Report on Employment Trends and Data Availability in the Philippines

1. Overview of economic and demographic trends affecting employment

The Philippines can no longer be regarded as the laggard economy in the Asian region. The country is on the verge of regaining decades lost to slow growth and maligned governance. The current Administration's good governance efforts instil business confidence that have kept the country on the investors' radar even amid the financial volatility gripping global economies.

Recently, the Philippines was one of the fastest growing economy among Asian countries for the second quarter of 2013, with the country's gross domestic product (GDP) growing by 7.5%, matching the pace of China; and faster than other Southeast Asian economies such as Indonesia (5.8%), Vietnam (5.0%), and Malaysia (4.3%). The development surprised even the optimist analysts who anticipated on growth of 5-6%, despite the downward sliding world economy.

Growth was attributed to the strong performance of the manufacturing and construction sectors, as well as the increase in government and consumer spending. Domestic consumption is also one of the main drivers of growth; fuelled by remittances from about 10 million Filipinos overseas. Moreover, many attribute the country's sterling performance from sustained confidence in the Aquino government that equates good governance with good economics, transparency in transactions, and budget discipline.

The country this year attained credit-rating upgrades from both Standard & Poor's and Moody's to one rung below investment grade which is likely to help attract more investment and increase spending on infrastructure.

To sustain the growth the government is focusing on the sectors that generate employment like manufacturing, industry and agribusiness which have stronger industrial base. In the labor market signalling study of Department of Labor and Employment (DOLE) dubbed Project JobsFit: The DOLE 2020 Vision, eleven (11) industries were identified as key employment generators and identified more than a hundred viable occupations that correspond to skills needs of these industries. The expanding Information Technology – Business Process Management (IT-BPM) sector alone estimated 1.3 million jobs are to be created by 2016 and in the revitalization of the tourism industry around 3.8 million more jobs are targeted to be generated from 2013 to 2016.

To create quality employment poses the greatest challenge in the Aquino administration as nearly two-fifths (or 39.5%) of those working within the country are vulnerable workers (i.e. self-e,played and unpaid family workers) largely in the informal sector. Latest results of the Labor Force Survey (LFS) April 2013 also show unemployment and underemployment levels remain high. The unemployment rate in the Philippines rose to 7.5 percent, while underemployment rate was at 19.2 percent in April. The number of underemployed people was estimated at 7.25 million, with more than 80 percent of them working in the agriculture and services sectors. Notably most of the unemployed are educated youth who had high school education (42.7% or 1.318 million) and college education (35.8% or 1.105M). Adding

to the woes of the government is the exodus of talented OFWs lured by higher wages and enticing benefits abroad.

In the President's 2nd State of the Nation Address and its Social Contract with the Filipino People the President instructed concerned government agencies to devise convergent programs that would address the job-skill mismatch problem and improve Filipino workers access to decent and productive employment, ensuring a ready supply of needed skills. These programs are:

- 1. Review of Education and Training Curriculum
- 2. Development of the Philippine Qualifications Framework (PQF)
- 3. Implementation of the Career Guidance Advocacy Program
- 4. Optimizing the Phil-JobNet and Strengthening Labor Market Information (LMI)

Even earlier in the President Aquino's term, he instructed the revival of the Community Based Employment Program (CBEP), which prioritizes the 'temporary jobs" created by the infrastructure program within the locality of the community, to create employment. The program interventions are expanded nationwide to strengthen job creation for the poor through employment-intensive infrastructure programs and community based-programs in distressed/remote areas, providing temporary or immediate employment to skilled, semi-skilled, and low-skilled workers in the community where government programs are undertaken. The program created 2.3 million jobs in 2012.

2. Current data collections

2.1 Main data collections

Collection name	Frequency with which data collection takes place	First year for which data are available	How often results are published	How data can be obtained	Main variables collected
(Please add as many rows are are required)	For example, monthly	Start year for consistent time series	For example, quarterly	Please identify the internet addresses or publication details of key data releases	For quantitative data only. Please also include either a link to a website where the full set of variables are available, or include this information as an attachment
Labor Force Survey (LFS)	Quarterly	1990	Quarterly	LFS reports can be accessed on the National Statistics Office website (http://www.census.gov.ph/statistics/survey/labor-force) Highlights of the survey are also published in the LabStat Updates of the Bureau of Labor and Employment Statistics (BLES) (http://www.bles.dole.gov.ph/PUBLICATIONS/LABSTAT%20UPDATES/vol17_10.pdf)	For All Persons: Relationship to the Household Head Age as of Last Birthday Marital Status Highest Grade Completed For Employed Persons: Main Activity/Usual Occupation During the Past Twelve Months Primary Occupation Kind of Industry/Business Class of Worker Nature of Employment Normal Working Hours Per Day During the Past Week Total Hours Worked During the Past Week Whether Wanting More Hours of Work

BLES Integrated Survey (BITS) Project JobsFit: The DOLE	Every two (2) years Results are	2002/2003	Every two (2) years	Can be accessed through the BLES Homepage (http://www.bles.dole.gov.ph) or BLES Electronic Archived Microdata System (BEAMS) (http://www.bles.dole.gov.ph/beams) Data highlights are published in the following reports: - LABSTAT Updates - Philippine Industry Yearbook of Labor Statistics - Yearbook of Labor Statistics Summary of Findings and Recommendations of	 For Persons Who Had No Job/Business: Job Search Method Number of Weeks Looking for Work Availability for Work Seeking or not seeking for work Reasons for not seeking work Previous job experience/last occupation Categories of employment and employees Occupational shortages and surpluses Establishment practices on balancing work and family responsibilities and working time arrangements Establishment practices on occupational safety and health Cases of occupational injuries (by type, part of body injured, cause, agent, major occupation group), frequency and incidence rates of cases of occupational injuries with lost workdays, severity rates and average days lost of cases of occupational injuries resulting to temporary incapacity Cases of occupational diseases by type of disease Commuting accidents and workers injured Key Employment Generators
2020 Vision	reviewed every two (2) years		years	the consultative study can be accessed though http://www.ble.dole.gov.ph/pjf/FinalReport.pd f	Emerging IndustriesHard-to-fill OccupationsIn-demand Occupations

