



Making Growth Work for the Poor



A POVERTY ASSESSMENT FOR THE PHILIPPINES

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Foreword

To design the policies needed to help accomplish this goal, we need to understand not only the characteristics of the poor—who they are, where they are, and what their income sources are—but also the drivers of and impediments to poverty alleviation. We need to understand what efforts for poverty reduction have worked and what have not, and why. We need to understand which measures need to be strengthened and which need to be altered to put the country on a faster track to reducing poverty and becoming a middle-class society.

By addressing these issues through in-depth analysis, the report *Making Growth Work for the Poor: A Poverty Assessment for the Philippines*, prepared by the World Bank, supports the poverty reduction efforts of the Philippine government. The report finds that increased wage income and the movement of workers out of agriculture, transfers from government social programs, and remittances from domestic and foreign sources were major forces in the poverty decline over the past decade. These gains were tempered by growth that was slower and had a less pro-poor pattern than in many other East Asian countries, as well as the high inequality of income and wealth and the adverse impacts of natural disasters and conflicts.

The report emphasizes the importance of breaking the cycle of inequitable investment in human capital and lack of well-paying job opportunities that trap the poor in poverty, generation after generation. Children from poor households start life at a disadvantage. Malnourished and stunted, with poor access to quality health care, they are less likely to learn the skills they need and fulfill their potential. As adults, therefore, they earn low incomes and cannot afford to invest in their own children. They have little to meet their basic needs and nothing to save against emergencies. Frequent natural disasters buffet the poor, whose limited means to cope and disproportionate suffering push them deeper into poverty. Poverty is a threat to peace. In the parts of the country affected by conflict, where physical assets have been destroyed, families displaced, and human capital eroded, people are trapped in a cycle of conflict and poverty.

In addition to the challenges of addressing poverty, the Philippines is hindered by the limited expansion of its middle class. In the East Asia region over 2002–2015, the share of population that is economically secure and middle class increased from just over one-fifth to nearly two-thirds, but the share in the Philippines increased from 37 percent to just 44 percent. The lack of well-paying jobs limited the gains for labor from structural transformation. Every year, 1 percent of the employment shifted out of agriculture, but

most of those workers end up in low-end services jobs. Such limited gains for labor could negatively affect the country's long-term competitiveness.

The report concludes that making the pattern of growth more inclusive and providing more well-paying jobs will be crucial to helping people achieve higher and more stable incomes. It claims that steps to accelerate poverty reduction include creating more well-paying jobs; improving productivity in all sectors, including agriculture; reducing income and wealth inequality through more investments in people and skills development, enhancing the ability of the poor to participate in growth; rebuilding conflict-affected areas; and better management of risks and protection of the vulnerable.

We hope this report will stimulate debate on the implications of the poverty trends and profiles for the policy priorities and for accelerating progress on improving the lives of the Filipino people of conflict and poverty.

Mara K. Warwick

World Bank Country Director
Brunei, Malaysia, Philippines and Thailand

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Acronyms and Abbreviations

| | |
|--------------|--|
| ANC | Antenatal care |
| APIS | Annual Poverty Indicators Survey |
| ARMM | Autonomous Region in Muslim Mindanao |
| BIA | Benefit incidence analysis |
| BPO | Business process outsourcing |
| CCT | Conditional cash transfer (program) |
| CLHNS | Cebu Longitudinal Health and Nutrition Survey |
| CPI | Consumer price index |
| DHS | Demographic and Health Survey |
| DSWD | Department of Social Welfare and Development |
| EAP | East Asia and Pacific |
| ECCD | Early childhood care and development |
| ESC | Education Service Contracting |
| FDS | Family Development Sessions |
| FIES | Family Income and Expenditure Survey |
| GDP | Gross domestic product |
| GNI | Gross national income |
| GRDP | Gross regional domestic product |
| HFEP | Health Facilities Enhancement Program |
| ISF | Informal Settler Families |
| LFS | Labor Force Survey |
| LGU | Local government units |
| LIMC | Lower-middle-income-class countries |
| MDG | Millennium Development Goals |
| MNCHN | Maternal, Neonatal, and Child Health and Nutrition |
| NAT | National achievement test |
| NCR | National Capital Region |
| NEDA | National Economic and Development Authority |
| NEET | Not in employment, education, or training |
| NHA | National Health Account |

| | |
|-------------------|---|
| OCW | Overseas Contract Workers |
| OOP | Out-of-pocket spending |
| PER | Public Expenditure Review |
| PhilHealth | Philippine Health Insurance Corporation |
| PISA | Programme for International Student Assessment |
| PPAN | Philippine Plan of Action for Nutrition |
| PPP | Purchasing power parity |
| PSA | Philippine Statistics Authority |
| RCT | Randomized control trial |
| RDD | Regression discontinuity design |
| RHU | Rural health units |
| SWS | Social Weather Stations |
| TFR | Total fertility rate |
| TIMSS | Trends in International Mathematics and Science Study |
| UHNW | Ultra-high net worth |
| WDI | World Development Indicators |



Executive Summary

Growth and Poverty in the Philippines | Drivers of Poverty Reduction
Slower Progress Compared to Many Other East Asian Countries
Suggested Measures to Support Faster Poverty Reduction

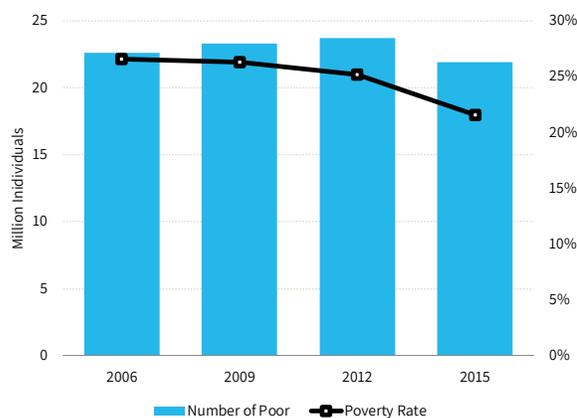
Executive Summary

Growth and Poverty in the Philippines

Robust growth in the Philippines over the past decade has helped to reduce the national poverty rate. Over 2006–2015, annual GDP growth averaged 5.4 percent, up from 4.1 percent in 1996–2005 and 3.4 percent in 1986–1995. With the population growing at a relatively rapid 1.7 percent a year, this amounts to about 3.8 percent in per capita GDP growth. The pace of poverty reduction has picked up recently. The national poverty rate fell to 21.6 percent in 2015, declining by an average of 1.2 percentage points per year over 2012–2015 compared with 0.6 percentage points per year over 2006–2015 (Figures 1 and 2).

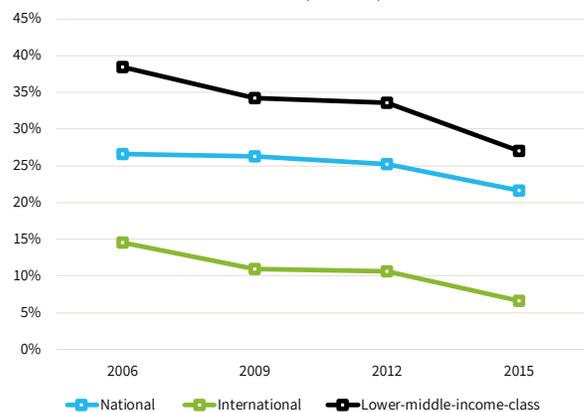
Despite the generally good economic performance, poverty remains high and the pace of poverty reduction has been slow compared with other East Asian countries. Growth was slower and less inclusive than in other high-performing countries in East Asia, and poverty reduction lagged (Table 1). Between 2006 and 2015, the Philippines poverty rate, as measured by the international poverty line (US\$1.90/day), declined only 0.9 percentage points per year compared to 2–2.5 percent points in China, Indonesia, and Vietnam, and, as measured by the lower-middle-income-class poverty line (US\$3.20/

Figure 1. National poverty rates and number of poor



Source: Staff estimates using various rounds of the Family Income and Expenditure Survey

Figure 2. Poverty trends based on national and international poverty lines



Source: Staff estimates using various rounds of the Family Income and Expenditure Survey

Table 1. Poverty rate in selected East Asian countries

| Country | US\$1.90/day (international poverty line) | | | US\$3.20/day (lower-middle-income-class poverty line) | | |
|--------------------|--|-------------------|------------------|--|-------------------|------------------|
| | 2016 ^a | 2015 ^b | Decline per year | 2006 ^a | 2015 ^b | Decline per year |
| Thailand | 0.7 | 0.0 | 0.1 | 6.2 | 1.1 | 0.7 |
| China | 18.8 | 1.9 | 2.4 | 43.5 | 20.2 | 3.3 |
| Vietnam | 19.5 | 2.8 | 2.1 | 51.3 | 11.6 | 5.0 |
| Indonesia | 27.5 | 7.5 | 2.2 | 65.6 | 34.0 | 3.5 |
| Philippines | 14.5 | 6.6 | 0.9 | 38.4 | 27.0 | 1.3 |

Source: Staff estimates. a. Data for Thailand are for 2006 and 2013, for China 2005 and 2012, for Vietnam 2006 and 2014. The Philippines uses income as the welfare measures, other countries use consumption.

day), it declined only 1.3 percentage points per year, compared with 3–5 percentage points for the same three countries. In 2015, 22 million Filipinos—more than one-fifth of the country’s total population—still lived below the national poverty line. Even at higher levels the Philippines lagged. The share of the population with per capita income above the global middle-income line of US\$15/day was only 9.2 percent in 2015. This is small compared to Malaysia (65.7 percent), Thailand (35.4 percent), and China (19.4 percent).

Other socioeconomic indicators show some progress, but significant challenges remain. School enrollment has notably increased in recent years and is now at levels similar to those of other countries at the Philippines’ level of income. Recently, the Philippines education cycle added universal and mandatory kindergarten as well as two years of senior high school. Yet student learning lags behind that of many East Asian countries. The dropout rate beyond elementary, particularly among the poor remained an important challenge. Access to clean water and sanitation and electricity have improved but remain unevenly distributed between the poor and non-poor. Poor informal settler families, in particular, suffered from lack of access to basic services. At the same time, social safety nets were expanded to cover most of the poor, while the generosity of the cash grants were limited. Pro-poor

policies and changes to health insurance coverage have resulted in increased use of health services, but household spending on health remains high and the quality of health services is uneven. Health outcomes for the poor have improved little, with high infant mortality rates, particularly among the poor, as well as high fertility rates and high child malnutrition rates that have not improved since the early 2000s.

The Philippine government has formulated strategic plans focused on reducing poverty and improving the living conditions of its people to meet these challenges. It has launched *AmBisyon 2040* (Philippines, NEDA 2016), a long-term vision to bring down poverty and improve the lives of the poorest segments of the population, and the *Philippine Development Plan 2017–2022*, the blueprint for the country’s development. Together, these documents set ambitious goals and set out a plan for the future with a central aim to convert the country into a prosperous middle-class society whose “people will live long and healthy lives, be smart and innovative, and will live in a high-trust society.” To achieve this vision, the government aims to reduce poverty to 13–15 percent by 2022, which will require annual poverty reduction of over 1 percentage point.

This poverty assessment aims to inform these efforts through in-depth study of the varying impacts of growth on the living conditions of the people of the Philippines. The report draws from a variety of sources—including the Family Income and Expenditure Survey and the Labor Force Survey—to examine what has worked and what has not worked in efforts to reduce poverty, as well as to identify ongoing challenges. It identifies key elements that affected the inclusiveness of growth, and provides policy suggestions to address the main constraints to accelerated poverty reduction and greater shared prosperity.

agricultural wages were the main contributor, accounting for over 50 percent of the reduction in poverty. While most of the poor in the Philippines continue to work in agriculture, data from the Labor Force Survey indicate that the share of the population in primary production agriculture declined by nearly 1 percentage point each year, from 36 percent in 2006 to 28 percent in 2015. As even lower-end industry and services jobs paid more than agriculture jobs, those who shifted to non-agricultural jobs improved their circumstances. The gradual movement of employment out of primary production agriculture and accompanying increase in agricultural wages and for unskilled labor in recent years were therefore key drivers of poverty reduction.

Drivers of Poverty Reduction

As illustrated in Figure 3, from a long-term perspective, the main forces powering the decline in poverty between 2006 and 2015 were:

- An increase in wage income and movement of employment out of agriculture;
- Government transfers; and
- Remittances from domestic and foreign sources.

The increase in wage income and movement of workers out of agriculture contributed about two-thirds of the poverty decline. Higher non-

Transfers from government social programs contributed about 25 percent of the reduction. The national conditional cash transfer program, *Pantawid Pamilya*, expanded rapidly during this period, and became the primary government social assistance program for the poor. It extends cash grants to 77 percent of poor households and contributes both to reducing poverty and to building human capital. Estimates indicate that the program reduced the national poverty rate by up to 1.5 percentage points, lifting 1.5 million people out of poverty. This is consistent with global experience with the impact of social safety net transfers on poverty. The World Bank report, *The State of Social Safety Nets 2018*, estimates that such transfers reduce the incidence

Figure 3. Contribution of income sources to poverty reduction, 2006–2015



Source: Estimates using various rounds of the Family Income and Expenditure Survey. International poverty is defined as household income per capita below US\$1.90 a day (2011 PPP), and lower-middle-income-class poverty is defined as household income per capita below US\$3.20 a day.



of international poverty by 36 percent. Moreover, even if the transfers do not lift beneficiaries above the international poverty line, they reduce the poverty gap by about 45 percent. *Pantawid Pamilya* also helped influence behavior change: it improved school enrollment of older children, encouraged early childhood education, and increased the health-seeking behaviors of beneficiaries.

Remittances from domestic and foreign sources contributed about 12 and 6 percent respectively.

Two-thirds of Filipinos (15 million households) receive domestic or foreign remittances. Foreign remittances are much higher in value; however, both transfer types have similar impacts on reducing the poverty rate (by up to 4 percentage points). This is because domestic remittances are more prevalent among the poor, while foreign remittances, though greater in value, are more common among the non-poor.

By contrast, the contribution of entrepreneurial incomes to poverty reduction was a negative 15 percent.

Entrepreneurial activities are varied: for poor rural households, a high share of entrepreneurial incomes typically come from agriculture-related activities; for the urban poor, from self-employed, lower-end services; while for

the non-poor, a high share comes from business. Its overall negative contribution to the aggregate poverty reduction observed in the Philippines during 2006–2015 may reflect the diverse nature of the work. Nevertheless, entrepreneurial income from agriculture-related activities is an opportunity to reduce rural poverty if efforts are made to address productivity constraints, access to finance, extension, and climate change.

Slower Progress Compared to Many Other East Asian Countries

While the causes are complex, careful analysis of what has been holding the Philippines back compared to many other East Asian countries points to the pivotal role of three factors:

- The lower pace and less pro-poor pattern of growth than in many other East Asian countries;
- High inequality of income and wealth; and
- The adverse impacts of natural disasters and conflict.

