% rather than the ETP's predicted 54% of the new employment is high-skill.

While a rising share of high-skill employment are going to women, the share of managerial positions taken by women have remained stagnant over the past five years, a sign that women are still facing barriers to promotion. A rapidly increasing number of women are entering vulnerable employment that pays low wages and offers little legal protection. There should be a closer monitoring of the type of jobs women take and the gender split at executive levels. Entrenched traditions are still part of the problem and there needs to be increased awareness about them.

Underemployment is a growing issue, especially for fresh graduates. An increasing number of tertiary graduates are entering the informal sector, which traditionally pays less and offers little economic opportunities. A major concern is that there is a growing mismatch in our labour market, and that our education system is not producing the type of workers

demanding by employers. The government invested heavily in supply-side schemes that were meant to help fresh graduates become more employable. However, beyond providing temporary work and basic income to a small group of youths, it is unclear if there are any longer term impacts for the youths or for our economy. Perhaps there needs to be a more direct intervention in our education system to improve the quality of our graduates. In particular, more attention should be paid to improve our students' fluency in English, numerical skills and other soft skills.

Given that our labour force is currently growing at a slower pace, there needs to be a strong emphasis on productivity as a growth engine. Policy makers may have to consider solutions that would shift our production structure to one that is more capital rather than labour intensive, and by doing so, increase high-skill employment in the economy. One way to reduce reliance on cheap labour is through limiting the number of foreign workers in the country, but doing so in a way that is planned in accordance to a set timeline and implemented gradually rather than spontaneously on an ad-hoc basis, as it currently is. The private sector, perhaps through the representation of the Malaysian Employer's Federation, should be involved in policy discussions and given ample time to react accordingly. The government could also reward R&D efforts that improve productivity in currently highly labour intensive industries to encourage technological upgrades. Such policies could create more demand to absorb our supply of high-skill workers and also help us shift more workers into the higher end of the income distribution.

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Appendix 1: Breakdown of skill levels and job creation by skill level in Malaysia

High-skill, mid-skill and low-skill occupation groups are categorised according to Malaysian Standard Classification of Occupation (MASCO) 2008, developed in accordance to ILO's International Standards. As MASCO 2008 was implemented from 2011 onwards, all figures and tables involving skill groups use 2011 data onwards instead of 2010.

ISCO-08 groups	Description	Skill
1 Managers	Plan/direct activities of organisations. E.g. senior officials, heads of village, marketing/hotel/mining managers.	3 + 4
2 Professionals	Increase the existing stock of knowledge, apply scientific/artistic theories. E.g. physicists, engineers, dieticians, early childhood teachers, accountants, journalists, restaurant & related professionals.	4
3 Technicians & Associate Professionals	Perform mostly technical & related tasks. E.g. chemical technicians, construction supervisors, agricultural technicians, veterinary assistants, ambulance workers, legal secretaries, athletes, chefs.	3
4 Clerical Support Workers	Record/organise information; perform client-oriented duties. E.g. bank tellers, secretaries, receptionists, scribes, payroll clerks, stock clerks, data entry clerks.	2
5 Services & Sales Workers	Provide personal services related to travel, catering, protection; sell goods; pose as models for art. E.g. cooks, travel guides, waiters, bartenders, hairdressers, housekeeping supervisors in offices, cashiers, shopkeepers, fire-fighters, security guards.	2
6 Skilled Agricultural, Forestry & Fishery Workers	Grow & harvest field/crop, hunt animals, produce animal husbandry products. E.g. crop grower, forestry worker, trappers and gatherers.	2
7 Craft & Related Trades Workers	Work carried out by hand in fields of mining, construction, repair work; calls for an understanding of all stages of the production process. E.g. house builders, bricklayers, blacksmiths, butchers, tailors.	2
8 Plant & Machine Operators, & Assemblers	Cope with machine-paced operations, drive/operate vehicles. E.g. miners, machine operators, ships deck crews, lifting truck operators, railway brake operators.	2
9 Elementary Occupations	Perform single & routine tasks which mainly require the use of handheld tools/considerable physical effort. E.g. domestic cleaners, farm labourers, garbage collectors, fast food preparers.	1

The World Bank has a different definition of skill levels. As presented in their Economic Monitor Report (2012), high-skill jobs include managers, professionals, technicians & associated professionals; mid-skill jobs include clerical support workers, services & sales workers; low-skill jobs include skilled agricultural, forestry & fishery workers, craft & related trades workers, plant & machine operators, & assemblers, elementary occupations.