2.2 Method for identifying shortages and surpluses of labour and qualified workers

The scope of monitoring programs

The DOLE utilizes surveys and devises strategies to monitor shortages and surpluses of labor and qualified workers in the market. One of these is the DOLE-BLES Integrated Survey (BITS) that carried a module on Occupational Shortages and Surpluses which is one of the primary sources of data used to monitor shortages and surpluses of labor and skills in the Philippine labor market. The BITS is a nationwide sample survey on non-agricultural establishments with at least 20 workers conducted by the Bureau of Labor and Employment Statistics (BLES) every two years – the latest available results was drawn from the 2009/2010 survey..

The DOLE also continuously engages the industries/employers in focus group discussions and consultations to directly gather first hand information on the requirements of the labor market. The most recent of the labor market signalling activities conducted is the Project JobsFit: The DOLE 2020 Vision done in 2010. One of the main outputs of the project is the identification of the hard-to-fill and in-demand skills corresponding to the key employment generators and emerging industries for the next ten (10) years. (This will be more elaborately discussed in Section 2.3)

Further, DOLE is currently developing the Skilled Occupational Shortage List (SOSL). The list identifies the skills in shortage as a signal to the academe and industry to expand training /educational opportunities in identified occupations. The SOSL would also serve as basis for policy formulation in the deployment and/or entry of skilled workers to promote "brain gain" or technology transfer. The list is yet to be finalized and still subject to validation and consultations with concerned stakeholders.

Data used to monitor shortages and surpluses

The BITS aims to generate integrated data sets on: (1) **employment of specific groups of workers**, (2) **occupational shortages and surpluses**, (3) practices on balancing work and family responsibilities, (4) working time arrangements, (5) occupational safety and health practices, and (6) occupational injuries and diseases.

Main topics covered by the survey are total employment by category of workers and specific groups of workers; outsourcing/contracted-out activities within and outside the premises of establishments; and occupational shortages and surpluses which are directly related to monitoring the trends in the demand and supply of workers in the labor market.

The occupational and shortages survey specifically presents statistics on the following: (1) top hard-to-fill vacancies by occupation groups sorted by number of vacancies; (2) reasons why vacancies were difficult to fill; and (3) duration of recruitment. In this survey, hard-to-fill vacancies were defined as vacancies for which establishments found difficulties in recruitment.

Project JobsFit is essentially an environmental scanning activity that aims to surface the issues and the corresponding recommendations that best respond to the challenge of creating and facilitating jobs across industries. Industry leaders/captains were engaged in dialogues, to gather their insights about investment decisions and directions in the country and what skills do they really need.

For the SOSL, data shall be derived from macro and micro information gathered through surveys and administrative data, and validated through consultations with concerned stakeholders.

How 'shortages' and 'surpluses' are identified and defined

In the Occupational and Shortages survey, occupations in the "top hard-to-fill vacancies" list refer to occupations where the number of hard-to-fill vacancies outnumber the easy-to-fill ones. For example, accountant and auditor are part of the "top hard-to-fill" list because there were more respondents who regarded the occupations as hard to fill (2,421) than those who considered the same as easy to fill (1,653). On the other hand, computer programmer is not part of the "top hard-to-fill" list since there were far more easy-to-fill vacancies (2,881) than hard-to-fill ones (995).

Other definitions and explanations that would aid in explaining the concepts for describing shortages and surpluses can be viewed through this link:

http://www.bles.dole.gov.ph/ARCHIVES/LABSTAT%20UPDATES/issues/vol15 36.pdf

Occupations listed in SOSL are those jobs with vacancies for which establishments have encountered difficulties in hiring skilled/qualified individuals due to shortage of supply. Further, the occupation must meet two of the following first 3 criteria and the fourth criterion:

- a. Long lead time skills are highly specialized and require extended learning and preparation time over several years.
- b. High use skills are deployed for the uses intended and most in the occupation have the requisite qualification.
- High risk disruptions caused by skill shortages could result in bottlenecks in supply chains, imposing significant economic or community costs because businesses or organizations cannot operate at capacity.
- d. High information the quality of information about the occupation is adequate to the task of assessing future demand and supply.

Occupations declared critical based on the recommendation of the DOLE Technical Working Group on Mission Critical Skills (MCS) shall also be included in the SOSL. MCS are defined as skills that reflect the primary function of the organization without which mission critical work cannot be completed and which skills are internally developed and require extensive training, thus, not easily replaceable.

2.3 Method for projecting future employment

Methodology used to develop the projections

In 2009, the DOLE initiated a nationwide research and forward-looking activity dubbed as "PROJECT JOBSFIT: The DOLE 2020 Vision" that aims to identify industries from six to ten years beyond 2010 the industries that would drive employment growth, including the corresponding skills requirements, in all regions nationwide.