The lower pace and less pro-poor pattern of economic growth: The annual growth rates of GDP and GDP per capita in the Philippines—around 5.5 percent and 3.6 percent respectively in 2006–2015—place the Philippines tenth in the East Asia Region, with annual growth rates 4–5 percentage points

lower than in China, the region's top performer. Moreover, data from household surveys show even slower growth in household income per capita (on average, only 1.6 percent per year). These data indicate that less than 10 percent of the country's population has made it to the global middle class, and more than 10 percent of Filipinos remain vulnerable to falling into poverty. By contrast, elsewhere in the region, the economically secure and middle class comprised nearly two-thirds of the population in 2015, a significant increase from its share of just over a fifth of the population in 2002. In the Philippines, the increase was very modest, from 37 percent to 44 percent, and its slower progress with poverty reduction is likely linked to the limited progress achieved in providing economic mobility and growing the middle class. More rapid growth of the middle class can bring both intrinsic and instrumental benefits—not only does it enjoy greater economic security and higher living standards, but it can also provide instrumental benefits for others by being a key driver of growth, an influential constituency for better governance, and a major provider of income tax revenues needed to fund poverty reduction and risk-mitigating agendas, as well as investments for growth.

High-performing East Asian countries built booming manufacturing sectors that provide large numbers of labor-intensive jobs, absorbing the surplus low-skilled labor from agriculture and providing them significantly higher wage income. The Philippines has not fully developed a manufacturing base, which has placed it at a significant disadvantage. Workers moving out of agriculture generally end up in low-end service jobs, which limits the gains for labor from structural transformation. Wages are a major source of income for most households, so the 4 percent increase overall in real wages (for those reporting wages) over the past decade indicated by the Labor Force Surveys helps explain the limited progress with poverty reduction compared to other countries in the region. Furthermore, the even more limited real wage growth for the better educated, a mere 2 percent for the college educated, probably hindered the increase in the size of the middle class

and, worse, contributed to expatriation of highly educated and skilled workers. In the long run, low wages for the highly educated and highly skilled are likely to damage the economic competitiveness of the Philippines by making it even more attractive for these groups to move abroad in search of more remunerative opportunities.

For many other East Asian countries faster growth in agricultural productivity has also been a key driver of poverty reduction. Agriculture, which employs most poor people in the Philippines, has experienced minimal growth in the past decade, contributing to GDP growth by an average of 0.2 percentage points (compared to 1.9 percentage points for industry and 3.4 percentage points for services) over the period of 2006-15. In addition, compared with countries such as China, Indonesia, Malaysia, and Thailand, the gains from structural transformation, or the shift from agriculture toward non-agricultural activities, were limited, and growth in labor productivity relied disproportionately on within-sector productivity growth. As a result, the responsiveness of poverty reduction to growth in these countries has been faster than in the Philippines. In the past decade, the poverty rate in the Philippines, measured by the lower-middle-income-class poverty line, declined by only 0.3 percentage points for each percentage point of growth of GDP per capita, compared with declines of 1.0 percentage point in Vietnam and 0.8 percentage point in Indonesia.

High inequality of income, wealth, and opportunities:

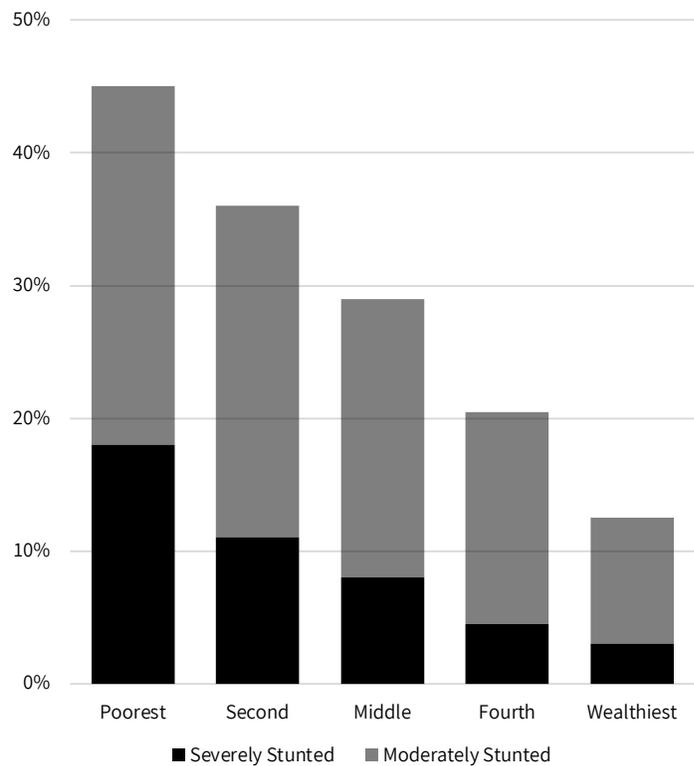
The Gini coefficient in the Philippines has hovered around 45 percent over the past decade. The Credit Suisse Wealth Report estimates that the top 1 percent owned more than half of the nation's wealth, the fourth highest after the Russian Federation, Turkey, and Hong Kong, SAR China. This high concentration of wealth may have contributed to strong vested interests in the status quo by hindering acceptance of the reforms needed to prompt more inclusive growth and faster poverty reduction. Differences in the quality of human resources, and in the incomes individuals and households can earn, drive a

large degree of the inequality of outcomes in the Philippines. For instance, the effects of such inequality show themselves from the earliest days of life. Poorer children are at a disadvantage from the start. They have limited access to good-quality health care and early childhood education, which undermines their ability to succeed later in life. Twenty percent of children under age five are malnourished and stunted (see Figure 4 for stunting by wealth quintile). Many poor people, including in the younger generations, have limited education. In the labor force, for the poor households, only 31 percent have completed secondary education and 2 percent have benefitted from tertiary education, compared to 59 percent and 15 percent of the non-poor, respectively. Workers with tertiary education earn nearly 4.5 times the wage of workers with no education, and workers that have a high school education earn 1.8 times the wage of those with no education. The low level of education and skills means that the poor cannot compete for productive jobs in the formal sectors, such as high-end services or business-process outsourcing positions, which require tertiary education. This constrains the total supply of skilled labor, which dampens the business environment for investors, perpetuating the cycle of inequality of opportunity and inequality of outcomes.

The adverse impacts of natural disasters and conflict:

Frequent natural disasters, including deadly typhoons that disproportionately strike poor regions of the Philippines, and persistent conflicts in parts of Mindanao continually push vulnerable groups into poverty and jeopardize long-term human capital development. Natural disasters have caused an estimated US\$23 billion in losses and damages in the Philippines since 1990, making it one of the most disaster-prone countries in the world. Moreover, on average, more than a million Filipinos are impoverished each year by natural disasters. Protracted conflict, particularly in parts of Mindanao, has exacted a great toll on the local economy and trapped people in poverty. Lack of security and justice and economic stresses have intertwined to lock people in poverty. A review of the experiences of other

Figure 4. Rates of stunting for children under 5, by wealth quintile (2013)



Source: Food Nutrition and Research Institute (2015).

Note: The overall stunting rate is broken down into severe stunting (more than 3 standard deviations below the median) and moderate stunting (between 2 and 3 standard deviations below the median).

countries points to the extremely high human and economic costs of disasters and conflict, with the poor suffering disproportionately. The same level of asset loss affects poor and marginalized people far more than their wealthier neighbors because their livelihoods depend on fewer assets and their consumption is closer to subsistence levels. Repeated and increasingly frequent natural disasters are undermining poverty reduction in the Philippines. Where they occur, conflicts not only destroy physical assets, they also erode human capital through loss of life, injury, illness, denial of education and health services, and increased malnutrition. This reduces the earning ability and capabilities of the affected populations and traps people in poverty. The confluence of weak governance, conflict, and migration significantly affects the level and quality of initial human capital endowments of conflict-affected regions in Mindanao.

Closer examination of the profile of the poor clarifies the importance of each of these three factors, as well as how the drivers of poverty work together to keep the poor from achieving a better life.

Who are the poor? Poor Filipinos live in relatively large households, with disproportionately low educational attainment, headed by individuals who are self-employed or work in agriculture as laborers or smallholder producers. Households that rely on agriculture as the main source of income, such as farmers and fishermen, are the poorest. In 2015, over 31 percent of the households with six or more members were poor, which was 10 percentage points higher than the national average. Over 25 percent of households headed by someone under 50 years of age were poor in 2015, compared with less than 16 percent of those with heads over 50. Female-headed households, which receive a large share of income from remittances, are less likely to be poor. Like most countries, the Philippines shows a strong negative correlation between poverty risk and the level of education of the household head. High school education stands out as the key threshold—graduation reduces the risk of poverty to two-thirds of the average.

Where do they live? There are large regional disparities across the Philippines—the regional GDP per capita in the National Capital Region is five times that of Mindanao—and in some lagging regions growth has slowed recently. Three-quarters

of the poor live in rural areas, and the rural poverty rate is three times that of urban areas. Poverty rates are lowest in the National Capital Region (only 4 percent), and highest in the areas with risks due to disasters and conflicts; two-fifths of the poor live in Mindanao; over 50 percent of the population in the Autonomous Region in Muslim Mindanao are poor. In addition, people living in informal settlements in urban areas suffer high levels of multidimensional poverty; almost 40 percent of these informal settlers are in Manila.

What are their main income sources? Poor households rely disproportionately on income from agriculture (including subsistence farming, agricultural wages, and agriculture-related self-employment), domestic remittances, and government transfers. While the share of income provided by agriculture has declined over time, dependence on wages and salaries from agricultural activities remains high—about two-thirds of enterprises are agriculture-related. Domestic remittances and government transfers represent 7 percent and 6 percent of total household income in poor households respectively, compared with 3 percent and 1 percent in non-poor households.

The drivers of poverty are mutually reinforcing. The poor start life at a disadvantage. They are hobbled by malnutrition, limited resources, poor access to quality health care, and low education and skills, among other deficits. They earn low incomes,



save little for the future, and are vulnerable to shocks. Lacking the requisite skills to take advantage of job opportunities, the poor are generally limited to agricultural work or other low-paid jobs in rural areas; in urban settings, many end up in slums.

The vicious cycle of unequitable investment in human capital and lack of well-paying job opportunities traps the poor in poverty generation after generation. The high concentration of income and wealth limit equality of opportunity and impede equitable public service delivery, which is necessary for inclusive growth. In addition, frequent and severe natural disasters, as well as persistent conflicts in some parts of Mindanao, have limited the attractiveness of long-term (foreign and domestic) investment, particularly investment in infrastructure, which has aggravated regional disparities. The lack of land reforms and unclear property rights have similarly discouraged investment in agriculture. With a low rate of investment (20 percent of GDP), the economy is largely driven by consumption, which limits the potential for more rapid structural transformation and improvement in productivity. The low increase in real wages, while it might be attractive in the short run, is likely to negatively affect the competitiveness of the economy in the long run with the brightest leaving the country for better job opportunities. The high rate of emigration from the Philippines, with 6 million Filipino migrants abroad, might indicate that this is already happening.

Suggested Measures to Support Faster Poverty Reduction

The Philippines has solid macroeconomic fundamentals and its growth prospects remain positive. With a healthy current account, strong international reserves, significant fiscal space, and low and stable inflation, the economy is in a strong

position to apply multiple policy tools to seize opportunities, mitigate regional and global shocks, and provide the basis for productive job creation and poverty reduction.

Making the pattern of growth more inclusive and providing more well-paying jobs will help people to achieve higher and more stable incomes.

The government can help end the vicious cycles of unequal opportunity and outcomes that trap people in poverty, as well as set in place mutually reinforcing positive cycles that will create a growing middle class, well-integrated with other groups. It can help improve service delivery for all and increase non-farm wage employment opportunities through increased demand for manufacturing goods and services. Finally, more progressive and better-administered taxes can help finance needed investments in both physical and human capital.

Strong economic growth will be the basis for productive job creation and poverty reduction. In the long run, productivity is the basis of everything. Addressing the key factors noted earlier—more well-paying jobs; improved productivity in all sectors, especially in agriculture; ensuring people acquire the skills they need; investing in health and nutrition; focusing poverty reduction efforts in Mindanao; and managing risks and protecting the vulnerable—can help achieve faster poverty reduction.

Facilitate the creation of more well-paying jobs.

A significant share of the poor have jobs with very low wages or are mired in involuntary underemployment. In the past decade, employment grew at roughly the same rate as the working-age population, but a large portion of those jobs are poorly paid. Nearly 95 percent of the population in the labor force is employed. However, some 20 percent is underemployed, and to the extreme, some households earn as little as 50–100 pesos (US\$1–2) a day. Many urban poor are trapped in low-wage, low-productivity jobs in the informal service sector. Support for the creation of more well-paying jobs,

particularly semi-skilled jobs, for the majority of today's labor force who have less than a high school education, can help reduce poverty and address inequality through higher wage incomes.

- **Improve the business environment to attract more investment.** Underinvestment in human and physical capital has been a major constraint to improved labor productivity and has resulted in the low quality and high informality of jobs. Compared with most high-performing countries in East Asia, the Philippines investment-to-GDP ratio is low. Investment in productive capacity, in particular, has lagged in the manufacturing sector. To attract more private investment, the business environment needs to be improved, particularly through addressing institutional constraints, strengthening competition in key sectors, securing property rights, providing risk management solutions and simplifying business regulations. To attract foreign and domestic investment, the government can play a key role by improving infrastructure and basic services delivery, as well as by providing targeted support to the self-employed or those working in small and medium-size enterprises, where large numbers of the poor are employed.
- **Upgrade value chains to support strong and sustainable growth.** Improve labor productivity and moving up the value chain are a proven basis for creating more well-paying jobs. The Philippines has gone from being an agricultural economy to a (low-end) service economy, without developing a manufacturing sector. Labor productivity growth mainly stems from within-sector productivity growth. This is contrary to the development patterns of many neighboring countries in East Asia, where booming manufacturing sectors created large numbers of labor-intensive jobs, absorbing the surplus labor from agriculture. It is an ongoing debate whether manufacturing can still deliver the same productivity gains and well-paid employment opportunities for the unskilled workers as in the past. The Philippines needs

to find its specific niches in the services sector and in regional and global value chains to capitalize on its growing services sector and enhance the productivity gains from structural transformation.

- **Strengthen backward and forward linkages to build on the comparative advantages of skilled labor and create jobs for the unskilled.** Linkages between the services sector and manufacturing and agriculture are critical to upgrading the domestic value. This would include proficiency in English and good information technology skills, as well as taking advantages of the time zone. In doing so, the Philippines could leverage strong performance in business-process outsourcing to expand other service-based sectors, such as tourism. This, in turn, could contribute to successful transformation by creating more productive employment opportunities, including opportunities with skill requirements compatible with those of individuals from poor households.

Improve productivity in all sectors, especially agriculture.

The Philippines is a middle-income country whose economy is becoming less dependent on agriculture for output and employment. Nevertheless, agriculture remains important for poverty reduction and employment as well as sustainable and equitable growth. Compared with many countries in the region, the sector performs below its potential for contributing to growth, employment, and poverty reduction. Improvements in productivity, diversification, and value-addition are crucial, as well as progress in making agriculture more resilient to natural disasters and climate change.