Appendix 2: Distribution of Employees by Sector & Job Category

Table 3.2: Distribution of Employees by Sector and Job Category, 2013

Sector	Job Category (%)									Total (%)
	Manager	Professionals	Technician and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Craft and Related Trade Workers	Plant and Machine Operator and Assemblers	Elementary Occupations	
Agriculture, forestry and fishing	2.1	1.8	2.2	5.2	1.5	21.4	2.2	5.5	58.2	100.0
Mining and quarrying	5.2	5.8	9.3	11.8	5.0	0.6	13.2	32.3	16.7	100.0
Manufacturing	4.3	5.5	13.2	6.8	2.6	0.4	3.3	40.9	23.0	100.0
Electricity, gas, steam and air-conditioning supply	9.4	10.7	21.3	12.7	15.2	0.8	5.5	7.5	16.9	100.0
Water supply, sewerage, waste management and remediation activities	4.2	3.3	13.3	9.9	4.5	0.1	8.3	9.5	46.9	100.0
Construction	8.3	5.0	8.2	10.5	6.9	0.5	8.8	14.2	37.6	100.0
Wholesale and retail trade, repair of motor vehicles and motorcycles	9.6	2.9	3.2	18.2	40.2	0.4	2.9	1.7	20.8	100.0
Transportation and storage	4.0	1.6	3.6	64.0	7.5	0.2	1.5	6.0	11.6	100.0
Accommodation and food service activities	9.7	2.0	2.0	6.2	47.1	0.6	2.8	0.7	28.8	100.0
Information and communications	3.0	31.5	10.5	7.7	7.9	0.0	0.1	38.4	0.9	100.0
Finance and insurance activities	23.1	35.8	8.2	18.1	9.6	0.1	0.1	0.1	4.9	100.0
Real estate activities	15.9	10.0	14.0	29.4	12.9	0.7	1.7	0.0	15.4	100.0
Professional, scientific and technical activities	9.2	20.0	24.8	30.6	6.2	0.2	1.3	1.2	6.6	100.0
Administrative and support service activities	14.7	16.8	6.3	17.9	24.1	0.4	0.0	1.0	18.8	100.0
Public administration and defence, compulsory social security	2.1	0.8	1.2	1.7	92.5	0.0	0.0	0.0	1.7	100.0
Education	7.8	45.0	10.3	14.7	8.7	0.3	1.6	0.0	11.6	100.0
Human health and social work activities	9.0	14.9	8.9	22.4	27.1	0.6	0.8	0.9	15.6	100.0
Arts, entertainment and recreation	6.1	5.9	4.3	8.3	51.0	1.0	2.5	3.0	18.0	100.0
Other service activities	10.7	5.1	8.9	14.5	30.9	0.7	3.2	3.9	22.1	100.0
Household as employer	15.7	2.1	3.0	6.6	40.8	0.0	1.8	3.0	26.9	100.0
Activities of extra-territorial organisations and bodies	11.0	21.8	46.6	10.2	2.8	0.5	1.1	0.0	6.1	100.0
Total	6.5	7.4	8.4	12.9	14.3	4.0	2.9	16.7	26.9	100.0

Source: ILMIA, 2016a

Appendix 3: Government schemes to help youths

ASET

Accelerated Skills Enhancement Training Program

PSMB SPONSORED FREE TRAINING

HURRY AND REGISTER TODAY! / LIMITED SEATS AVAILABLE

ARE YOU

- CURRENTLY EMPLOYED?
- A DIPLOMA HOLDER?
- A DEGREE HOLDER?
- OR A SKM LEVEL 2 HOLDER?

**100%
FREE**

Tuition fee will be fully borne
by the Government
through PSMB

**CERTIFICATE IN
PRINCIPLES OF BUSINESS ADMINISTRATION**

SL1M



70 kekosongan

Pelatih SL1M

1Utama, Sungei Wang, Subang & Seremban

- Graduan Ijazah Sarjana Muda dari pelbagai bidang
- Tempoh latihan : 8 Bulan
- Elaun : RM 1,300 – RM 1,500
- Umur bawah 28 tahun
- Uniform disediakan



Experience

SL1M

Malaysia Airport

SI1m - Operation

PENANG INTERNATIONAL AIRPORTS

June 2016 – Present (4 months) | Penang, Malaysia

- Work in Operation Department
- Assist Head of Operation.
- Do the Standard Operation Procedure (SOP) for grass cutting
- Inspection toilet at terminal airport for Airport Survey Quality (ASQ)
- Attend meeting if needed.