The project's main outputs include the (a) identification of key employment drivers for the period 2011-2020; (b) assessment of the availability of the present and projected in-demand skills; and (c) identification of gaps and recommendation of strategies to address the gaps. The required

information were gathered from the stakeholders' consultations all throughout the 16 regions in the Philippines. The conduct of regional consultations drew inputs from the focus group discussions among the multi-sectoral partners and key informants on major industries and critical skills in their locality. The consultations have two parts: (a) consultation with Government Sector focusing on initial environmental scanning of the regional performance in the previous years to present; and (b) consultation with Key Industry Players (officers of major enterprises and industry associations) in the regions. An integration workshop was conducted at the national level to discuss and validate the consolidated findings and recommendations that came up from the regional consultations.

A documentation report enumerating summary findings and recommendations of the study was published and launched in June 2010. This can be downloaded from this link: http://www.ble.dole.gov.ph/pjf/FinalReport.pdf.

Further, the Project JobsFit is subject to biennial review to address the major changes on trends in the labor market since the study was conducted. The first review is currently on-going. Stakeholder consultations have been conducted at the regional level to jumpstart the first review process. The key and emerging industries identified in the report as well as the enumerated issues and recommendations will be reviewed in relation to current trends and progress made by government in the past two (2) years to implement said recommendations. At the national level, an integration workshop recently was held to validate regional synthesis reports and subsequently, a consolidated report containing an updated industry outlook and employment prospects will be launched in a manpower summit to be organized by DOLE. The updated report is expected to be released by the end of 2013. This will be uploaded on the BLE website (http://www.ble.dole.gov.ph).

<u>Time period covered by projections</u>

The projection covers a ten-year period of 2011 to 2020. As provided in the report, it is deemed necessary to review the document once every two years.

Industries and occupations covered by the projections

The findings of the Projects JobsFit highlight the list of key employment generators (KEGs) or industries/sectors with the greatest potential to generate employment, and emerging industries or those that are growing at a rate faster than the economy and exhibiting potential. It also enumerates the corresponding skills requirements of each identified industries, more specifically those (a) in-demand occupations that refer to active occupations/job vacancies posted/advertised recurrently by and across industries/establishments; and (b) hard-to-fill occupations which are occupations/job vacancies for which an establishment has encountered difficulties in managing the recruitment process.

Coverage of future demand for qualified workers

The findings of the research study also consider the corresponding competency standard/program or course requirements of the critical skills enumerated as in-demand and hard-to-fill occupations.

3. Current labour market conditions

3.1 Recent trends in educational attainment of the population

The Philippines' education sector is trifocalized into three (3) governing bodies: the Department of Education (DepEd) for basic education; the CHED for tertiary and graduate education, and the Technical Education and Skills Development Authority (TESDA) for technical-vocational and middle-level education. Below are analyses showing the trends in enrolment and graduates of the basic education (primary and secondary), tertiary level, and technical-vocational courses based on the data from the DepEd, CHED and TESDA, respectively.

Primary and Secondary School Enrolments and Graduations

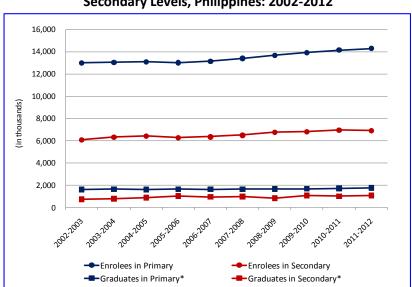


FIGURE 1 - Number of Enrolees and Graduates in the Primary and Secondary Levels, Philippines: 2002-2012

Over the past 10 years, the trends of enrolment in both private and public schools for primary and secondary levels have been increasing through the years.

On the other hand, the general trends of the number of graduates for both levels show very little variation. Nonetheless, the number of secondary level graduates has vaguely escalated from 2002 to 2006, and then has slightly decreased in 2006-2009. It again increased from then, reaching its highest for the 10-year period at school year 2011-2012.

As the data on graduates include public schools only, no comparison between enrolment and graduation data can be concluded.

^{*} Figures are from government/public elementary and secondary schools only Source: Department of Education

Trends in Tertiary Education Enrolments and Graduations

3,500 3,000 2,500 1,000 500

FIGURE 2 - Number of Enrolees and Graduates in Higher Education Institutions, Philippines: 1998-2011

Source: Commission on Higher Education

Although there is rapid growth in the number of enrolees in higher education institutions, the change in the number of graduates has been slow in the past decade.

---Enrolees

1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

--- Graduates

Rapid Growth in Medical and Allied Disciplines

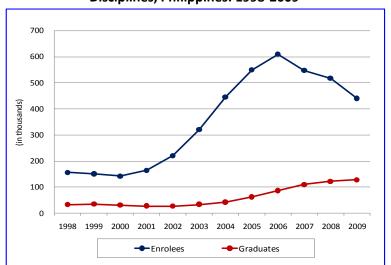


FIGURE 3 - Number of Enrolees and Graduates in Medical and Allied Disciplines, Philippines: 1998-2009

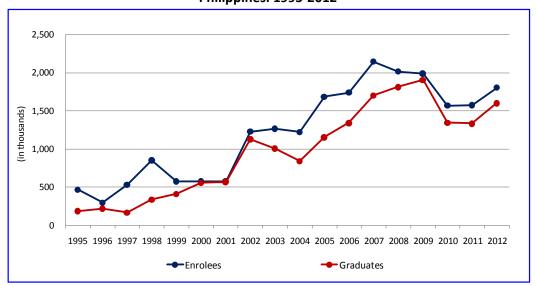
Source: Commission on Higher Education

As shown in Figure 3, enrolment and graduates in the field of Medical and Allied Disciplines showed rapid growth starting 2001. As for the number of enrolees, it peaked during 2006 and has started to

decline until 2009. On the other hand, the number of graduates steadily increases over the past ten (10) years. This is particularly evident in Nursing courses.