- **Enhance agricultural productivity.** Over the past decade, productivity growth in the Philippines has lagged that of the best performers in East Asia, including China, Indonesia, and Vietnam. Agricultural



productivity has been low and stagnant for 30 years. Farmers and fisherman remain among the poorest in the rural areas. Reasons for the persistent low productivity of agriculture include high input costs; small land sizes; insufficient ability to manage rainfall variability and other natural hazards; lack of access to finance, applied research, and extension services; and limited connectivity and links to market outlets. As evidenced in other middle-income countries in the region, structural transformation will attract workers out of agriculture as the manufacturing and service sectors expand. However, agriculture continues to be a large employer and absorption of surplus labor by manufacturing and service sectors is not undertaken at a fast pace, at least in the short run. Improving income from agriculture will help address persistent poverty issues and contribute to employment opportunities in rural areas.

- **Support agribusiness and broader value chain development.** Within the structural transformation agenda, the role of agriculture is evolving, although slowly. The share of agribusiness in the GDP of several countries in the region undergoing structural transformation is higher than that of agriculture (agribusiness accounts for 33

percent of GDP in Indonesia, 43 percent in Thailand, and 15 percent in the Philippines, which is higher than the agriculture share in GDP). As agriculture's share of GDP continues to fall and incomes and urbanization rise, the composition of agricultural output changes as part of agricultural diversification. To reduce poverty in rural areas, support will be needed for agricultural development and diversification through support for the development of agribusiness, bringing in various input providers and agro-processors, distributors, and retailers for value chain development.

Ensure that Filipinos acquire the skills they need for the 21st century economy.

In recent years, the Philippines has made admirable strides in education. Critical advances have been the creation of both universal kindergarten and senior high school education, with the first cohort of grade 12 students graduating in 2018. Key challenges now include making sure students in school are learning, reducing high dropout rates for the poor, and developing socioemotional skills.

- **Boost learning in basic education overall and increase secondary enrollment and completion among the poor.** To close gaps in education, two principle challenges

remain. The first is that despite a high level of commitment by teachers and improved learning environment, learning outcomes are weak. The Philippines' experience is similar to that of many countries around the world that have boosted school completion rates but still face quality challenges, which globally constitutes what the Bank's 2018 World Development Report (World Bank 2017j) terms a "learning crisis." The second challenge is that secondary enrollment is low and dropout rate remain high among the poor beyond primary level. The returns to education are high at college levels, but many among the poor are not completing high school. Improving education quality principally requires equipping teachers with the tools they need via effective training and materials. Improvements of quality will help address the second challenge, by attracting more students to stay in school. Other critical priorities are continuing efforts to improve budget execution and the effective use of public education funds. Strengthening collection of learning outcome data including participation to the international standardized students' assessments and use of the data to determine the direction of the ongoing basic education reform will be important.

- **Develop socioemotional skills in addition to traditional technical skills and cognitive skills.** A recent World Bank report shows the growing importance of socioemotional skills for competitiveness in the global economy. A higher level of socioemotional skills is associated with greater probability of being employed and with higher daily earning. Therefore, worker competitiveness increasingly requires not only traditional technical and cognitive skills but also improved socioemotional skills. Moreover, such skills are associated with the greatest wage differential among workers with low educational levels. As a substitute for, instead of complement to, traditional technical and cognitive skills, socioemotional skills can offer

a route to higher earnings for workers with limited formal education. To take advantage of this insight it will be necessary to develop teacher preparedness and training to actively foster these skills in all education and training, including early childhood education, K–12 education, and tertiary education, as well as regular and vocational training.

Invest in health and nutrition.

Although the Philippines has implemented universal health coverage, it still has weakness in de facto health access and quality, rates of child malnutrition remain high, and the country has faced obstacles in implementing its reproductive health policies. A series of efforts in these areas are needed to boost human capital and make possible a demographic dividend.

- **Boost health care quality and equity.** The Philippines has made great progress in expanding access to health care through universal coverage via the Philippines Health Insurance Program (PhilHealth). However, the scope and quality of care available in public facilities remains limited and uneven. To break the cycle of poor health and poor income, public investment in health care needs to be improved to ensure easy access to basic good-quality care and alleviate the burdens of out-of-pocket payment. The top policy priority is to expand the essential health benefits package available to the poor. The next priority is to develop a national strategy for quality of health care improvement. A third is to ensure that all of those who qualify for PhilHealth coverage are enrolled and are aware that they are insured. Limited and uneven access and quality of health care contribute to the general health challenges of the poor as well as to weaknesses in reproductive health and nutrition as well as general health challenges of the poor.
- **Reduce child stunting.** One in three children in the Philippines under age 5 is stunted—

the principal marker of malnutrition—and stunting rates have been stagnant over a decade, even as other socioeconomic indicators have seen progress. Malnutrition in the womb and during the first two years of life inhibits brain development, resulting in lower levels of schooling, reduced cognitive function, and lower earnings later in life. The returns from investments to reduce malnutrition are extraordinarily high in the Philippines: each peso invested results in a return of 44 pesos. The Philippine Plan of Action for Nutrition provides a solid framework for tackling the challenge. The critical needs are to focus health interventions on the “first 1000 days” of a child’s life from conception through the first two years of life, combined with multi-sector efforts involving education, social protection, agriculture, and water and sanitation.

- **Fully implement the Responsible Parenthood and Reproductive Health (RPRH) Law.** Filipino women in the poorest quintile have more than five children on average and the fertility rate has been steady in the past decades. One in ten girls age 15-19 is either pregnant or already a mother. An increase in adolescent pregnancy means higher maternal and infant mortality, as well as more school dropouts. At a macro level, the slow decline of fertility has robbed the Philippines the opportunity for a “demographic dividend” of the sort that has been important in economic development across East Asia. The total wanted fertility rate for the Philippines is 2.2 births per woman, 27 percent lower than the actual fertility rate of 3.0 in 2013 (recent DHS 2017 shows that actual fertility rate has declined to 2.7 births per woman). One important measure is to help households meet their need for contraception. A recent study based on a natural experiment in Manila shows that reducing access to contraception increases family size and decreases education attainment. Following through on the commitments of the 2012 RPRH Law will

allow informed parents to make their own choices and achieve their desired family size. A recent study estimated the economic gains from a full implementation of the RPRH law and suggested helping couples achieve the desired number of children can potentially have substantial economic benefits in terms of more rapid economic growth. Critical aspects of the law that need to be fully implemented include expanding access to a wide range of modern contraceptives, especially for the poor, as well as Comprehensive Sexuality Education to reduce teen pregnancies.

Focus poverty reduction efforts on Mindanao.

As the region is home to two-fifths of the poor, little progress on poverty is possible without inclusive growth in Mindanao. Five decades of violence has depressed growth and poverty reduction. Conflict has affected over 60 percent of Mindanao’s population. Over 50 percent of the population in ARMM lives below the poverty line. Economic progress and poverty reduction in the Philippines will depend on the success of development in Mindanao. This will mean drawing on the region’s untapped potential, linking lagging areas to growth centers, and strengthening peace-building efforts in conflict-affected areas to break the cycles of insecurity.

- **Increase public investment in Mindanao.** Increasing public investment in Mindanao to boost development in areas where the bulk of the poor live would provide the basis for generating opportunities. As three-fifths of Mindanao’s production and employment is driven by agricultural value chains, investment is particularly needed to support the agriculture sector and improve connectivity. Complementary efforts are needed to build human capital in Mindanao and strengthen local governance.

- **Support efforts to resolve conflict and bring peace to Mindanao.** Breaking the cycle of insecurity and reducing the risk of its recurrence requires a virtuous spiral of restoring confidence in collective action between groups who have been in conflict and transforming institutions to provide a sustained level of security, justice, and jobs. This can be accomplished in three steps: 1) Creating productive employment opportunities, particularly for youth, who might otherwise be tempted to join extremists' armed groups or organized crime; 2) Delivering government programs and basic services more effectively, which could anchor stabilization; and 3) Increasing programs to build human capital by expanding coverage of basic services, including health, education, and skills development. Ultimately, enduring peace and development will hinge on the success of a political solution that addresses the causes of violence—injustice, weak governance, land dispossession, discrimination, and sociocultural marginalization.

Manage risks and protect the vulnerable.

Poor people are more vulnerable to negative shocks. They are more exposed to the risks through lack of resources, more sensitive to the impacts due to an inability to cope with them, and lack the capacity needed to adapt to potential risks and therefore suffer repeated setbacks. Children from poor families are particularly vulnerable not getting the needed education and health care. Providing

targeted support to the poor and vulnerable to mitigate shocks, build up human capital, and provide an effective safety net for those times when it is needed, is crucial. Managing risks and protecting the vulnerable not only protects public investments in individuals and private assets, it also supports broader growth and capital accumulation through reducing repeated losses of physical and human capital, and through increasing the acceptable thresholds of natural risks for investors.

- **Improve natural disaster risk management systems.** Poor people are more exposed to negative shocks—they are more likely to live in flood-prone areas in fragile housing, with a large share of their meager income spent on staples—and are more vulnerable given their lack of capacity for prevention and limited ability to cope with and recover from shocks. Effective disaster prevention measures can yield high returns, especially when they are correctly designed and implemented as part of a larger program of poverty reduction. Early warning systems, improved access to personal banking, insurance policies, and social assistance (such as cash transfers and public works programs) can improve the capacity of individuals to cope with and recover from shocks and avoid well-being losses three-to-five times greater than their costs. Development of post-disaster support systems, including social safety nets, remittances, insurance, and other financial instruments can mitigate the well-being losses of the poorest Filipinos from natural disasters, even without directly reducing asset losses.





- **Strengthen social protection systems.**

The Pantawid Pamilya conditional cash transfer program has helped to provide poor households with much-needed financial augmentation to meet basic needs, and it has provided an incentive to keep poor households' children in school and healthy. It is important to continue the cash assistance to poor cover all poor households with children, and increase the amount of transfers to sustain and enhance the gains, and to keep the convergence of government efforts—in raising demand-side pressures and supply-side responses—to maintain the program's effectiveness in achieving outcomes. To ensure that the

program keeps up with the evolving needs of poor beneficiaries, several improvements need to be considered. First, targeting efficiency can be improved through regular updating of the roster of potential conditional cash transfer beneficiaries in the Listahanan and by using the most updated database. Second, to strengthen the impact on building human capital, it is important to move beyond access to measure and monitor quality (that is, monitor learning as well as school attendance, and measure improved nutrition as well as growth).



CHAPTER ONE

Poverty Levels and Trends

Economic Growth and Challenges Over the Past Decade
Poverty and Inequality | Poverty in the Philippines: An International Comparison
Forces That Have Reduced Poverty
Reasons Why Poverty Has Not Declined as Fast as in Other East Asian Countries

Poverty Levels and Trends

- **Economic growth** has been strong in the Philippines over the past decade. The national poverty rate declined 5 percentage points from 26.6 percent in 2006 to 21.6 percent in 2015.
- **The pace of poverty reduction was slower than many countries in the East Asia Region.** In 2015, 22 million Filipinos, or more than one-fifth of the population, remained poor. Only a small share of the population has made it into the middle class and more than 10 percent remains vulnerable to falling back into poverty. Inequality of income and wealth remained high.
- **Recent improvement in inclusiveness and poverty reduction** are reasons for hope. The poverty rate declined an average of 1.2 percentage points per year over 2012–2015, compared with 0.6 percentage points over 2006–2015.
- **Key drivers** of poverty reduction include an increase in wage income, movement of workers out of primary production agriculture, government transfers, and remittances from domestic and foreign sources. Wages and salaries, entrepreneurial income, and transfers account for four-fifths of total household income.
- **The reasons** poverty did not decline as quickly as in it did in many East Asian countries include: the slower pace and less pro-poor pattern of growth, high inequality of income and wealth, and disasters and conflict.

The Philippine government formulated a strategic focus on reducing poverty and improving the living conditions of its people. To guide this work, the government launched *AmBisyon 2040* (Philippines,

NEDA 2016),¹ a long-term vision to enable the government to bring down poverty and improve the lives of the poorest segments of the population, and the *Philippine Development Plan 2017–2022*

1 This represents the collective long-term vision and aspirations of the Filipino people for themselves and for the country for the next 25 years. The Vision states that “the Philippines will be a prosperous, predominantly middle-class society where no one is poor; our peoples will live long and healthy lives, be smart and innovative, and will live in a high-trust society.”

(Philippines, NEDA 2017), the blueprint for the country’s development. As a step forward in this effort, the government aims to reduce poverty to 13–15 percent by 2022, which will require annual poverty reduction of over 1 percentage point.

The main objective of this Poverty Assessment is to inform the efforts through a more in-depth understanding of the varying impacts of growth on the living conditions of the people in the Philippines. The report draws from a variety of sources—including the Family Income and Expenditure Survey and the Labor Force Survey—to examine what has worked and what has not worked in efforts to reduce poverty, as well as the current challenges. It identifies key elements that affected the inclusiveness of growth and provides policy suggestions to address the main constraints to accelerated poverty reduction and greater shared prosperity.

This chapter presents the achievements in economic growth and poverty reduction over the past decade and challenges ahead. It lays out the regional trends in output and employment, examines the poverty levels and trends, and provides a comparison with other East Asian countries.

Economic Growth and Challenges Over the Past Decade

The Philippines has experienced good economic growth over the past decade (Figure 1.1A). Over 2006–2015, the annual growth in GDP averaged 5.4 percent, compared with 4.1 percent average growth recorded in 1996–2005 and 3.4 percent in 1986–1995. Underlying this strong performance was a stable macroeconomic environment, achieved after a series of economic reforms that included liberalization programs between 1986 and 1997 to improve competitiveness, financial and corporate regulatory reforms following the 1997 Asian Financial Crisis, and fiscal consolidation efforts in 2004–2007 (World Bank 2013b).