Table of figures

As MASCO 2008 was implemented from 2011 onwards, all figures and tables involving skill groups use 2011 data onwards instead of 2010 for consistency purposes.

Figure 42: Number of labour force & employed persons

Year	Labour Force	Employed persons	CAGR of employed (06-10 = 3.73%), (11-15 = 3.31%)
2006	10628.9	10275.4	10275.4
2007	10889.5	10538.1	10659.36248
2008	11028.1	10659.6	11057.67255
2009	11315.3	10897.3	11470.86634
2010	12303.9	11899.5	11899.5
2011r	12740.7	12351.5	12351.5
2012r	13221.7	12820.5	12351.5
2013r	13980.5	13545.4	12759.84949
2014r	14263.6	13852.6	13181.6993
2015	14518	14067.7	13617.49578

Figure 43: Labour Force Participation Rate

Year	Labour force
2010	63.7
2011 ^r	64.5
2012 ^r	65.6
2013 ^r	67.3
2014 ^r	67.6
2015	67.9

Figure 44: Employment by sector

Sector	Employed persons ('000)
Total	14067.7
Wholesale & retail	2361.4
Manufacturing	2322.7
Agriculture	1753.9
Construction	1309.9
Accom & food	1150.8
Education	899
Public admin	751
Admin & support	634.8
Transport & storage	615
Health & social	573.1

Professional & technical activities	359.3
Finance & insurance	354.4
Other services	233.1
Info & comm	214.2
Households as employers	142.3
Mining	104.4
Arts, entertainment & recreation	81.7
Water supply	72.1
Real estate	71.2
Electricity supply	61.7
Extraterritorial bodies	1.7

Figure 45: Cumulative net jobs (2010-2015)

	Net employment	CAGR in employment 2010-2015
Total ('000)	2168.2	0.0340437
Retail	473.6	0.0457857
Accom & food	294.1	0.0608017
Health & social	293.1	0.154023
Admin & support	275.6	0.1206245
Construction	227.2	0.0388336
Manufacturing	214.2	0.0195391
Agriculture	139	0.0166509
Education	119.7	0.0289896
Professional	73.7	0.0469834
Transport	60.3	0.0208534
Other	50.2	0.0497012
Mining	47.2	0.1278748
Info & comm	35.3	0.0366731
Finance	31	0.0184759
Real estate	12.7	0.0400754
Electricity	6.2	0.0214061
Water	5.4	0.0156917
Extra	-0.8	-0.0742328
Arts	-9.9	-0.0226158
Public admin	-36.7	-0.0094969
Household	-143.1	-0.129938

Figure 46: Comparing GDP income with number of employment in selected sectors

Sector	2015 GDP value	2015 employment
Retail	155745	2361.4

Manufacturing	244205	2322.7
Agriculture	94143	1753.9
Construction	46634	1309.9
Accom & food	29377	1150.8
Education	44730	899
Public admin	56536	751
Admin & support	9842	634.8
Transport	37319	615
Health & social	30745	573.1
Professional	20887	359.3
Finance	73482	354.4
Info & comm	60471	214.2
Mining	95134	104.4
Real estate	15058	71.2

Figure 47 (i): Composition of labour force and employment by skill type (2011 & 2015)

Education of labor force	2010	2011	2012	2013	2014	2015
No education	452.7	418.7	415.9	436.0	396.0	446.3
Primary	2,168.2	2,168.9	2,244.9	2,388.5	2,264.6	2,229.6
Secondary	6,792.0	7,050.9	7,367.0	7,779.5	7,882.8	7,836.6
No. of tertiary educated labor force	2,891.0	3,102.1	3,193.9	3,376.5	3,720.3	4,005.4
%tertiary	23.5%	24.3%	24.2%	24.2%	26.1%	27.6%
%secondary	55.2%	55.3%	55.7%	55.6%	55.3%	54.0%
%no edu & primary	21.3%	20.3%	20.1%	20.2%	18.7%	18.4%

Figure 48 (ii): Composition of labour force and employment by skill type (2011 & 2015)