Trends in Technical-Vocational Education Enrolments and Graduations

FIGURE 4 - Number of Enrolees and Graduates in Technical-Vocational Education,
Philippines: 1995-2012

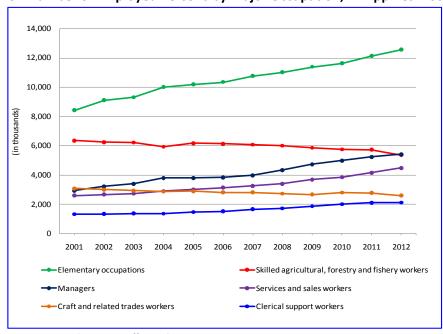


Source: Technical Education and Skills Development Authority

The graph above shows a general rising trend in the number of enrolment and graduates in technical and vocational courses despite its erratic behavior across the years.

3.2 Recent trends in employment by occupation

FIGURE 5 - Number of Employed Persons by Major Occupation, Philippines: 2001-2012



Source: National Statistics Office, Labor Force Survey

Managers, Services and Sales Workers, Clerical Support Workers, and Workers with Elementary occupations were amongst the biggest gainer in terms of number of employees over the period of 2001-2012, with compound annual growth rate (CAGR) of 5.3%, 4.7%, 4.0% and 3.4%, respectively.

On the other hand, population of Skilled Agricultural, Forestry, and Fishery Workers and Craft and Related Trades Workers have a gradually declining trend. These occupational groups registered a CAGR of -1.4%.

3.3 Recent trends in employment by industry

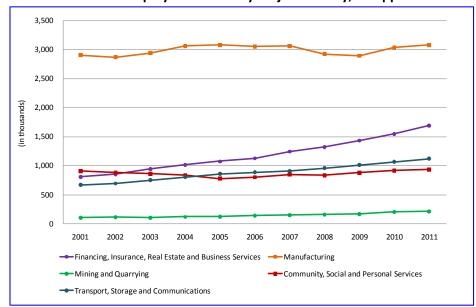


FIGURE 6 - Number of Employed Persons by Major Industry, Philippines: 2001-2011

Source: National Statistics Office, Labor Force Survey

Almost all of the major industry groups were generally increasing over time. For the period 2001-2011, the Financing, Insurance, Real Estate, and Business Industry recorded the highest CAGR of 6.95%. This may be attributed to the growing numbers of the establishment of foreign companies related to the Business Process Outsource in the Philippines. It is closely followed by the Mining and Quarrying Industry with 6.71% and Transport, Storage and Communications Industry with 4.8% percent. Comparing to other groups, these industries relatively have smaller employers. Agriculture, Fishing, Hunting and Forestry; and Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles and Personal and Household Goods Industries are the two (2) largest employers in the local labor market, accounting for an average of 12 million and 6 million employees/workers, respectively.

Industries with volatile trends were Manufacturing; and Community, Social and Personal Services. Employment in the Manufacturing Industry has been increasing from 2001 to 2004; no significant changes were exhibited until 2007; however, sudden decrease occurred from 2007 to 2009 until it

recovered in 2010. The Community, Social and Personal Services Industry exhibited a decreasing trend from 2001 to 2005; from then, employment growth in this industry has been consistently low.

Starting 2012, the 2009 Philippine Standard Industrial Classification (PSIC) was used. It was patterned on the United Nations' International Standard Industrial Classification, Revision 4 (ISIC Rev 4). In the 1994 PSIC, Agriculture and Fishing were two separate divisions but in the 2009 PSIC those two were combined. Two new divisions were formed which were culled from former divisions; the Water Supply; Sewerage, Waste management and Remediation activities(from the Electricity, Gas, and Water Supply) and the Information and Communication (from the Transportation, Storage, and Communication). The Financing, Insurance, Real Estate and Business Services were split into four major divisions namely: (1) Financial and insurance activities, (2) Real estate activities, (3) Professional, scientific and technical activities, and (4) Administrative and support service activities. The 2009 PSIC was first officially used in 2012.

3.4 Occupations and industries which are currently experiencing a shortage of suitable workers

The occupations and industries which are currently experiencing a shortage of suitable workers are those related to Science and Technology and a dearth of professional workers. These are mostly in the high-end categories, such as managers, supervisors, professional and technical and associate professionals, including specialist. The shortages are mostly a result of the migration of workers who seek greener pastures abroad or what has been the phenomenon of "brain drain" in the country. The lure of higher pay, comprehensive benefits and in some instances lack of job opportunities have more than strangled the labor market and affected major industries and sectors. A recent example of such shortage is the deficiency of meteorologist, astronomers and weathermen in the country which has crippled the local weather bureau. Another glaring reality is that most of the managers in large and multinational companies are foreigner in origin. Other specific occupations in shortage include system analyst, engineers, programmers and those in the health services particularly in pharmacist, medical technologist and medical doctors in different fields of specialization.

3.5 Occupations and industries which are currently experiencing a surplus of suitable workers

The Philippines is highly regarded as a labor exporting country which churns out more than a hundred thousand graduates from HEIs and of mid-level skills training from TVEI. The most evident sign of a surplus of suitable workers present in the country is the glut of unemployed nurses. There number has grown to more than 200,000 and continues to be a serious concern of the government. Although with their number, health services in the country, particularly in the rural areas receive minimal or in isolated cases, none at all, due to limited funding or government support for public hospitals and lack of opportunities or job post for these nurse graduates. This further compounds the problem of underemployment in the country which the government has locked into, together with the perennial problem of unemployment.