The Philippine economy increasingly has been characterized by higher international reserves, healthy current account surpluses, stable inflation, and declining debt ratios. While the GDP growth is impressive, the growth of GDP per capita, which is more relevant for changes in welfare, was slower, and related to the country’s rapid population growth. The growth rate in per capita terms was

Figure 1.1. Economic growth in the Philippines

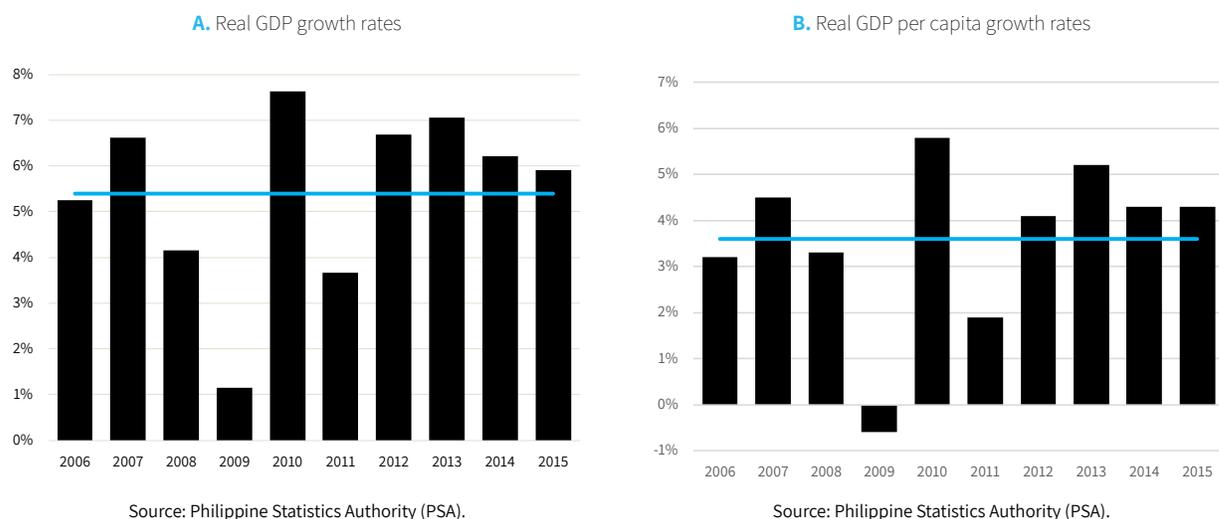


Table 1.1. Top ten countries in East Asia by GDP growth and GDP per capita growth, 2006–2015

| Country | Average annual GDP growth (2006–2015) | Rank | Country | Average annual GDP growth per capita (2006–2015) | Rank |
|--------------------|---------------------------------------|------|--------------------|--|------|
| China | 9.60 | 1 | China | 9.05 | 1 |
| Myanmar | 9.21 | 2 | Myanmar | 8.40 | 2 |
| Mongolia | 8.43 | 3 | Mongolia | 6.73 | 3 |
| Lao PDR | 7.95 | 4 | Lao PDR | 6.14 | 4 |
| Timor | 7.02 | 5 | Cambodia | 5.30 | 5 |
| Papua | 6.97 | 6 | Vietnam | 4.99 | 6 |
| Cambodia | 6.96 | 7 | Papua New Guinea | 4.57 | 7 |
| Vietnam | 6.12 | 8 | Timor | 4.49 | 8 |
| Indonesia | 5.63 | 9 | Indonesia | 4.27 | 9 |
| Philippines | 5.43 | 10 | Philippines | 3.80 | 10 |

Source: World Bank World Development Indicators (WDI)

slower than the aggregate, again due to population growth (Figure 1.1B). The country's per capita income grew at an average of 3.6 percent annually, while the population grew at 1.8 percent over 2006–2015. Since 2006, per capita income has continuously expanded except for the temporary contraction in 2009, due to the impact of the global financial crisis. It has since rebounded, topping more than 4.0 percent growth in recent years.

Nonetheless, compared with the East Asia and Pacific Region, the gap between the Philippines and the high-performing countries is significant. In 2015, its GDP per capita of US\$2,635, in constant 2010 prices, was only 48 percent of the average for developing countries in the Region (US\$5,507). Compared with other countries in East Asia, in the past decade, the average rates of GDP growth and GDP growth per capita for the Philippines both rank tenth in the group, some 4–5 percentage points lower than the stellar performers such as China (Table 1.1). In the

recent years, however, growth performance in the Philippines has been strong. In 2016, its growth rate was among the highest in the East Asia Region.

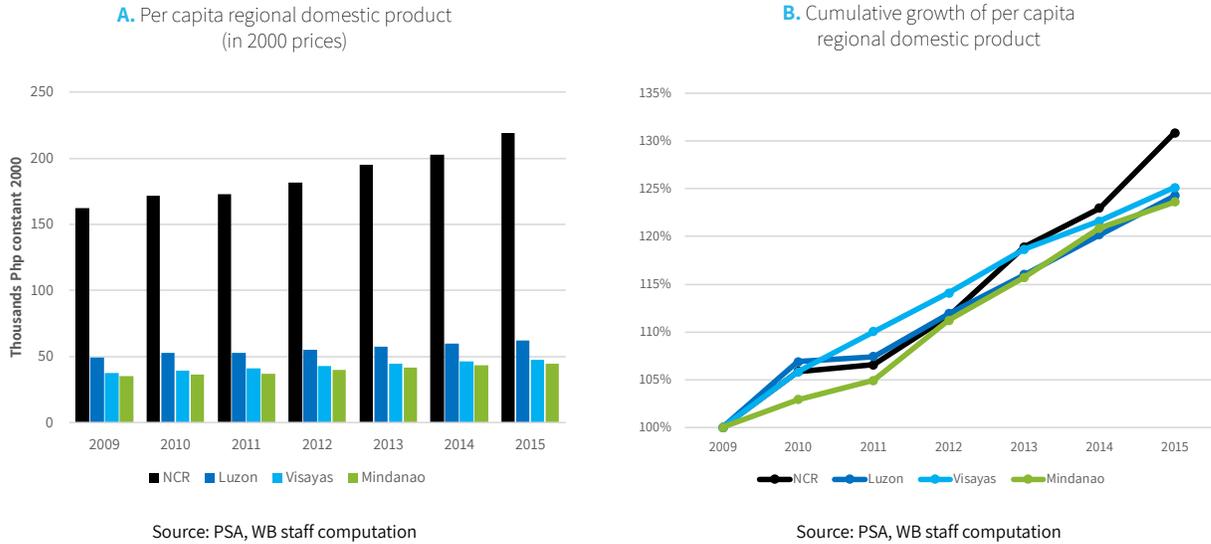
Performance is not uniform in the country, however, and there are wide disparities among regions (Map 1.1).² Of the four regional groups, the NCR and Luzon vastly surpassed Visayas and Mindanao in output production. The disparity between the regional groups is further accentuated, because the NCR has been growing faster than the rest of the country (Figure 1.2). The NCR is the wealthiest region in the Philippines, with its real per capita income 16 times the Autonomous Region in Muslim Mindanao (ARMM).

Data from household surveys show that household income per capita growth was even lower for the Philippines than for other countries' in the Region.³ On average, incomes were growing at only 1.6 percent each year over 2006–2015. The bottom

2 GDP per capita varies significantly within a region. In some cases, regional statistics may be driven by a few locations within the region.

3 GDP per capita and household income per capita come from two different sources. Much like the case in other countries, these two numbers are not expected to be the same. The gap between the two can come from multiple factors, including the distribution of the fruits of growth between capital and labor, as well as the possible missing coverage (often the very top end) of household surveys.

Figure 1.2. Regional growth disparities

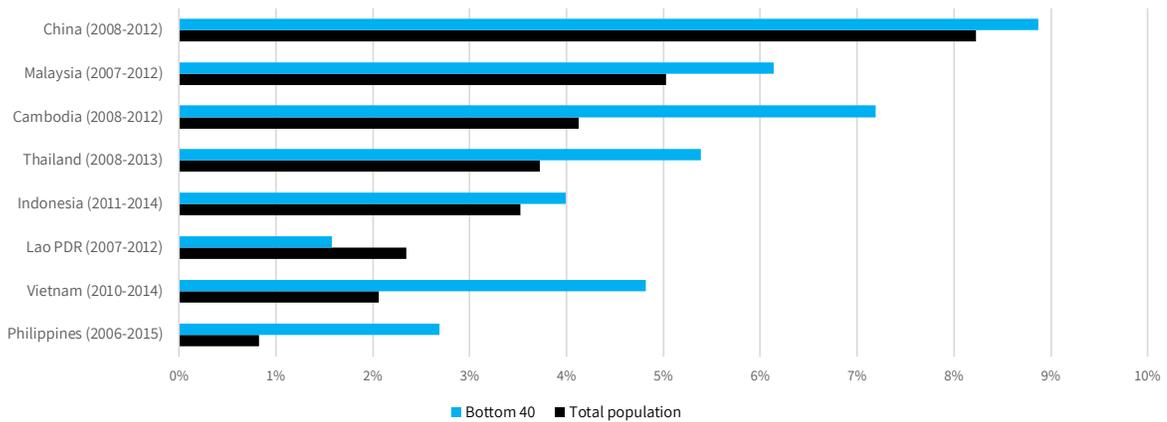


40 percent grew faster by over 1 percentage point compared with the overall population (2.9 percent versus 1.6 percent). Household consumption per capita growth was even lower, at 0.8 percent for the total population but 2.6 percent for the bottom 40 percent⁴ (Figure 1.3)

The overall trends mask differences both in and between sub-periods (Figure 1.4). Household per capita income growth in 2006–2009 and 2012–2015

was strong and inclusive, but growth in 2009–2012 was weak, which may be attributed to the global crisis, and benefited the rich more than the poor. Between 2006 and 2009, mean income grew by 5 percent and all percentiles experienced positive income growth; however, income growth was especially high (11 percent) for the bottom 20 percent of the distribution. Similarly, between 2012 and 2015, all percentiles experienced positive income growth, with an overall increase in mean income of 6

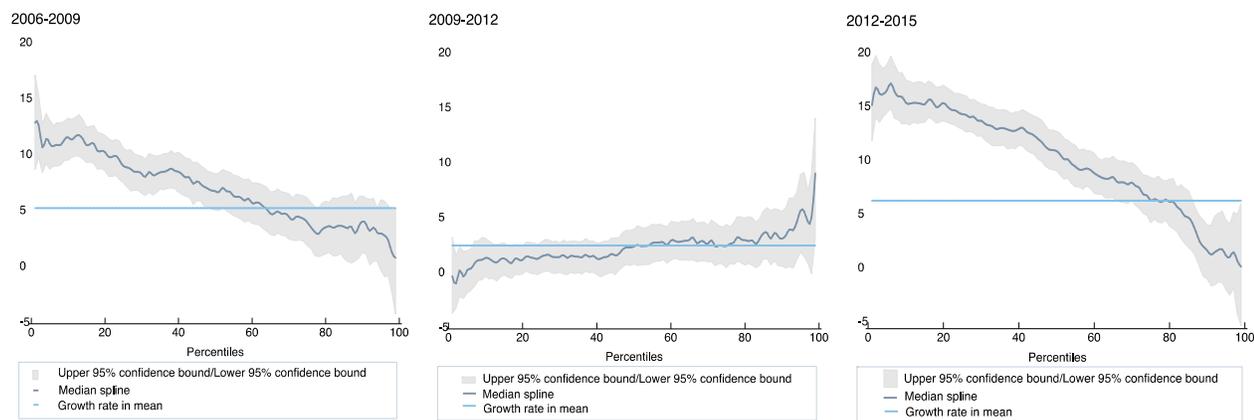
Figure 1.3. Annual growth of household consumption per capita



Source: WDI and staff estimates

4 Most of the household surveys in the region use consumption as the welfare measure, while the Philippines and Malaysia use income. The estimates for the rest of the countries in the East Asia Region almost mirror the GDP per capita growth. Note, however, that the bottom 40 percent of the population was growing much faster in Cambodia, Vietnam, and the Philippines

Figure 1.4. Varying trends in per capita household income growth across the population



Source: Staff estimates using various rounds of FIES

Note: A growth incidence curve (GIC) shows how the growth rate for a given quantile varies across quantiles ranked by income. A downward sloping GIC thus indicates that growth contributes to equalizing the distribution of income, and vice-versa for an upward sloping curve.

percent, while the bottom 20 percent grew at about 16 percent. The most recent period had the broadest impact on household income, as almost 80 percent of households experienced income growth of more than 6 percent. In comparison, only the very rich (top 5 percent) households reached this level in the 2009–2012 period, which suggests the vulnerability of the economy to external shocks.

The strong economic growth contributed to steady decline in the unemployment rate from 8.0 percent in 2006 to 6.9 percent in 2015. During this 10-year period, the labor force participation rate essentially did not change, with an average of 64.0 percent of the working-age population employed or looking for jobs. The unemployment rate for men has consistently remained higher than the rate for women, with men constituting nearly two-thirds of the unemployed. Among age cohorts, young workers between the ages 15 and 24 suffered the highest unemployment, making up roughly half of the unemployed each year. As the age profile rose, the smaller the share of the total unemployed became. Despite the decline in unemployment, underemployment—those who worked but were willing and available to work “more adequately”—has remained persistently high, in the range of 18–20 percent, since 2006.

More than half of the available jobs were in the services sector, followed by agriculture and industry. In the recent decades, there was a gradual shift in jobs away from agriculture and into the services sector, a structural change that started in the 1970s. The share of agriculture in total employment decreased from about 36 percent in 2006 to 28 percent in 2015, while the share of the services sector rose from about 50 percent to 56 percent. However, unlike the experience in many other countries in the East Asia Region, where a large share of the unskilled labor moved from agriculture to manufacturing jobs, with consequent higher productivity and higher wages, in the Philippines the share of total employment in manufacturing remained around 15 percent. The bulk of unskilled employment moved to the informal services subsector, which is typically low-wage and low-skill in nature. According to the Philippines Development Report (World Bank 2013b), more than three-quarters of the services sector is composed of low-pay or low-skill jobs, such as petty retail trade and public transportation. The low productivity in the services sector does not provide the basis for large wage increases, which limits the scope of poverty reduction and shared prosperity.

Labor productivity in agriculture remained depressed over the past decade, and its growth was the slowest of the three sectors. Between 2006 and 2015, agriculture productivity grew annually at 2.0 percent, compared with the services sector at 2.4 percent and the industry sector at 2.9 percent, thereby widening the productivity gap between agriculture and the other two sectors. Labor productivity in the industry sector is roughly twice that in the services sector and more than six times that in the agriculture sector.

Poverty and Inequality

The incidence of poverty has declined over the past decade. Using the national poverty line, the poverty rate dropped 5 percentage points. Using the international poverty line of US\$1.90 a day or the middle-income class poverty line of US\$3.20-a-day (in 2011 purchasing power parity), the poverty rate dropped 7.9 percentage points and 11.4 percentage points respectively (Box 1.1).⁵ (Unless otherwise noted, this report uses the national poverty line to measure the poverty rate and trends.)

The reduction in poverty was minimal in the earlier years of the decade, and a more rapid pace was observed only recently (Figure 1.5A). In 2015, over one-fifth of the population, or 22 million Filipinos, continued to live below the national poverty line (Map 1.2); of this number, roughly 8.2 million people (8.1 percent of the population, as estimated from the Family Income and Expenditure Survey [FIES]), did not have sufficient income to meet their basic food requirements, according to the national food poverty line.⁶ Using the international poverty line of US\$1.90 a day and the poverty line for lower-middle-income-class countries (LMIC) of US\$3.20 a day, both in 2011 purchasing power parity (PPP),

Box 1.1. Poverty estimates using national and international poverty lines

National official poverty estimates in the Philippines are produced by the Philippine Statistics Authority (PSA). These are derived using income welfare aggregates evaluated against per capita poverty lines that are set broadly following the cost-of-basic-needs (CBN) approach. Using a national reference food bundle based on expert opinion of what constitutes a nutritionally adequate bundle, province-specific bundles are set separately for urban and rural areas and reflect locally consumed commodities. These locally priced bundles that constitute food poverty lines are scaled up by a constant food to non-food ratio to calculate total poverty lines. There are 163 poverty lines set that correspond to urban and rural areas of the 81 provinces in the country, and these were benchmarked to 2009, when the current methodology was developed.