Occupations	2010	2011	2012	2013	2014	2015
No. of high skill occupations	3,290	3,234	3,217	3,268	3,408	3,588
Legislators, senior officials and managers	856.7	695.6	686.2	695.5	666.1	718.6
Professionals	737.4	1225.1	1246.4	1284	1376.9	1462
Technicians and associate professionals	1695.8	1313	1284.3	1288.4	1365.1	1406.9
Mid skill	7255.9	7566.4	7933.2	8278.9	8404	8534.3

Clerical workers	1183.2	1178.3	1170	1189.5	1234.5	1241.1
Service workers and shop and market sales workers/Service & sales workers	1959.6	2495.1	2625.6	2866.1	3106.9	3188.9
Skilled agricultural and fishery workers / +forestry	1382	1007.9	1175.3	1162.9	979.6	940.3
Craft and related trade workers	1228.3	1330.2	1414.2	1452.7	1503.1	1578.8
Plant and machine-operators and assemblers	1502.8	1554.9	1548.1	1607.7	1579.9	1585.2
Elementary occupations	1353.7	1484.2	1573.1	1663.3	1719.9	1945.9
%high skill	27.6%	26.3%	25.3%	24.7%	25.2%	25.5%
%mid skill	61.0%	61.6%	62.4%	62.7%	62.1%	60.7%
%elementary skill	11.4%	12.1%	12.4%	12.6%	12.7%	13.8%

Figure 49 (i): Cumulative increase in jobs by skill (2006-2010, 2011 Q1-2015)

Cumulative	Total	High skill	Mid skill	Elementary skill
2011 Q1 (Quarterly data)	12116.5	3086.1	7404.8	1625.6
2011 (Yearly)	235	133.6	206.5	-105.2
2012 (Yearly)	704	125.7	594.1	-15.8
2013 (Yearly)	1428.9	186.7	1063.6	178.4
2014 (Yearly)	1736.1	322	1218.9	195.2
2015 (Yearly)	1951.2	501.4	1129.5	320.3

Figure 50 (ii): Cumulative increase in jobs by skill (2006-2010, 2011 Q1-2015)

Cumulative	High-skill	Mid-skill	Low-skill
Changes 11-15	501	1130	320
Changes 06-10	587	792	245

Figure 51: CAGR of high-skill, mid-skill and low-skill jobs

Year	High-skill jobs	Mid	Low

01	2,278.30	6,083.80	994.90
02	2,354.63	6,141.43	1,026.69
03	2,433.51	6,199.60	1,059.50
04	2,515.04	6,258.32	1,093.36
05	2,599.30	6,317.60	1,128.30
06	2,703.00	6,464.10	1,108.40
07	2,839.10	6,653.56	1,165.21
08	2,982.05	6,848.57	1,224.92
09	3,132.19	7,049.29	1,287.70
10	3,289.90	7,255.90	1,353.70
11 ^r	3,219.70	7,611.30	1,520.40
12 ^r	3,307.95	7,832.24	1,617.14
13 ^r	3,398.63	8,059.60	1,720.04
14 ^r	3,491.79	8,293.55	1,829.49
15	3,587.50	8,534.30	1,945.90

Figure 52: Jobs created by state (2011-2015)

By skill	C TOTAL ('000), end of 2011-2015, different from figure 2.25 2011 Q1	High-skill	Mid-skill	Low-skill
Total	1716.3	367.8	923	425.5
Selangor	489.6	204.1	227.1	58.4
Sabah	297	7.5	115.1	174.4

Sarawak	156.6	26.8	91.6	38.2
Kedah	138.3	8.8	109.8	19.7
Johor	120.6	6.3	51.6	62.7
Kelantan	107.4	10.5	62.3	34.6
Pahang	89.2	23.8	39.2	26.2
Perak	62.2	4.5	62.9	-5.2
Penang	61.2	13.9	40.6	6.7
Melaka	57.6	20.6	40.9	-3.9
Negeri9	52.7	10.5	28.1	14.1
KL	40.7	34.7	11.2	-5.2
Terengganu	30.2	-0.6	26.1	4.7
Perlis	14.9	-0.9	15.9	-0.1
Labuan	0.8	-1.4	1.8	0.4
Putrajaya	-2.9	-1.3	-1.4	-0.2

Table 9: CAGR of jobs by skill level (2011-2015)