As of the latest results of the April 2013 Round of the Labor Force Survey (LFS), underemployment rate eased slightly to 19.2% from 19.3% a year ago, corresponding to 7.252 million underemployed persons in 2013. The decline occurred in the agriculture sector (-178,000; 2.967 million workers) but went up in the industry sector (+8,000; 1.224 million) and the services sector (+110,000; 3,061 million). The number of underemployed persons continues to grow among wage and salary workers (4.005M), which can be linked to the issue of low earnings particularly in private households and establishments as well.

Unemployment rate in April 2013 stands at 7.5% from 6.9% due in part to large losses in two sectors with large employment base, i.e., agriculture and trade, the number of unemployed reaching 3.086 million. Nearly half (48.2% or 1.487 million) of the total unemployed were young workers (aged 15-24 years old). Youth unemployment rate at 16.6% was more than twice the national average. To add, majority of the unemployed were educated, with high school education (42.7% or 1.318 million) and college education (35.8% or 1.105 million). Unemployment rate has steadily hovered at the 7.0% level for the past three years.

The informal sector in the country is measured as the total of those classified in the LFS as self employed workers (10.816 million) and unpaid family workers (4.127 million). The total number of the informal sector workers went down in April 2013 from 3.205 million to 3.075 million. A Millennium Development Goal Indicator, the proportion of the informal sector to total employed has gone down to 39.5% from 40.9% in 2012. It is noted for the fourth consecutive survey round of the LFS that the proportion has fallen below forty percent — which could imply a gradual shift in employment towards wage employment that is generally more productive and decent. Detailed information on the latest results of the April 2013 round of the LFS can be accessed through this link: (http://www.bles.dole.gov.ph/PUBLICATIONS/LABSTAT%20UPDATES/vol17_10.pdf)

3.6 Recent trends in the employment of people with different levels of educational attainment

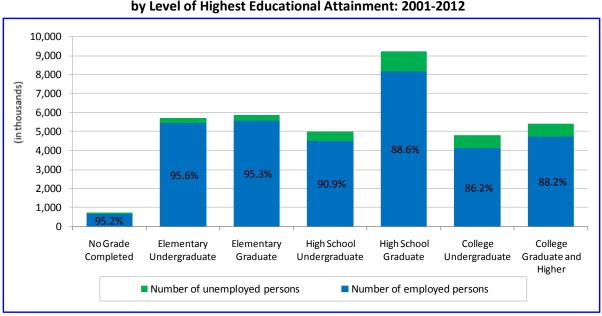


FIGURE 7 – Average Number of Employed and Unemployed Persons, and Employment Rate by Level of Highest Educational Attainment: 2001-2012

Source of basic data: Source: National Statistics Office, Labor Force Survey

The bars in Figure 7 represent the average number of persons in the labor force with corresponding average percentage of employment for each level of highest educational attainment for the 2001-2012 period. Based from these data, high school graduates were the largest in number across the years. It can be noted however that people with at least high school diploma have relatively smaller likelihood to be in employment compared to those with lower levels of educational attainment. This may be attributed to the information given in Section 3.2 that a large portion of the employed population belongs to the elementary occupation (labourers and unskilled workers) which normally do not require high qualifications or skills. These associations have been evident for the past two (2) decades, thus, it is a continuation of a long-running trend.

4. Expected future labour market trends

4.1 Current expectations of future trends in employment in different industries

The summary report of Project JobsFit, highlight the KEGs and skills requirements for the next ten years (2011 to 2020). In determining the KEGs (industries/sectors with the greatest potential to generate employment) and emerging industries (industrial sectors growing at a rate faster than the economy and exhibiting potential), consultations were done with the National Economic Development Authority (NEDA) and with the Department of Trade and Industry – Board of Investments (DTI – BOI) during the course of the study. Industries/sectors that would spur growth and spawn employment opportunities were identified through latest labor market information, trends in the market and projected contributions in the economy from GDP, GNP, FDIs and other pertinent economic indicators and data. Likewise, intensive consultation and research concerning overseas employment was done with associations of overseas recruitment agencies, and key informants in host countries, including an analysis of labor markets and National Development Plans of host countries by the POLOs. The twelve (12) KEGs that have the potential for absorbing the most number of the Philippine workforce are as follows:

- 1. Agribusiness
- 2. Business Process Outsourcing
- 3. Health and Wellness
- 4. Hotel, Restaurant and Tourism
- 5. Mining
- 6. Construction
- 7. Banking and Finance
- 8. Manufacturing
- 9. Ownership Dwellings and Real Estate
- 10. Transport and Logistics
- 11. Wholesale and Retail Trade
- 12. Overseas Employment

On the other hand, the following four (4) Emerging Industries are:

- 1. Creative Industries
- 2. Diversified/Strategic Farming and Fishing
- 3. Power and Utilities
- 4. Renewable Energy

4.2 Current expectations of future trends in employment in different occupations

One of the direct outcomes of the Project JobsFit is the development of the Career Guides on the KEGs, also known as Industry Career Guides (ICGs), which provide industry perspective on career prospects and other information covering the industry and even its sub-sectors including specific occupations and employment projections, among others. The first batch of ICGs (i.e., Agribusiness, Business Process Outsourcing, Construction, Health and Wellness, Hotel, Restaurant and Tourism, Mining, and Transport and Logistic) is posted on the BLE website (http://www.ble.dole.gov.ph).