The methodologies of constructing the national poverty line and the international extreme poverty line differ in several aspects. Unlike the international poverty line, which is fixed and updated by the consumer price index (CPI), the national poverty lines are updated by re-estimating the food poverty lines at current prices. The fixed food to non-food ratio used to derive the poverty lines assumes that the non-food price inflation is the same as food price inflation. This explains the relatively slower reduction in poverty using national poverty lines compared with the international poverty lines.

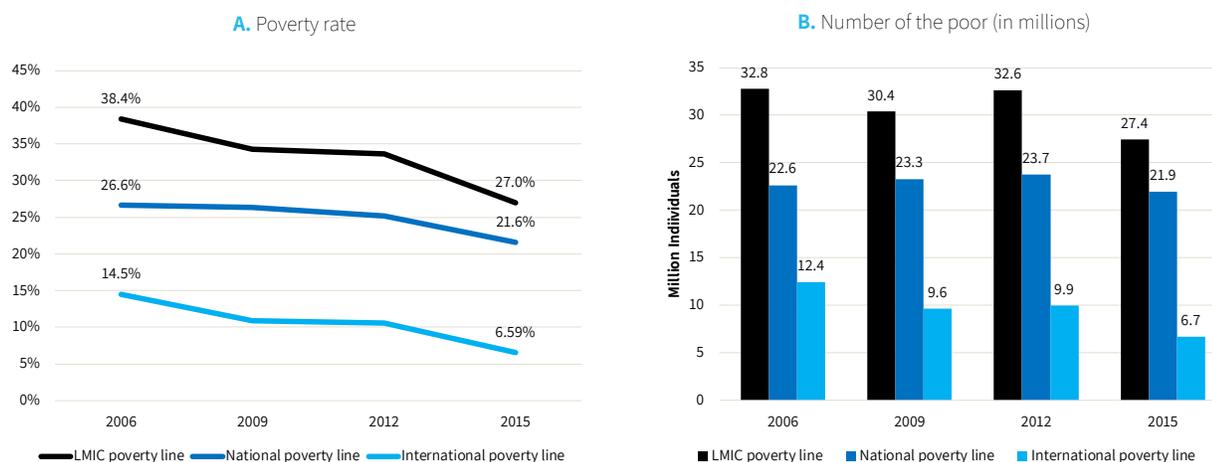
the same trend of decline in the poverty rate is observed as with the national poverty line, though the magnitude and speed differ in the sub-periods 2006–2009 and 2012–2015, when a faster rate of decline is seen. The number of poor has declined more rapidly in the recent years (Figure 1.5B)

The Poverty rate declined over time—although slowly in some periods—against various

⁵ Research shows that there has been a significant decline in multidimensional poverty over the past decade, although the magnitude of the decline in, and especially the dimensional contributions to, aggregate multidimensional poverty are quite sensitive to the alternatives considered. See Datt (2017).

⁶ Poverty rates vary significantly within a region. In some cases, regional statistics may be driven by a few locations within the region.

Figure 1.5. Poverty rate and number of the poor



Source: Staff estimates using various rounds of FIES

Source: Staff estimates using various rounds of FIES

combinations of poverty lines (Table 1.2). In 2006, a total of 3.8 percent of the population (3.2 million individuals) were severely deprived (below 50 percent of the national poverty line); this declined to 2.3 percent (2.4 million individuals) in 2015. The relatively well-off (those living at least at twice the level of the national poverty line), hovered around 40 percent in 2006–2012 but increased slightly, to 41.6 percent, in 2015. However, in many cases, these “well-off” households are far from economically

secure and are at risk of falling back into poverty with a negative shock.

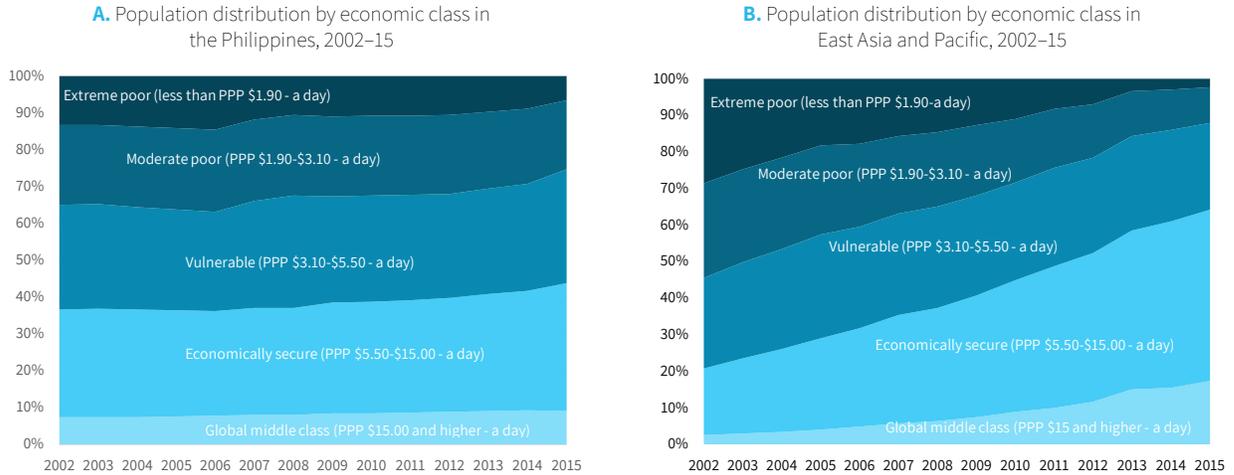
Compared with many East Asian countries, the Philippines stands out for showing little dynamism at both the low end (elimination of poverty) and the high end (rise in economic security and global middle class) (Figure 1.6A and B). In 2015, measured by global standards, while only 6.6 percent of the population was extremely poor (living below

Table 1.2. Multiples of poverty line by national standards

| Welfare level | 2006 | | 2009 | | 2012 | | 2015 | |
|---|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|
| | Population (million) | Share (%) |
| Severe deprivation (< 0.5 poverty line) | 3.2 | 3.8 | 3.0 | 3.4 | 3.1 | 3.3 | 2.4 | 2.3 |
| Quite poor (0.5 – 0.75 poverty line) | 9.1 | 10.7 | 8.8 | 10.0 | 9.0 | 9.5 | 8.0 | 7.9 |
| Poor (0.75 – 1 poverty line) | 10.3 | 12.1 | 11.5 | 12.9 | 11.7 | 12.4 | 11.6 | 11.4 |
| Vulnerable to poverty (1 – 1.25 poverty line) | 9.6 | 11.2 | 10.0 | 11.3 | 10.6 | 11.3 | 12.14 | 11.9 |
| Moderately well-off (1.25 – 2 poverty line) | 18.9 | 22.2 | 20.8 | 23.5 | 21.6 | 23.0 | 25.3 | 24.9 |
| Well-off (> 2 poverty line) | 34.1 | 40.0 | 34.6 | 39.0 | 38.1 | 40.5 | 42.3 | 41.6 |
| Overall | 85.3 | 100.0 | 88.7 | 100.0 | 94.1 | 100.0 | 101.6 | 100.0 |

Source: Staff estimates using national poverty line and various rounds of FIES

Figure 1.6. Prosperity improvement in the Philippines compared with the East Asia and Pacific Region



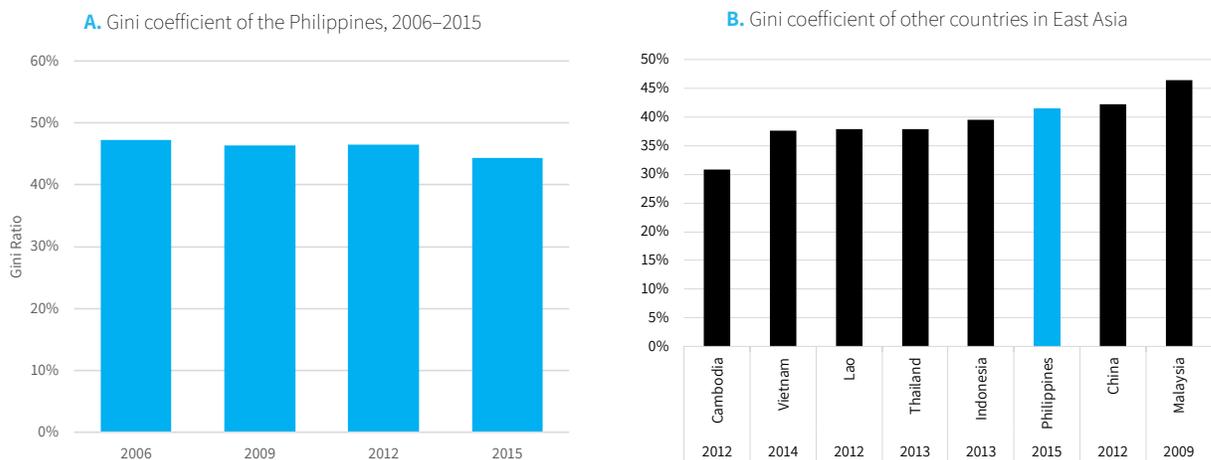
Source: EAP Team for Statistical Development

US\$1.90 a day, 2011 purchasing power parity), 18.7 percent was moderately poor (between US\$1.90 and US\$3.20 a day), and 30.8 percent of the population was economically vulnerable (between US\$3.20 and US\$5.50 a day). Only 34.7 percent was economically secure (between US\$5.50 and US\$15 a day) and only 9.2 percent was in the global middle class (above US\$15 a day). Many East Asian countries, particularly China and Vietnam, have fared better, making significant improvements in the extent of economic vulnerability. In developing East Asia and the Pacific, the economically secure and middle class comprised nearly two-thirds of the region's population in 2015, up from its share of just over a

fifth of the population in 2002. In the Philippines, the increase was very modest, a rise from 37 percent to 44 percent. There is still a long way to go for the Philippines to achieve its goal of becoming a middle-class society.

Inequality in the Philippines is among the highest in the world. Inequality of income declined slightly during the periods 2006–09 and 2012–15, while it slightly increased during 2009–2012, after the global financial crisis. While the income Gini coefficient declined from 47 percent in 2006 to 44 percent in 2015, it is still higher than in the majority of developing countries in East Asia (Figure 1.7). The inequality

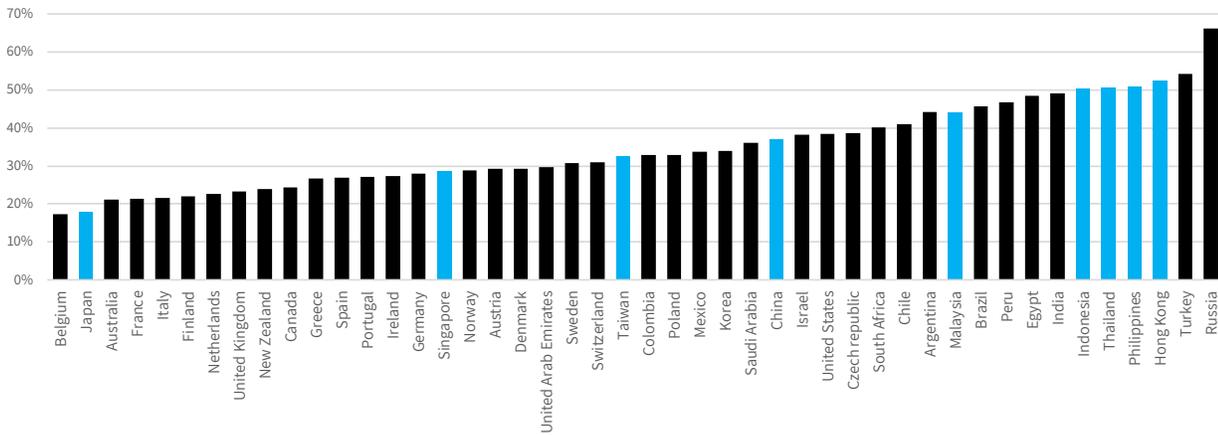
Figure 1.7. Inequality of income



Source: Staff estimates using various rounds of FIES, measured by household income per capita.

Source: PovCalnet and staff estimates, measured by household consumption per capita.

Figure 1.8. International comparison: share of wealth for the richest one percent



Source: Credit Suisse Wealth Report, countries in East Asia marked in blue

level in the Philippines is much higher if measured by wealth. According to the Credit Suisse Wealth Report, the top 1 percent of the population owned more than half of the nation's wealth (Figure 1.8).

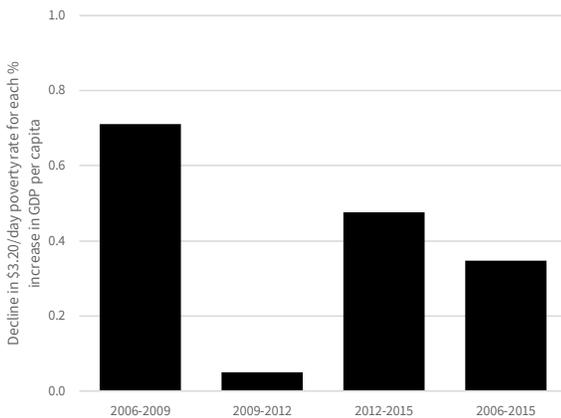
The role of growth and distribution in poverty reduction varied in the different sub-periods. During 2006–2009 and 2012–2015, growth was strong and inclusive. At the macro level, each percentage point increase in GDP per capita resulted in 0.7 and 0.5 percentage points of decline in poverty rate, respectively, against the US\$3.20 per day lower-

middle-income-class poverty line. At the household level, the improvement in income distribution accounted for some 40 percent and 50 percent of the poverty reduction (Figure 1.9). During 2009–2012, poverty reduction was minimal, not only due to the weak economic growth, but also the worsened distribution of income.

Families may perceive themselves as poor or moving in and out of poverty differently from what the national poverty data show.⁷ The Social Weather Stations (SWS), a private social research institution

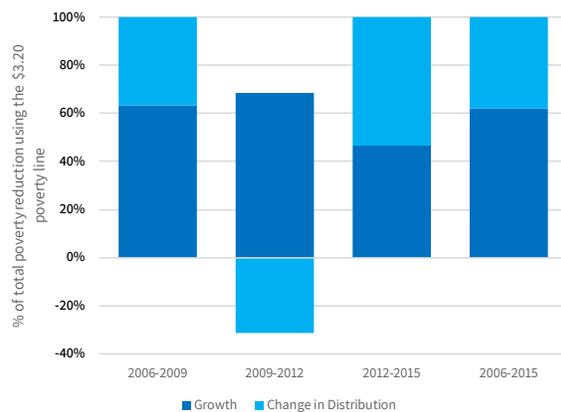
Figure 1.9. Growth and Poverty

A. Responsiveness of poverty reduction to GDP per capita growth



Source: Staff estimates using the lower-middle-income-class poverty rate and various rounds of FIES

B. Contributions of household income growth and change in distribution to poverty reduction

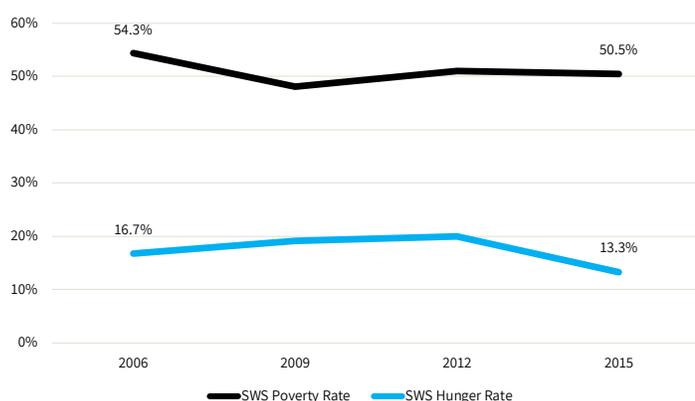


Source: Staff estimates using the lower-middle-income-class poverty rate and various rounds of FIES

Note: Residual component is minimal and are excluded in the figure.