	CAGR of all jobs	CAGR in high-skill jobs	CAGR in mid-skill jobs	CAGR in low-skill jobs
Pahang	3.48%	5.61%	2.32%	5.79%
Melaka	3.98%	5.35%	4.45%	-2.76%
Selangor	4.34%	4.63%	3.91%	5.47%
Sarawak	3.51%	3.24%	3.11%	5.52%
Malaysia	3.31%	2.74%	2.90%	6.36%
KL	1.23%	2.73%	0.67%	-1.45%
Kelantan	4.60%	2.55%	3.76%	13.16%
Negeri9	3.03%	2.45%	2.58%	6.33%
Penang	1.92%	1.48%	2.08%	2.29%
Kedah	4.36%	1.42%	5.03%	5.34%
Sabah	4.70%	0.78%	2.99%	11.54%
Perak	1.65%	0.55%	2.52%	-1.17%
Johor	2.00%	0.46%	1.28%	10.28%
Terengganu	1.88%	-0.17%	2.43%	2.64%
Perlis	4.20%	-1.16%	6.65%	-0.27%
Putrajaya	-1.80%	-1.64%	-1.99%	-1.71%
Labuan	0.51%	-3.14%	1.91%	2.35%

Table 10: Share of high, mid & low-skill jobs in each state (2011 & 2015)

By skill	Share of high-skill jobs		Share of mid-skill jobs		Share of low-skill jobs	
	2011	2015	2011	2015	2011	2015
Sabah	16.01%	13.75%	62.38%	58.42%	21.60%	27.83%
Pahang	16.03%	17.39%	66.92%	63.99%	17.05%	18.62%

Sarawak	18.62%	18.42%	66.32%	65.31%	15.06%	16.27%
Malaysia	26.07%	25.50%	61.62%	60.67%	12.31%	13.83%
Negeri9	24.85%	24.30%	62.97%	61.88%	12.18%	13.82%
Kelantan	18.16%	16.78%	71.91%	69.62%	9.93%	13.60%
Johor	23.18%	21.81%	67.87%	65.95%	8.95%	12.23%
Kedah	20.45%	18.24%	68.10%	69.87%	11.45%	11.89%
Labuan	30.23%	26.08%	59.17%	62.53%	10.59%	11.39%
Terengganu	22.61%	20.84%	66.42%	67.86%	10.97%	11.30%
Perak	22.21%	21.26%	65.46%	67.72%	12.33%	11.02%
KL	37.59%	39.86%	51.13%	50.00%	11.28%	10.14%
Selangor	38.86%	39.30%	51.84%	50.98%	9.31%	9.72%
Perlis	23.80%	19.27%	65.02%	71.36%	11.18%	9.38%
Penang	29.67%	29.16%	61.20%	61.58%	9.13%	9.27%
Melaka	26.06%	27.46%	63.15%	64.28%	10.80%	8.26%
Putrajaya	49.03%	49.35%	43.72%	43.38%	7.25%	7.27%

Table 11: Difference in the share of high, mid & low-skill jobs in each state (2011 & 2015)

	Share of high skill (+/-) between 11- 15	Share of mid skill (+/-)	Share of low skill (+/-)
Sabah	-2.26%	-3.96%	6.22%
Pahang	1.36%	-2.94%	1.58%
Sarawak	-0.19%	-1.01%	1.20%
Malaysia	-0.57%	-0.96%	1.52%
Negeri9	-0.55%	-1.08%	1.64%
Kelantan	-1.38%	-2.29%	3.67%
Johor	-1.37%	-1.91%	3.28%
Kedah	-2.21%	1.77%	0.44%
Labuan	-4.16%	3.36%	0.80%
Terengganu	-1.77%	1.44%	0.33%
Perak	-0.95%	2.26%	-1.31%
KL	2.27%	-1.13%	-1.15%
Selangor	0.44%	-0.85%	0.41%
Perlis	-4.53%	6.33%	-1.80%
Penang	-0.51%	0.38%	0.13%
Melaka	1.40%	1.14%	-2.54%
Putrajaya	0.32%	-0.34%	0.03%

Figure 53: Cumulative increase in employment by gender (2010-2015)

Cumulative net jobs 2010 onwards	2011	2012	2013	2014	2015
Females	225	459.3	869.1	1073.4	1185
Males	227	461.7	776.8	879.7	983.2

Figure 54: LFPR by gender

	2010	2011	2012	2013	2014	2015
Overall LFPR	63.7	64.5	65.6	67.3	67.6	67.9
LFPR Females	46.8	48	49.5	52.6	53.7	54.1
LFPR Males	79.3	79.7	80.5	81	80.6	80.6

Figure 55: Women employed as managers by age group (2015)