4.3 Current expectations of the future demand for workers with different levels of educational attainment

The challenge of talent mismatch will continue to hound employers, as emerging markets put unprecedented value on talent as the driver of business success. The country possesses a huge pool of individuals with skills and talents but is not able to provide adequate training for the right skills. Paradigm shifts in the way we perceive education and training should be considered in the development and deployment of our human resources development strategies. Government must correct the perception that TVET graduates are inferior to university degree holders. The government must inform its people of the real opportunities that await TVET graduates. Likewise, government can opt to introduce incentives for young people and start calling different vocations an equivalent of a degree (same qualification). Moreover, employers/establishments are now in the hunt for individuals who possess the so called "21st Century Skills" (ex. innovative, critical thinking, technology proficient etc.) and has solid key life/people skills (ex. leadership, team player, loyalty, etc.). It is not anymore adequate that an individual earns a degree or is certified of his/her skills to land a job, but should necessarily possess a combination of the skills and talent cited.

4.4 Expectations for the future supply of labour

The Philippines has a status of an emerging economy. In recent years, the country has been steadily growing mainly due to inflow of foreign direct investment and remittances. The country now boast as the world's largest center for business process outsourcing and has a strong industrial sector based on the manufacturing of electronics and other high-tech components for overseas corporations. About 60 percent of the population in the Philippines is of working age, between 15 and 64. The figure is expected to continue increasing, which is not the case for many of its Asian neighbours even in Europe, whose populations are aging.

The country will remain competitive due to the sheer abundance of workers joining the labor force each year. With this growing number, the government has made clear to address the jobs-skills mismatch problem and ensure a ready supply of needed skills by instructing concerned national government agencies to devise convergent programs that would enhance the Filipino workforce. Foremost of these programs is the Review of Education and Training Curriculum which resulted with the crafting and implementation the K to 12 Program. This program will streamline the curriculum to improve the mastery of basic competencies; ensure seamlessness of primary, secondary, and post-secondary competences; and therefore expand job opportunities that will provide better preparation for higher learning. The students' technical, cognitive and behavioural skills are expected to be developed to ensure high productivity and flexibility in the work environment early enough. As these mechanisms are in place, graduates/potential workers enhances their chances to apply for occupations and meet minimum skills requirements to land decent and productive jobs characterized in wage employment, which in turn steadily wane the number of the informal workers.

Implementing the K to 12 Program also places the country with the educational standards set in the region. With the impending removal of barriers by 2015 as a result of the commitments in the ASEAN, there will be freer mobility of labor within the region and enhanced competition for employment. The competency and work-readiness of an individual would spell the difference in his/her landing a job.

The President on 1 October 2012 also signed Executive Order No. 83 s. 2012, entitled, Institutionalization of the Philippine Qualifications Framework (PQF). The PQF is a national policy that describes the levels of educational qualifications and sets the standards for qualifications

outcomes. This will improve recognition of the certification/qualifications/accreditations received by skilled workers and ease the movement of workers in the labor market through a harmonized national qualification system that is aligned with international standards.

Further, the Professional Regulation Commission (PRC) has undertaken efforts to institutionalize the continuing professional education that will provide and ensure the continuous education of a registered professional with the latest trends in the profession brought by advancements/modernization in technology and processes in industries, in order to enhance a professional capability in providing specialized services.

4.5 Expectations of any areas of future shortages or surpluses of workers

The review of the education and training curriculum hopes to plug the loopholes in the recent deficiencies of HEIs to graduate proficient workers that would meet the skills needs/requirements of industries/employers. Streamlining the education aims at reducing shortages or surpluses of workers to enhance an individual's chance of being employed or at most provides a fighting stance to compete in the local and international labor market. The different NGAs aligned with education -CHED, DepEd, TESDA and PRC have seen to it that the necessary revisions and updates in the programs and curriculums of HEIs and training centers have been set in motion and these modifications are in consultation with the industry leaders to gather primary information as to what the industry really needs. Moratoriums have been issued to non-performing educational institutions, particularly with those disciplines associated with large enrolments or resultant to a surplus of workers (e.g. Business Administration, Nursing, Teacher Education, Hotels and Restaurants Management and Information Technology education) and control their proliferation. Conversely, instructions/memorandums have also been issued to identify priority courses and direct scholarships to these courses and sectors (e.g. I.T., Agriculture and related fields, Teacher Education particularly in math and sciences, engineering, health sciences, arts and humanities, atmospheric science, environmental science, and math and science) to increase the number of graduates and workers. The government also encourages employers/industries to commit to re-skilling and up-skilling employees, new hires and even potential candidates by partnering with governments and other stakeholders. Retention programs should also be put into place to curtail job attrition, which will ensure the continuity and quality of the workforce.

To view said memorandums, you may access the links below:

http://www.ched.gov.ph/chedwww/index.php/eng/Information/CHED-Memorandum-Orders/2011-CHED-Memorandum-Orders

http://www.ched.gov.ph/chedwww/index.php/eng/Information/CHED-Memorandum-Orders/2010-CHED-Memorandum-Orders

Conclusion

There are three (3) methods of collecting labor market information that were introduced in this report: (a) the Labor Force Survey (LFS) that mainly gathers data on employment; (b) the BLES Integrated Survey (BITS) that includes data collection on shortages and surpluses of labor, and (c) the Project JobsFit which utilizes focus group discussions in identifying key employment generators and emerging industries in the future.

The education system in the Philippines is trifocalized into three governing bodies, each responsible for the basic education (i.e., primary and secondary levels); the technical-vocational and middle-level education; and tertiary and graduate education. In primary, secondary, and tertiary levels, enrolment figures were increasing however data on graduates show very gradual growths over the past decade. The Medical and Allied Disciplines show the sharpest increases from 2001 to 2006 which is most evident on Nursing courses. Further, enrolment and graduation data for Technical-Vocational courses illustrate erratic but generally increasing trend across the years.