7 Objective poverty and subjective poverty follow different methodologies of measurement. They are not meant to be comparable.

Figure 1.10. Self-rated poverty and hunger in households



Source: Social Weather Stations

in the Philippines, provides self-rated indicators of the status of poverty and hunger using regular surveys⁸ (Figure 1.10). Self-rated poverty estimates are consistently and significantly higher than the national poverty estimates. Studies have shown that while objective welfare measures affect perceptions, underlying psychological factors inherent to the respondent, such as demographic, socioeconomic or health status, are also important (Pradhan and Ravallion 2000, Ravallion and Lokshin 2002, Angelilo 2014).

Poverty in the Philippines: An International Comparison

From an international perspective, the rate of poverty reduction in the Philippines has been slower than many East Asian countries over the past decade (Table 1.3). The Philippines remains among the countries with the highest poverty based on both the US\$1.90 a day and US\$3.20 a day poverty lines in the region. The pace of extreme poverty reduction in the Philippines averaged 0.9 percentage points per year between 2006 and 2015, less than half the 1.4 points per year decline in the developing world overall. The rate of reduction is also much slower compared with other developing countries in East Asia using the lower-middle-income class line of US\$3.20 a day (Figure 1.11). The persistently high level of inequality of income limited the responsiveness of poverty reduction to growth in the Philippines. While this has improved in the most recent years, it still lags behind countries such as Vietnam and Indonesia.

Table 1.3. Poverty rates in selected East Asia countries

| Country | US\$1.90/day | | US\$3.20/day | |
|--------------------------------|--------------|------------|--------------|-------------|
| | Start year | End year | Start year | End year |
| China (2005–2012) | 18.8 | 1.9 | 43.5 | 20.2 |
| Indonesia (2006–2015) | 27.5 | 7.5 | 65.6 | 34.0 |
| Lao PDR (2007–2012) | 18.3 | 15.3 | 65.2 | 57.8 |
| Philippines (2006–2015) | 14.5 | 6.6 | 38.4 | 27.0 |
| Thailand (2006–2013) | 0.7 | 0.0 | 6.2 | 1.1 |
| Vietnam (2006–2014) | 19.5 | 2.8 | 51.3 | 11.6 |

Source: Staff estimates based on international poverty lines

⁸ Calculated by SWS based on self-reported hunger in households. The survey questions on the family's experience of hunger are directed to the household head. The survey question on hunger is as follows: "In the last 3 months, did it happen even once that your family experienced hunger and not have anything to eat?" Those who experienced hunger were further asked: "Only once, a few times, often or always?" SWS classify hunger into moderate and severe. Moderate hunger refers to those who experienced hunger only once or a few times in the last 3 months while Severe hunger refer to those who experienced hunger often or always. The hunger rate is made up of the moderate and severe hunger rates. Reference: SWS: Statistics for Advocacy (www.sws.org.ph)

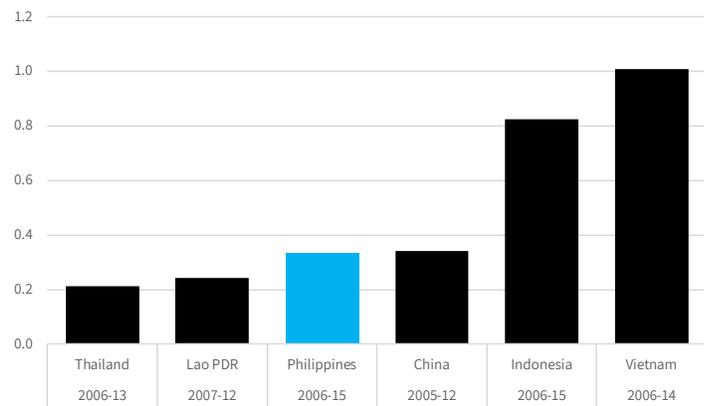


The population of the Philippines is very young (Figure 1.12). In 2010, half the population was younger than 23.4 years. This is higher than the median age of 21.3 years recorded in 2000, but significantly lower than in many other countries in East Asia, such as China and Thailand. Four in 10 of the household population are of school age (5 to 24 years old). Regionally, ARMM had the highest percentage of school-age population at 49.1 percent of the household population; the NCR had the lowest at 39.2 percent. For every 100 people in the working-age population, there were about 61 dependents (54 young dependents and 7 old dependents). The demographic structure presents a clear opportunity for the country to reap the economic benefits of demographic dividends in the coming years if it can manage to improve the skills of the labor force and create productive jobs. At the same time, it raises significant challenges for more inclusive growth should the high fertility rate persist for women in the poorer households.

Forces That Have Reduced Poverty

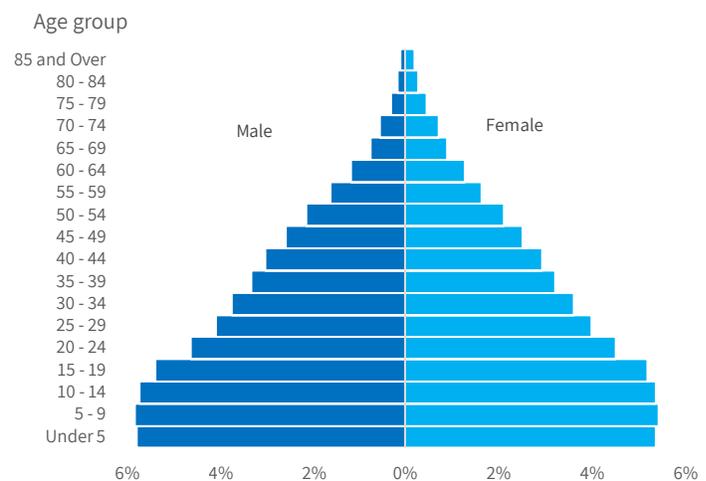
Empirical analysis shows that the observed decline in poverty over 2006–2015 is attributable mainly to an increase in wage income and movement of employment out of agriculture,⁹ government transfers, and remittances from domestic and foreign sources (Figure 1.13).

Figure 1.11. Decline of US\$3.20/day poverty rate for each 1 percent increase in GDP per capita



Source: Staff estimates based on lower-middle-income-class poverty lines

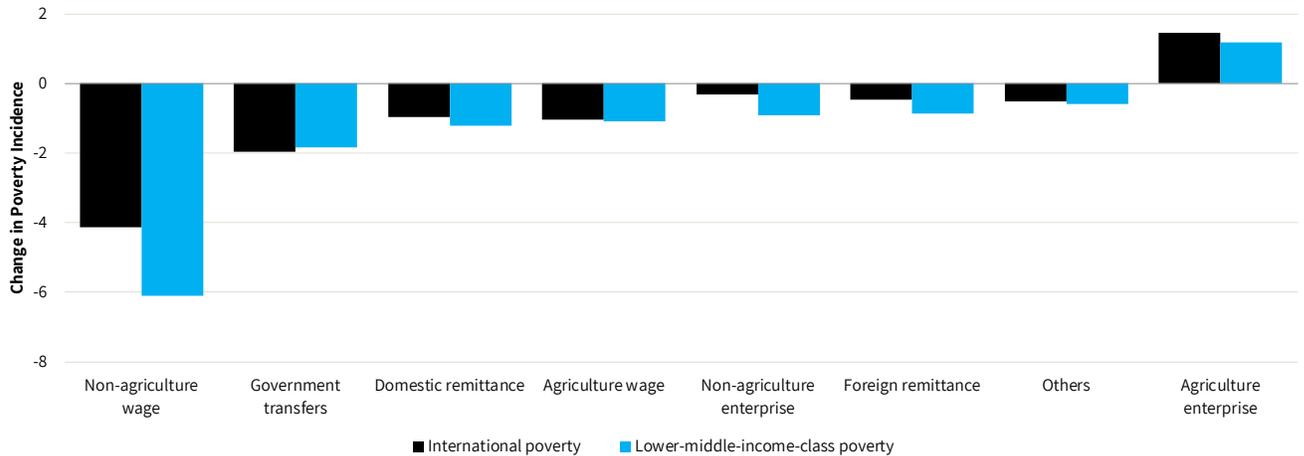
Figure 1.12. Age-sex pyramid of household population, 2010
Total population = 92.1 million



Source: Philippine Statistics Authority

9 Employment in agriculture focused on workers who were engaged only in activities related to primary production.

Figure 1.13. Contribution of income sources to poverty reduction, 2006–2015

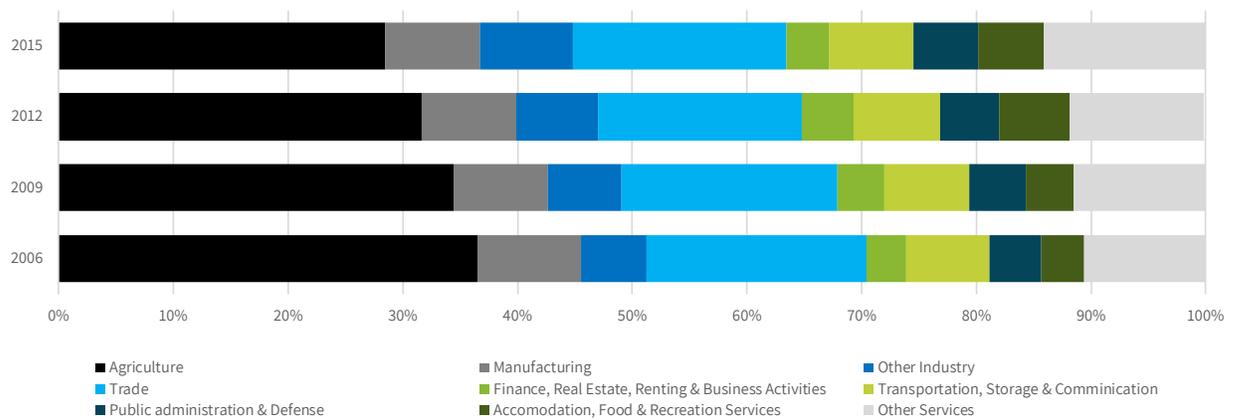


Source: Estimates using international poverty lines and various rounds of FIES. Extreme poverty is defined as household income per capita below US\$1.9 a day (2011 PPP); and lower middle-income-class poverty is defined as household income per capita below US\$3.2 a day.

Increase in wage income and movement out of primary production agriculture. The increase in wage income and movement of workers out of agriculture contributed about two-thirds of the poverty decline.¹⁰ The major contribution is from the increase of non-agricultural wages, which accounted for over 50 percent of the reduction in poverty (out of a total of two-thirds for non-agricultural and agricultural income combined). The Philippines has been experiencing a decline in the share of agriculture to GDP over time (22 percent in 1990, 14

percent in 2000, 12 percent in 2010, and 10 percent in 2016), and a decline in the share of agriculture in employment. While most of the poor continued to work in agriculture, this share of the population gradually declined by nearly 1 percentage point each year, from 36 percent in 2006 to 28 percent in 2015 (Figure 1.14). Even lower-end industry and services jobs paid more than agriculture jobs (Figure 1.15). Agricultural wage incomes account for about one-eighth of the reduction of extreme poverty for 2006–2015. The gradual movement of employment

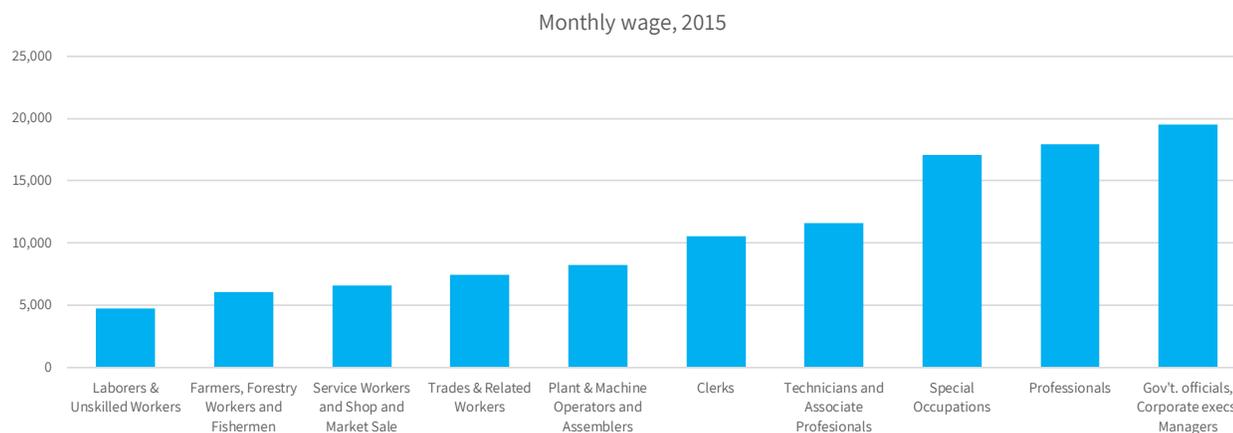
Figure 1.14. Millions shifted out of agriculture



Source: LFS 2006 and 2015

¹⁰ In this report, the January rounds of the Labor Force Survey data are used which are merged with the corresponding Family Income and Expenditure Survey data in relevant analysis.

Figure 1.15. Greater earnings in manufacturing and services than in agriculture



Source: LFS 2015, vertical axis is 2015 Philippine pesos

out of agriculture, as well as the accompanying increase in agricultural wages and for unskilled labor in recent years, are among the key factors of poverty reduction.

Government transfers. Transfers from government social programs contributed about 25 percent of the reduction in poverty. The national conditional cash transfer program, *Pantawid Pamilya*, expanded rapidly during this period, and became the primary government social assistance program for the poor. It extends cash grants to 77 percent of poor households and contributes both to reducing poverty and to building human capital. It is estimated that the program reduced the national poverty rate by up to 1.5 percentage points (lifting 1.5 million people out of poverty) in 2015. This is consistent with the global experience with the impact of social safety net transfers on poverty. The World Bank report, *The State of Social Safety Nets 2018*, estimates that such transfers reduce the incidence of international poverty by 36 percent. Moreover, even if the transfers do not lift beneficiaries above the international poverty line, they reduce the poverty gap by about 45 percent. *Pantawid Pamilya* also helped influence behavior change. It improved school enrollment of older children, encouraged early childhood education, and increased the health-seeking behaviors of beneficiaries.