<i>Occupation</i>	<i>Total ('000)</i>	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64
Managers	161.9	0.1	3.9	22.7	34.1	25.1	22.8	24.7	14.7	10.0	3.9

Figure 56: Share of high-skill jobs & managerial jobs held by women

	2011	2012	2013	2014	2015
No of women with high skill jobs	1220.7	1252	1285.5	1363.5	1464.2
No. of high skill jobs (unrevised data)	3233.7	3216.9	3267.9	3408.1	3587.5
Share of women in high-skill jobs	27.9	27	25.9	26.3	27.2
No of managers	695.6	686.2	695.5	666.1	718.6
Share of managers who are women	22.46%	21.52%	22.04%	22.17%	22.53%

Figure 57: Employment by sector & gender breakdown (2015)

	TOTAL	F	M
Wholesale & retail	2361.4	961	1400.4
Manufacturing	2322.7	884.3	1438.4

Agriculture	1753.9	425.7	1328.2
Construction	1309.9	114.3	1195.6
Accom & food	1150.8	567.9	582.9
Education	899	612.8	286.2
Public admin	751	233.8	517.2
Admin & support	634.8	226.9	407.9
Transport & storage	615	82.2	532.8
Health & social	573.1	463	110.1
Professional & technical activities	359.3	172.4	186.9
Finance & insurance	354.4	192.4	162
Other services	233.1	133.1	100
Info & comm	214.2	72.5	141.7
Households as employers	142.3	135.7	6.6
Mining	104.4	17.3	87.1
Arts, entertainment & recreation	81.7	29.5	52.2
Water supply	72.1	10.9	61.2
Real estate	71.2	30.4	40.8
Electricity supply	61.7	10.3	51.4
Extraterritorial bodies	1.7	0.6	1.1

Figure 58: Share of unpaid family workers & those in vulnerable employment that are women (2011-2015)

Employment by status in employment	2011	2012	2013	2014	2015
Own-account workers	1,917.6	2,115.3	2,304.4	2,238.5	2476.2
Unpaid family workers	509.9	603.1	622.6	615.4	627.4
No. vulnerable employment	2,427.5	2,718.4	2,927.0	2,853.9	3,103.6
F own-account	491.3	598.5	758.7	795.1	922
F unpaid family workers	322.1	394.5	418.5	425.9	440
No. of women in vulnerable empl	813.4	993.0	1,177.2	1,221.0	1,362.0
No. of men in vulnerable empl	1,614.1	1,725.4	1,749.8	1,632.9	1,741.6
Share of female as unpaid family workers	63.2%	65.4%	67.2%	69.2%	70.1%

Share of women in vulnerable employment	33.5%	36.5%	40.2%	42.8%	43.9%
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Figure 59: Share of informal sector employment in the non-agricultural sector

	2012	2013	2015
Total informal sector employment	1044	1323.8	1403.1
Share of informal / non-agri	9.33%	11.23%	11.39%
Employment in non-agricultural sector	11192.3	11786.5	12313.8

Figure 60: Informal sector workers by educational level

Edu level	2012	2013	2015
No formal edu	53.282	59.86	59.7
Primary edu	271.126	294.117	312.9
Secondary edu	629.686	817.152	864.2
Tertiary edu	89.885	113.095	166.2

Figure 61: Unemployment rate by age groups

	Average unemployment	15–19	20–24	25–29	30 and above
2000	3.00%	13.50%	6.31%	2.34%	1.11%
2001	3.53%	17.62%	7.61%	2.57%	1.28%
2002	3.48%	17.35%	8.26%	2.58%	1.21%
2003	3.61%	16.38%	8.84%	2.78%	1.32%
2004	3.54%	16.40%	9.96%	2.81%	1.08%
2005	3.53%	17.88%	9.68%	3.07%	1.06%
2006	3.33%	15.95%	9.37%	3.18%	1.03%
2007	3.23%	16.52%	9.23%	3.17%	0.95%
2008	3.34%	17.86%	8.87%	2.99%	1.19%
2009	3.69%	18.17%	10.14%	3.35%	1.47%
2010	3.29%	16.01%	8.53%	3.02%	1.18%
2011 ^r	3.05%	14.30%	8.37%	2.79%	1.10%
2012 ^r	3.03%	15.01%	8.45%	2.76%	1.05%
2013 ^r	3.11%	14.54%	8.42%	3.45%	1.06%
2014 ^r	2.88%	13.04%	8.52%	3.31%	0.86%
2015	3.10%	15.73%	9.32%	3.50%	0.91%