Based on the results of the LFS, the top occupational groups that exhibited relatively the highest employment growth over the past decade include the Managers, Service and Sales Workers, Clerical Support Workers, and Elementary occupations. Those with opposite trends are Skilled Agricultural, Forestry, and Fishery Workers and Crafts and Related Trades Workers. In terms of industries, almost all were generally expanding in terms of employment. It is most evident however in the Financing, Insurance, Real Estate and Business Industry since the establishments of the Business Processing Outsource (BPO) facilities in the Philippines.

The occupations and industries which are experiencing shortages are those related to Science and Technology, particularly the professionals such as meteorologist. This phenomenon called "brain drain" is one of the labor market issues the Philippines is currently addressing.

In terms of employment projections, the DOLE through the Project JobsFit 2010 identified twelve (12) key employment generators or the industries/sectors with greatest potential to absorb the most number of the Philippine workforce and the four (4) emerging industries that will also generate future employment with its corresponding skills requirements.

As of the latest results of the April 2013 Round of the LFS, underemployment and unemployment rates slightly increased. The number of underemployed persons continues to grow among wage and salary workers, which can be linked to the issue of low earnings particularly in private households and establishments as well. Unemployment rate has increased due in part to large losses in two sectors with large employment base, i.e., agriculture and trade. Nearly half of the total unemployed are young workers. Further, the most evident sign of surplus of workers present in the country is the large number of unemployed and underemployed nurses.

As the economy faces the issue of 'jobless growth', the government has crafted measures on improving employment generation and facilitation that will be geared towards inclusive economic growth.

The national government agencies have devised convergent programs that would address job-skill mismatch and further advance the Filipino workforce. One of these programs is the review of the education and training curricula which resulted to the implementation of the K to 12 Program. This will streamline the curriculum to improve the mastery of basic competencies that will ensure high productivity and flexibility of young workers. Other convergent efforts to address job-skill mismatch include the development of the Philippine Qualifications Framework (PQF), Career Guidance Advocacy Program, and optimizing the Phil-JobNet (official job matching portal) and strengthening the labor market information.

Relevant websites and other references

The following are national government agencies that generate and/or develop statistics, reports, publications that may be useful to the project:

AGENCY	WEBSITE
Department of Labor and Employment (DOLE)	www.dole.gov.ph
DOLE - Bureau of Local Employment	www.ble.dole.gov.ph
DOLE - Bureau of Labor and Employment Statistics	www.bles.dole.gov.ph
Technical Education and Skills Development Authority	www.tesda.gov.ph
Professional Regulation Commission	www.prc.gov.ph
Department of Education	www.deped.gov.ph
Commission on Higher Education	www.ched.gov.ph
National Statistics Office	www.census.gov.ph
National Statistical Coordination Board	www.nscb.gov.ph
Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	www.bsp.gov.ph
National Economic and Development Authority	www.neda.gov.ph
Department of Trade and Industry	www.dti.gov.ph

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http://www.philstar.com/business/2013/08/08/1063541/dot-sets-employment-target-7.4-m-2016

Gayathri, Amrutha. (2013, August 29). *Philippine Economy Thriving Amid Asian Slowdown, Posts 7.5 Percent Growth In GDP In Second Quarter. International Business Times.* Retreived 2 September 2013 from http://www.ibtimes.com/philippine-economy-thriving-amid-asian-slowdown-posts-75-percent-growth-gdp-second-quarter-1401463

STATISTICAL TABLES

TABLE 1 - Number of Enrolees and Graduates in the Primary and Secondary Levels, Philippines: 2002-2012

(in thousands)

School	Prin	nary	Secoi	ndary
Year	Enrollees	Graduates	Enrolees	Graduates
2002-2003	12,996	1,601	6,097	749
2003-2004	13,033	1,640	6,334	815
2004-2005	13,097	1,625	6,415	893
2005-2006	13,007	1,643	6,299	1,016
2006-2007	13,145	1,628	6,363	958
2007-2008	13,411	1,646	6,506	970
2008-2009	13,687	1,671	6,764	855
2009-2010	13,934	1,675	6,806	1,068
2010-2011	14,166	1,703	6,955	1,013
2011-2012	14,301	1,767	6,927	1,083

^{*} Figures are from government/public elementary and secondary schools only Source: Department of Education

TABLE 2 - Number of Enrolees and Graduates in Higher Education Institutions,
Philippines: 1998-2011

(in thousands)

Year	Enrolees	Graduates
1998	2,279	307
1999	2,373	335
2000	2,431	351
2001	2,466	364
2002	2,427	384
2003	2,421	402
2004	2,402	387
2005	2,490	410
2006	2,584	421
2007	2,633	447
2008	2,624	445
2009	2,775	470
2010	2,952	482
2011	3,045	497

Source: Commission on Higher Education

TABLE 3 - Number of Enrolees and Graduates in Medical and Allied Disciplines, Philippines: 1998-2009

(in thousands)

Year	Enrolees	Graduates
1998	156	33
1999	151	34
2000	142	30
2001	164	27
2002	220	26
2003	320	33
2004	446	42
2005	550	62
2006	610	86
2007	548	110
2008	517	121
2009	440	128

Source: Commission on Higher Education

TABLE 4 - Number of Enrolees and Graduates in Technical-Vocational Education,
Philippines: 1995-2012

(in thousands)

Year	Enrolees	Graduates
1995	468	185
1996	297	218
1997	533	167
1998	851	335
1999	574	408
2000	574	556
2001	576	568
2002	1,227	1,127
2003	1,265	1,007
2004	1,220	840
2005	1,683	1,154
2006	1,737	1,341
2007	2,142	1,702
2008	2,014	1,813
2009	1,985	1,904
2010	1,569	1,344
2011	1,572	1,333
2012	1,805	1,601