Remittances. Remittances from domestic and foreign sources contributed about 12 and 6 percent of the poverty reduction, respectively. Two-thirds of Filipinos, or 15 million households, receive domestic and foreign remittances. Foreign remittances are much higher in value. Both transfer types have similar impacts on reducing the poverty rate (by up to 4 percentage points), and domestic transfers have higher impact on the poverty gap. Domestic remittances are more prevalent among the poor, while foreign remittances, though greater in value, are more common among the non-poor. Domestic remittances reduce inequality, while foreign remittances increase it.

The contribution to poverty reduction of entrepreneurial incomes was a negative 15 percent. Entrepreneurial activities are varied: for poor rural households, a high share of the entrepreneurial incomes come from activities related to primary production in agriculture; for the urban poor, from self-employed, lower-end services; while for the non-poor, a high share might come from business. Its overall negative contribution to poverty reduction may reflect the diverse nature of the work, including the declining importance of entrepreneurial agriculture activities for the poor.

Reasons Why Poverty Has Not Declined as Fast as in Other East Asian Countries

Poverty declined only marginally, particularly over 2006–2012, despite good economic growth. The main reasons poverty in the Philippines did not decline as fast as in other East Asia and Pacific Region countries include: lower pace and less pro-poor pattern of growth, high inequality of income and wealth, and disasters and conflict.

Lower pace of growth in household income per capita. The annual growth rate of GDP in the Philippines of around 5.5 percent in the past decade translates into a 3.6 percent growth in per capita terms for the high population growth rate of 1.7 percent. Data from household surveys show that growth in household income per capita was also lower for the Philippines than for other countries in the Region. On average, these incomes were growing at only 1.6 percent each year during 2006–2015. This lagged the stellar-performing countries in the East Asia and Pacific Region. While the bottom 40 percent experienced growth of 2.9 percent each year, the low growth rate of household income limited the pace of poverty reduction. Despite the good economic growth, only a small share of the population has made it to the middle class, and more than 10 percent of Filipinos remained vulnerable to falling into poverty.

Less pro-poor pattern of economic growth with limited gains from structural transformation for labor. Agriculture, which employs most poor people in the Philippines, has experienced minimal growth in the past decade, contributing to GDP growth by an average of 0.2 percentage points (compared to 1.9 percentage points for industry and 3.4 percentage points for services) over the period of 2006–15. The efficiency of productive resource allocation has been low and gains from structural transformation

for labor have been limited. Compared with other East Asian countries, including China, Indonesia, Malaysia, and Thailand, the reallocation of agricultural labor toward sectors with higher or faster productivity, such as manufacturing, was more limited.¹¹ For wage earners, real wage gains were limited in the past decade (only 4 percent increase in 2006–2015). A large share of the unskilled agricultural workers ended up in the low-end services sector, which limited the productivity gains from the structural transformation.

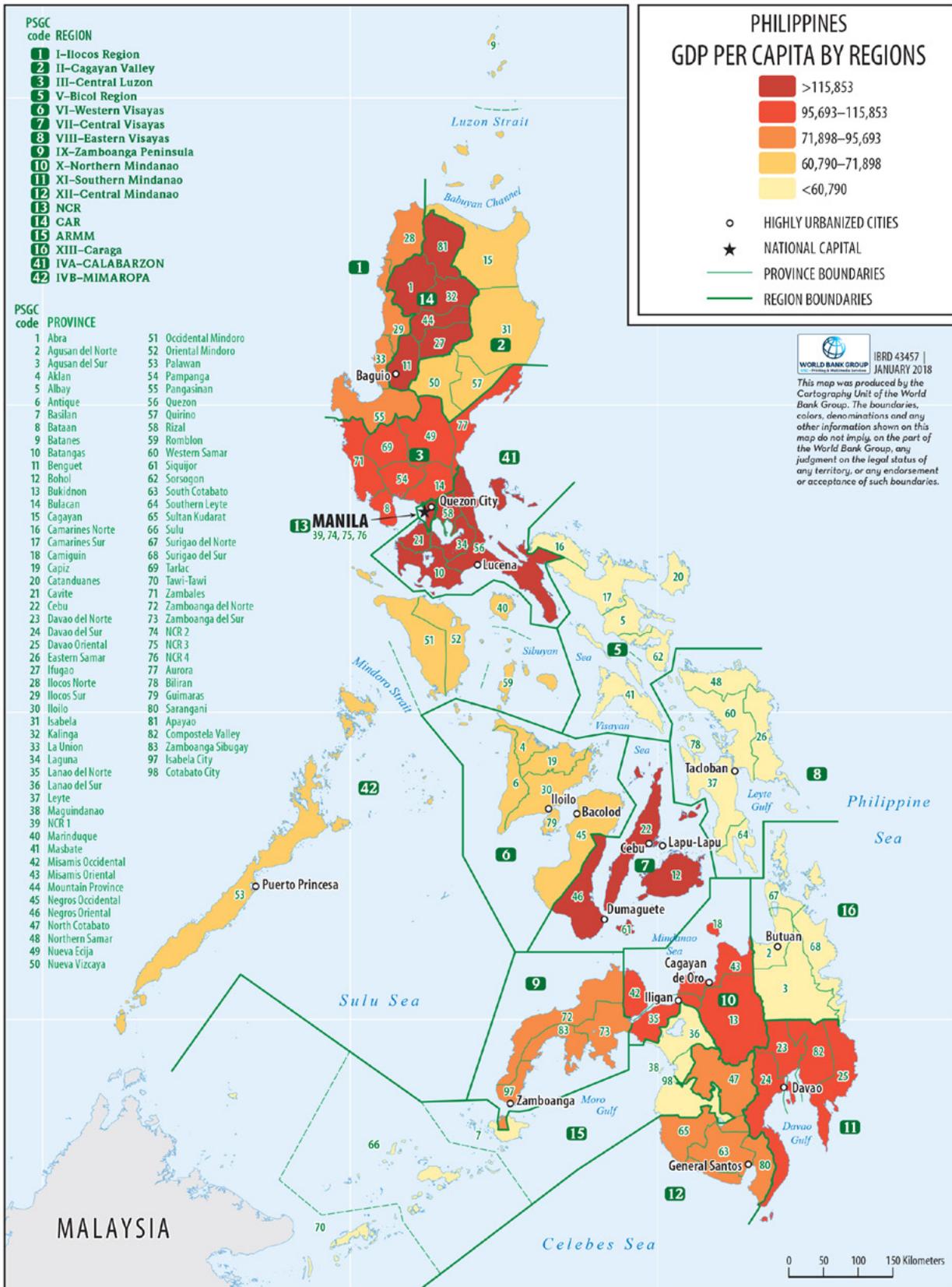
High inequality of income and wealth. The Philippines has one of the highest levels of inequality in the world. Measured by household income, the Gini coefficient hovers around 44–47 percent, with declining trends only in recent years, but it is higher than many neighboring countries in the Region. The top 1 percent owned more than half of the nation's wealth, according to the Credit Suisse Wealth Report. Differences in the quality of human capital (from an unfair start in life), as well as difference in the incomes individuals and households can earn, drive a large degree of the inequality of outcomes in the Philippines. The high concentration of wealth could result in strong vested interests in maintaining the status quo, which could hinder the reforms needed to facilitate more inclusive growth and poverty reduction.

Natural disasters and conflicts. Regions affected by natural disasters and conflicts have lower living standards and higher poverty rates than more placid areas.¹² Changes in weather patterns are shifting the path of seasonal natural disasters, and El Niño may intensify, with particularly harsh consequences for the poor. The poorest regions of the country, where agriculture accounts for a disproportionate share of income and the capacity to manage risk is particularly weak, face increased vulnerability to shocks. Protracted conflict, particularly in parts of Mindanao, has exacted a great toll on the local economy and trapped people in poverty.

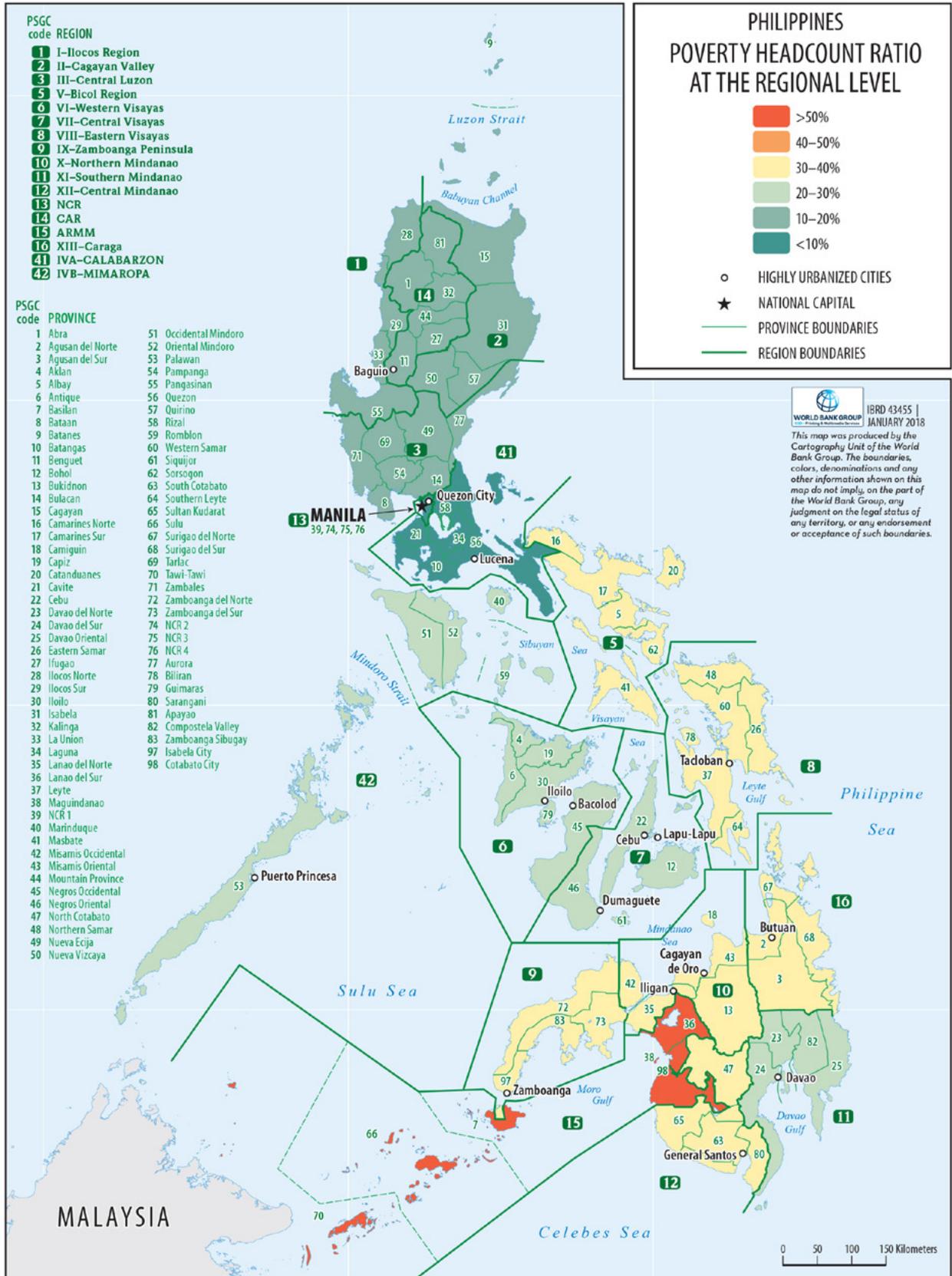
11 See Annex A for more details on the comparison of intersectoral allocation and productivity growth between the Philippines and other East Asian countries.

12 See more details in World Bank (2017d).

Map 1.1. GDP per capita by region



Map 1.2. Poverty rate by region





CHAPTER TWO

Profile of Poverty and Inequality in Living Conditions

Characteristics of the Poor | Locations of the Poor
Non-Income Dimensions of Poverty | Sources of Household Income
Vulnerability to Disaster | Costs of Conflict

Profile of Poverty and Inequality in Living Conditions

- **Poor households** are large, have low educational attainment, rely on self-employment or agricultural work. Farmers, fisherfolk, and other agricultural workers are often the poorest.
- **Three-quarters of the poor live in rural areas**, and the rural poverty rate is three times that of urban areas. Poverty rates are highest in the high disaster-risk and conflict-affected areas. Two-fifths of the poor live in Mindanao, and over 50 percent of the population in ARMM are poor.
- **Education access** in the Philippines are slightly better than those of other countries at its level of income, but health services access and health outcomes lag.
- **Access to basic services** and ownership of communication and mobility assets significantly improved over the past decade, but the poor still fared worse than the non-poor. Informal settlements are the most visible manifestation of multidimensional poverty in urban areas.
- **Natural disasters** impose extremely high economic and human costs in the Philippines, and the poor are the most exposed to risk and the least able to cope. The same level of asset loss affects poor and marginalized people far more than wealthier people because their livelihoods depend on fewer assets, and their consumption is closer to subsistence levels.
- **Protracted conflict**, particularly in parts of Mindanao, has exacted a great toll on the local economy and trapped people in poverty.

This chapter examines the characteristics of the poor in the Philippines and their distribution by rural and urban areas and among regions of the country, taking into consideration factors that contribute to poverty, such as disaster risks and conflicts. It

also takes stock of the non-income dimensions of poverty, including access to basic services and ownership of durable assets, among the poor and non-poor.

Characteristics of the Poor

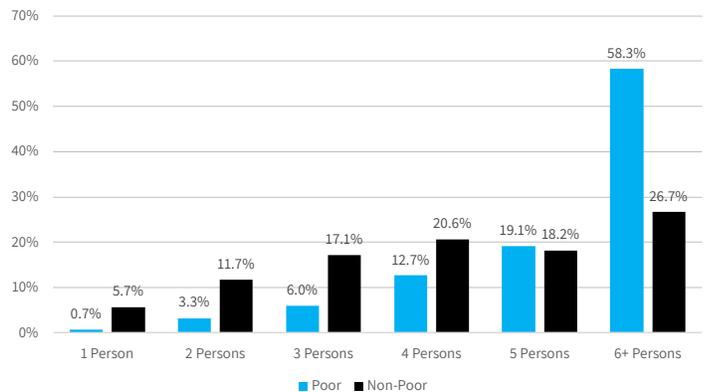
Households of larger size, with higher dependency ratios, headed by younger males, with lower education, and employed in agriculture are more likely to be poor. (Poverty throughout this chapter is based on the national poverty line.)

Poverty rate increases monotonically with household size. Households with six members or more are much more likely to be poor. In 2015, over 31 percent of the households with six members or more were poor, 10 percentage points higher than the national average. Among all the poor households, 58 percent have six members or more; in contrast, only 27 percent of all the non-poor households have six or more members (Figure 2.1).