Figure 62: Proportion of the unemployed by age group

Proportion of the unemployed				
	15-19	20-24	25-29	30 and above
2000	30.01%	34.96%	12.58%	22.45%
2001	31.80%	34.26%	11.57%	22.37%
2002	29.34%	37.02%	11.82%	21.83%
2003	26.44%	38.61%	12.17%	22.79%
2004	25.88%	42.11%	12.63%	19.39%
2005	25.24%	41.47%	14.18%	19.10%
2006	21.87%	42.72%	15.70%	19.72%
2007	22.40%	42.46%	16.16%	18.98%
2008	23.20%	38.97%	14.87%	22.96%
2009	19.67%	39.16%	15.29%	25.89%
2010	20.92%	39.71%	17.19%	22.18%
2011 ^r	20.04%	40.49%	17.11%	22.35%
2012 ^r	21.11%	40.30%	16.77%	21.81%
2013 ^r	19.21%	39.03%	20.11%	21.65%
2014 ^r	18.20%	42.14%	20.78%	18.88%
2015	18.68%	42.06%	20.36%	18.90%

Figure 63: Unemployment rate by educational level

Unemployment rate by education level	2010	2011 ^r	2012 ^r	2013 ^r	2014 ^r	2015
Overall	3.3%	3.1%	3.0%	3.1%	2.9%	3.1%
<i>No formal education</i>	3.7%	4.2%	3.9%	4.3%	3.1%	3.3%
<i>Primary</i>	2.0%	1.8%	1.7%	1.7%	1.3%	1.5%
<i>Secondary</i>	3.6%	3.1%	3.2%	3.1%	2.9%	3.2%
<i>Tertiary</i>	3.5%	3.7%	3.4%	3.8%	3.8%	3.8%

Figure 64: Labour force by education level

Year	2010	2011 ^r	2012 ^r	2013 ^r	2014 ^r	2015
Labour force	12,303.9	12,740.7	13,221.7	13,980.5	14,263.6	14,518.0
<i>No formal education</i>	452.7	418.7	415.9	436.0	396.0	446.3
<i>Primary</i>	2,168.2	2,168.9	2,244.9	2,388.5	2,264.6	2,229.6
<i>Secondary</i>	6,792.0	7,050.9	7,367.0	7,779.5	7,882.8	7,836.6
<i>Tertiary</i>	2,891.0	3,102.1	3,193.9	3,376.5	3,720.3	4,005.4

Figure 65: Number of tertiary educated workers & high-skill jobs

	2010	2011	2012	2013r	2014r	2015
No. of high skill occupations	3,290	3,234	3,217	3,268	3,408	3,588
No. of tertiary educated labor force	2,891.0	3,102.1	3,193.9	3,376.5	3,720.3	4,005.4

Figure 66: Proportion of tertiary educated workers in mid-low skill employment

	Underemployment for entire workforce with tertiary education (LFS)	Underemployment for fresh undergraduates (Tracers)	Underemployment for fresh diploma graduates (Tracers)	Underemployment for all fresh graduates (Tracers)
2011	29.3	27.7	49.5	33.6
2012	30	29.7	54.5	37.3
2013	31.1	31.3	57.2	39.3
2014	31.5	34	61.1	41.2

Figure 67: Number of SL1M participants by home state

Origin state	2013 number of participants
Selangor	1,894
Sabah	1,579
Kelantan	1,473
Kedah	1,452
Perak	1,280
Terrenganu	1,276
Johor	1,261
Pahang	867
Sarawak	765
KL	687
Negeri Sembilan	543
Penang	437
Melaka	360
Perlis	200
Putrajaya	138
Labuan	20

Figure 68: Growth in nominal / real mean & median wages (2010-2015)

Wage	CAGR	2010	2011r	2012r	2013r	2014r	2015
Nominal mean	6.3%	1,772	1,809	1,906	2,023	2,193	2,312
Real mean	3.9%	1,772	1,753	1,817	1,889	1,985	2,046
Nominal median	4.9%	1,265	1,320	1,450	1,500	1,500	1,600
Real median	2.6%	1,265	1,279	1,382	1,401	1,357	1,418

Figure 69: Median wage & number of employed persons by sector (2015), and Figure 70: CAGR of median wage & employment by sector (2011-2015)