Source: Technical Education and Skills Development Authority

TABLE 5 - Number of Employed Persons by Major Occupation, Philippines: 2001-2012

(in thousands)

Major Occupation	2001	2002	2003	2004	2005 ¹	2006	2007	2008	2009	2010	2011	2012	CAGR
Managers	2,921	3,217	3,398	3,775	3,784	3,811	3,958	4,327	4,722	4,979	5,217	5,403	5.3%
Professionals	1,323	1,385	1,349	1,353	1,395	1,404	1,454	1,526	1,608	1,686	1,732	1,816	2.7%
Technicians and associate professionals	748	819	882	883	858	880	908	876	932	954	985	1,057	2.9%
Clerical support workers	1,317	1,332	1,356	1,352	1,454	1,505	1,652	1,715	1,860	2,003	2,109	2,111	4.0%
Services and sales workers	2,582	2,658	2,715	2,888	3,005	3,121	3,248	3,394	3,672	3,838	4,141	4,475	4.7%
Skilled agricultural, forestry and fishery workers	6,353	6,240	6,220	5,921	6,161	6,127	6,069	6,000	5,851	5,747	5,715	5,347	-1.4%
Craft and related trades workers	3,075	2,993	2,932	2,866	2,887	2,803	2,811	2,730	2,662	2,792	2,769	2,590	-1.4%
Plant and machine operators and assemblers	2,283	2,197	2,348	2,429	2,446	2,495	2,573	2,354	2,218	2,259	2,245	2,115	-0.6%
Elementary occupations	8,420	9,097	9,303	10,005	10,176	10,343	10,749	11,021	11,385	11,622	12,118	12,563	3.4%
Special Occupations	135	124	133	143	146	147	138	147	150	156	161	124	-0.7%

¹ Data series starting 2005 is not strictly comparable with previous years' data due to the adoption of the revised unemployment definition starting April 2005 round of the LFS. CAGR – Compound Annual Growth Rate calculated by taking the nth root of the total percentage growth rate, where n is the number of years in the period being considered. Source: National Statistics Office, Labor Force Survey

TABLE 6 - Number of Employed Persons by Major Industry, Philippines: 2001-2011

(in thousands)

Major Industry	2001	2002	2003	2004	2005 ¹	2006	2007	2008	2009	2010	2011	CAGR
Agriculture, Fishing, Hunting and Forestry	10,850	11,122	11,219	11,381	11,628	11,682	11,786	12,030	12,043	11,956	12,268	1.1%
Mining and Quarrying	103	113	104	118	123	139	149	158	166	199	211	6.7%
Manufacturing	2,906	2,869	2,941	3,061	3,077	3,053	3,059	2,926	2,894	3,033	3,080	0.5%
Electricity, Gas and Water Supply	119	117	112	120	117	128	135	130	142	150	148	2.0%
Construction	1,585	1,596	1,683	1,700	1,708	1,677	1,778	1,834	1,891	2,017	2,091	2.5%
Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	5,255	5,613	5,601	5,872	6,147	6,202	6,354	6,446	6,736	7,034	7,399	3.2%
Hotels and Restaurants	2,118	2,162	2,310	2,427	2,451	2,483	2,599	2,590	2,679	2,723	2,775	2.5%
Transport, Storage and Communications	668	693	750	806	861	887	907	953	1,010	1,063	1,119	4.8%
Financing, Insurance, Real Estate and Business Services	808	855	942	1,018	1,075	1,127	1,244	1,321	1,434	1,546	1,691	6.9%
Public Administration and Defense, Compulsory Social Security	1,382	1,442	1,415	1,491	1,481	1,485	1,551	1,676	1,749	1,847	1,873	2.8%
Education	920	935	926	938	978	999	1,035	1,071	1,138	1,176	1,199	2.4%
Health and Social Work	314	348	371	361	375	359	373	392	421	451	452	3.4%
Community, Social and Personal Services	906	881	861	835	775	801	849	833	877	914	934	0.3%
Activities of households as employers; undifferentiated goods - and services producing activities of households for own use	1,218	1,313	1,399	1,487	1,517	1,612	1,740	1,729	1,880	1,926	1,950	4.4%
Extra-Territorial Organizations and Bodies	4	3	2	2	1	2	2	1	2	2	2	-6.1%

Data series starting 2005 is not strictly comparable with previous years' data due to the adoption of the revised unemployment definition starting April 2005 round of the LFS. CAGR – Compound Annual Growth Rate calculated by taking the nth root of the total percentage growth rate, where n is the number of years in the period being considered. Source: National Statistics Office, Labor Force Survey

TABLE 7 - Average Number of Employed and Unemployed Persons, and Employment Rate by Level of Highest Educational Attainment, Philippines: 2001-2012

(in thousands; except for percentages)

Level of Highest Educational Attainment	Average Number of Persons in the Labor Force	Average Percentage of Employed Persons	Number of Employed Persons	Number of Unemployed Persons
	(a)	(b)	(a*b)	(a*(1-b))
No Grade Completed	708	95.2%	675	34
Elementary Undergraduate	5,706	95.6%	5,456	250
Elementary Graduate	5,845	95.3%	5,571	274
High School Undergraduate	4,980	90.9%	4,526	455
High School Graduate	9,224	88.6%	8,176	1,048
College Undergraduate	4,801	86.2%	4,140	662
College Graduate and Higher	5,402	88.2%	4,763	640

Source of basic data: National Statistics Office, Labor Force Survey