Sector	Median wage 2015	CAGR of median wage	Number of employment 2015	CAGR of employment
Education	3,990	8.8%	899.0	3.54%
Mining	3,600	13.1%	104.4	9.17%
Info & comm	3,100	5.5%	214.2	0.92%
Real estate	3,000	5.7%	71.2	3.86%
Finance & insurance	3,000	4.7%	354.4	2.64%
Public admin	2,800	6.7%	751.0	0.03%
Professional	2,600	6.8%	359.3	2.27%
Health & social work	2,550	6.3%	573.1	10.52%
Electricity...air conditioning supply	2,550	1.5%	61.7	4.88%
Transportation & storage	1,800	4.7%	615.0	0.45%
Other service	1,500	10.7%	233.1	6.41%
Arts	1,500	9.3%	81.7	-1.70%
Manufacturing	1,500	5.7%	2,322.7	0.87%
Water supply activities	1,500	3.6%	72.1	0.07%
Construction	1,440	4.7%	1,309.9	3.27%
Wholesale and retail	1,350	6.7%	2,361.4	4.17%
Admin & support	1,100	5.1%	634.8	9.10%
Accommodation & food	1,080	6.2%	1,150.8	4.88%
Agriculture	1,050	8.0%	1,753.9	5.39%

Figure 71: Median earnings by education level & CAGRs (2011-2015)

Education level	2015	CAGR (2011-2015)
Degree	4,350	5.6%
Diploma	2,800	3.9%
STPM/Certificate	2,000	5.7%
Total	1,600	4.9%
SPM and below	1,400	3.9%
No certificate/Not applicable	1,000	8.3%

Figure 72: Median earnings by occupation (2015)

Occupation	2015	CAGR (2011-2015)
Managers	5,300	7.3%
Professionals	4,300	8.2%
Technicians and associate professionals	2,700	6.1%
Clerical support workers	1,900	6.1%
Craft and related trades workers	1,400	6.7%
Plant and machine-operators and assemblers	1,400	8.8%
Skilled agricultural, forestry and fishery workers	1,225	11.2%
Service and sales workers	1,200	4.7%
Elementary occupations	1,000	5.7%

Figure 73: Median income and share of low-skill jobs by state

Negeri State	2015 Median Income
Malaysia	1,600
Johor	1,900
Kedah	1,310
Kelantan	1,200
Melaka	1,600
Negeri Sembilan	1,800
Pahang	1,500
Pulau Pinang	1,700
Perak	1,500
Perlis	1,495
Selangor	2,175
Terengganu	1,400
Sabah	1,100
Sarawak	1,260
W.P. Kuala Lumpur	2,200
W.P. Labuan	1,800
W.P. Putrajaya	2,967

Table 12: CAGR in median & mean wages by state (2011-2015)

State	CAGR in median wage	CAGR in mean wage
Sabah	10.0%	6.6%
Selangor	8.0%	7.6%
W.P. Labuan	7.9%	7.0%
Johor	7.9%	6.7%

Kedah	7.0%	6.6%
Perak	6.9%	5.9%
W.P. Putrajaya	6.8%	6.6%
Terengganu	6.2%	6.5%
Melaka	6.2%	5.3%
Sarawak	5.9%	4.4%
Negeri Sembilan	5.8%	5.5%
Perlis	5.6%	7.9%
Pulau Pinang	5.4%	4.9%
Kelantan	4.7%	5.8%
Pahang	4.5%	5.1%
W.P. Kuala Lumpur	3.7%	8.7%

Figure 74: Number of foreign workers in Malaysia

Year	Total
2000	807,096
2001	849,829
2002	1,067,529
2003	1,336,980
2004	1,470,090
2005	1,815,238
2006	1,869,209
2007	2,044,805
2008	2,062,596
2009	1,918,146
2010	1,817,871
2011	1,573,061
2012	1,571,589
2013	2,250,322
2014	2,073,414
2015	2,135,035

Figure 75: Cumulative increase in employment (2010-2015)

	TCumulative	FCumulative
2010	0	0

2011	452	-244.81
2012	921	-246.282
2013	1645.9	432.451
2014	1953.1	255.543
2015	2168.2	317.164

Figure 76: Share of foreigners employed in selected sectors

Sector	2010	2011	2012	2013	2014	2015
Construction	21.71%	19.73%	19.47%	34.90%	33.58%	56.88%
Agriculture	30.82%	32.02%	28.55%	37.16%	29.41%	28.36%
Manufacturing	31.91%	26.14%	27.20%	33.94%	33.00%	19.39%