Women in poor households have more children. With a total fertility rate of 3 (recent DHS 2017 showed that TFR has declined to 2.7 births per woman), the Philippines has high population growth—1.7 percent per year—more than double the average for the East Asia Region (0.7 percent), and nearly 50 percent higher than the world average (1.2 percent). While total fertility has been declining, it remained high for the poor. A typical Filipina woman in the poorest 20 percent of the population has 5.2 children in her lifetime, compared with 1.7 children for those in the richest 20 percent (Figure 2.2). According to the Department of Health, over 80 percent of married women wanted to either space their births or limit childbearing (PSA 2013).

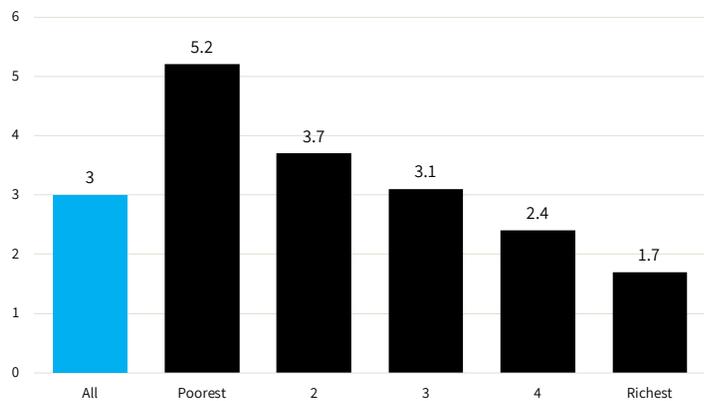
Households with a high child dependency ratio are more likely to be poor (Figure 2.3 and Figure 2.4). In 2015, nearly 40 percent of the households with three or more young children (below 17 years of age) are poor, compared with the national poverty

Figure 2.1. Household size, poor versus non-poor (percentage of households)



Source: Staff estimates using FIES 2015

Figure 2.2. Total fertility rate by income quintile

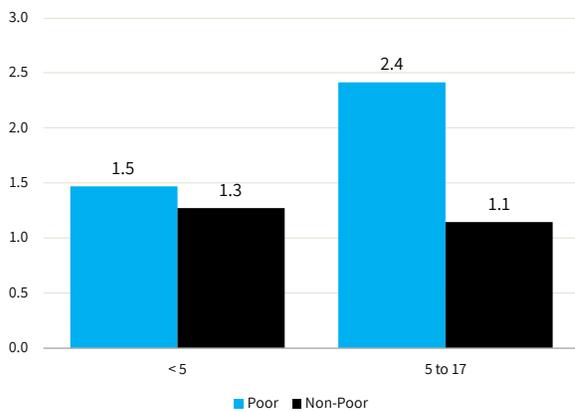


Source: PSA 2013

rate of 21.6 percent. Poor households have, on average, nearly four children (1.5 young children under 5 years old, and 2.4 young school-age children between 5 and 17 years old), while non-poor households have only 2.4 children (1.3 young children under 5 years old, and 1.1 young school-age children between 5 and 17 years old). There is a strong association between household size and child dependency ratio.

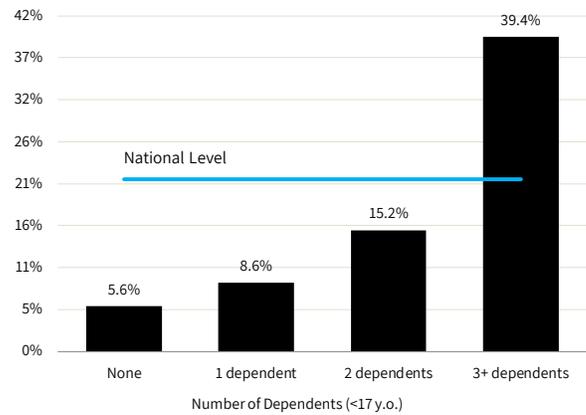


Figure 2.3. Average number of children, poor versus non-poor



Source: Staff estimates using FIES 2015

Figure 2.4. Poverty rate by number of children

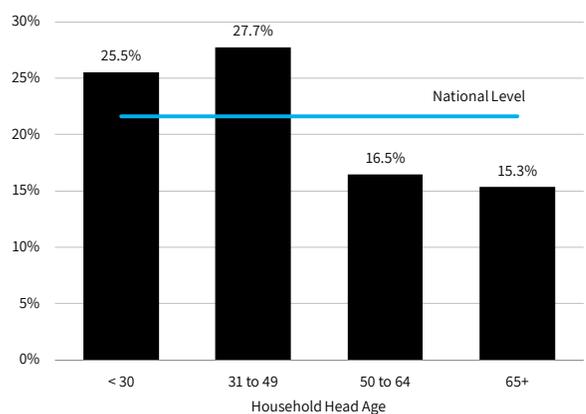


Source: Staff estimates using FIES 2015

The risk of poverty declines with the age of household heads (Figure 2.5). Poor households are more likely to be headed by younger adults. Nearly 60 percent of poor households have heads younger than 50 years old, compared with only 44 percent of non-poor households. Over 25 percent of households with heads aged below 50 were poor in 2015, compared fewer than 16 percent of households with heads over 50.

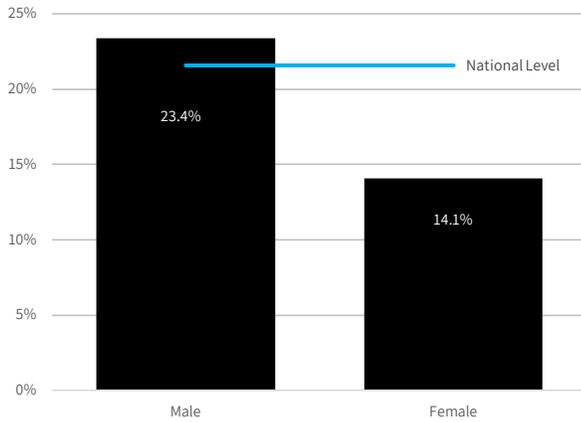
Female-headed households are less likely to be poor (Figure 2.6). The low poverty risks of female-headed households are related to the high share

Figure 2.5. Poverty rate by age of household head



Source: Staff estimates using FIES 2015

Figure 2.6. Poverty rate by gender of household head

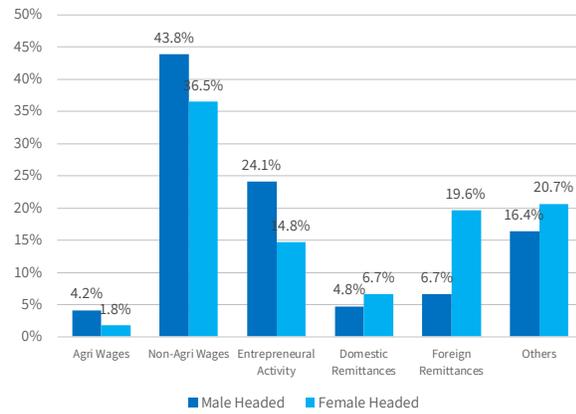


Source: Staff estimates using FIES 2015

of foreign remittances in their household income (Figure 2.7). Female-headed households have a lower share of income from agriculture wages, non-agricultural wages, and entrepreneurial activity, but a significantly higher share from remittances, both domestic and foreign. On average, foreign remittances represent 20 percent of total household income, and domestic remittances represent 7 percent for female-headed households. This compares with 7 percent and 5 percent for male-headed households.

Like most countries, the Philippines shows a strong negative correlation between poverty risk and the level of education of the household head (Figure 2.8

Figure 2.7. Income sources by gender of household head

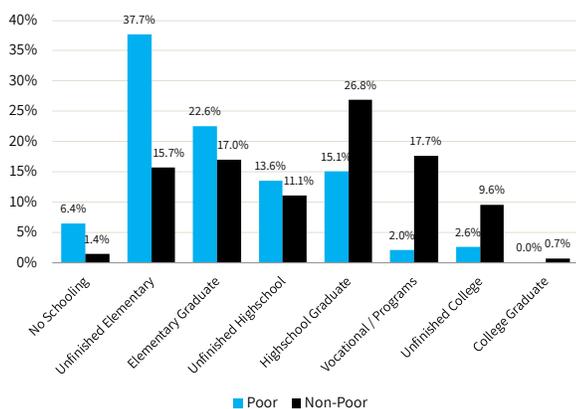


Source: Staff estimates based on FIES 2015

Note: In percent

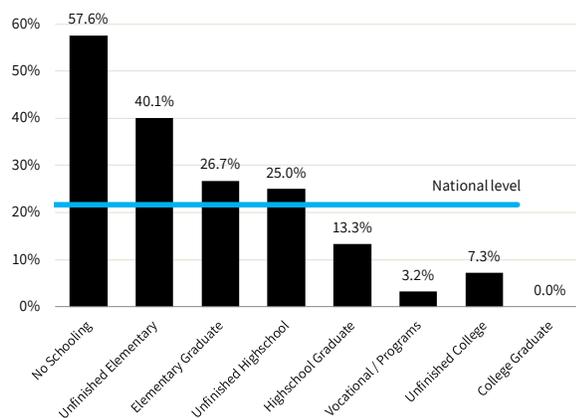
and Figure 2.9). High school education stands out as the key threshold. Households headed by individuals who have not graduated from high school have a poverty risk that is higher than the average. Nearly 60 percent of households headed by individuals with no education and 40 percent of those headed by an individual who did not complete primary education are poor. High school graduation reduces the risk of poverty to two-thirds of the average rate for the population. Among households headed by individuals with complete tertiary education, the risk of falling into poverty is minimal. Eighty percent of the poor live in households headed by individuals with less than a high school education.

Figure 2.8. Educational attainment of household head



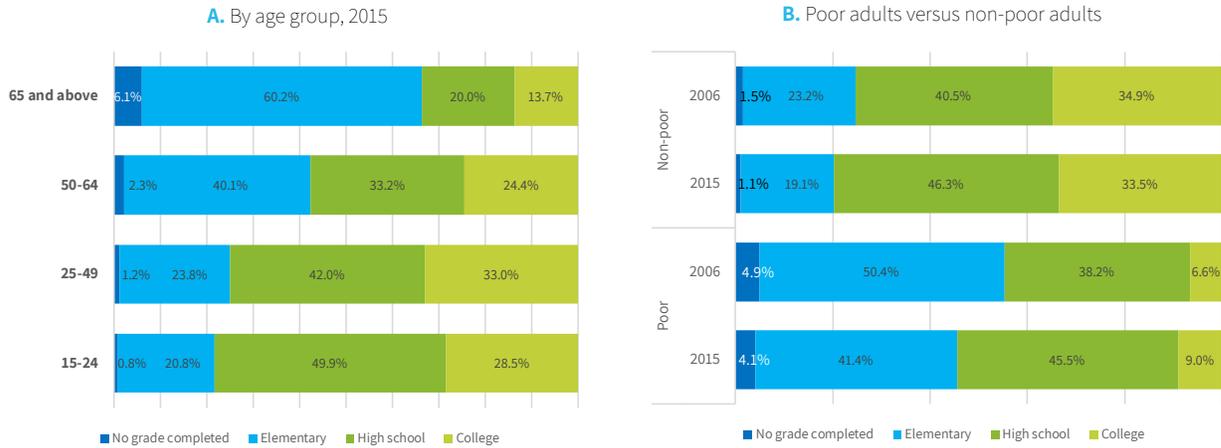
Source: Staff estimates using FIES 2015

Figure 2.9. Poverty rate by educational attainment of household head



Source: Staff estimates using FIES 2015

Figure 2.10. Highest educational attainment of the population



Source: Staff estimates based on LFS 2015

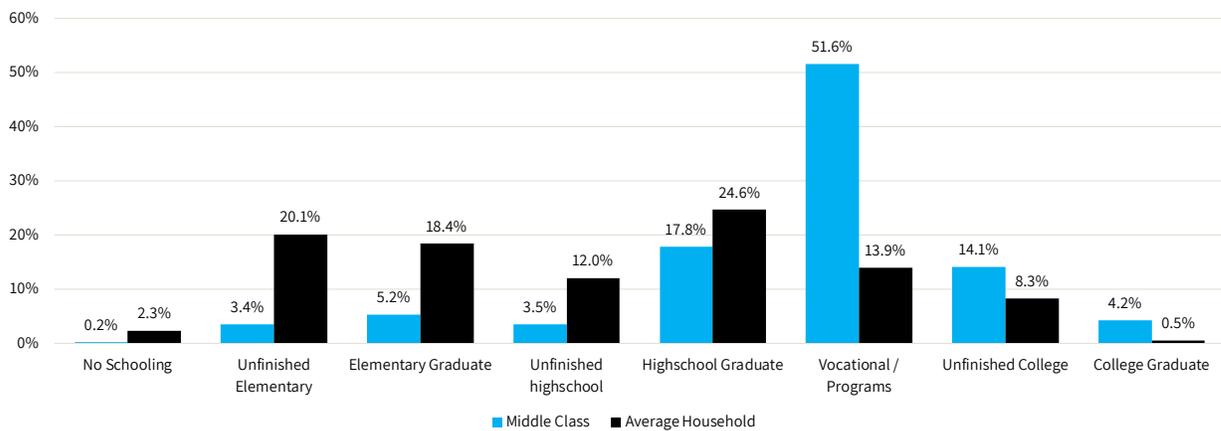
Source: Staff estimates based on LFS 2006 and 2015

Education of the entire population, including the poor and the non-poor, improved over time, but low levels of education remain a common characteristic of the poor (Figure 2.10). The younger cohorts of workers are more educated than the older cohorts. In 2015, over 75 percent of the population in the 15–24 age group had completed secondary education or above, compared with about 35 percent of the oldest in the 65 and above cohort. However, almost half of poor adults have no more than primary schooling; less than 10 percent have any postsecondary education. This sharply contrasts with the education levels of the non-poor. For the high end, among

middle-class households (above US\$15 a day), some 70 percent of which are headed by someone with a post-high school education (including vocational programs and college) compared with less than 25 percent for average households (Figure 2.11).

In the Philippines, having a decent-paying job, not just having a job, is the key factor that conditions living standards (Figure 2.12). Nearly 90 percent of the poor live in households whose heads are employed, compared with 80 percent of the non-poor. But the type of work matters. Nearly 30 percent of the households headed by individuals

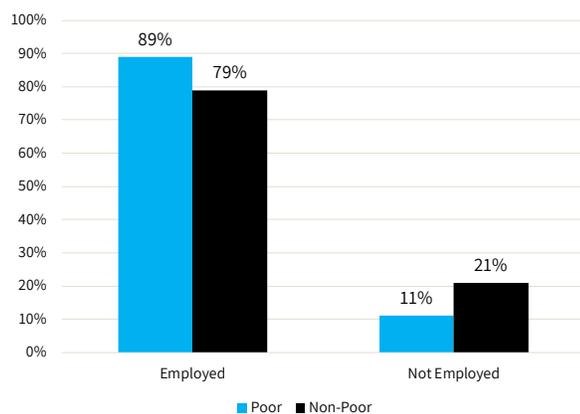
Figure 2.11. Highest educational attainment of the middle class versus average households



Source: Staff estimates using FIES 2015



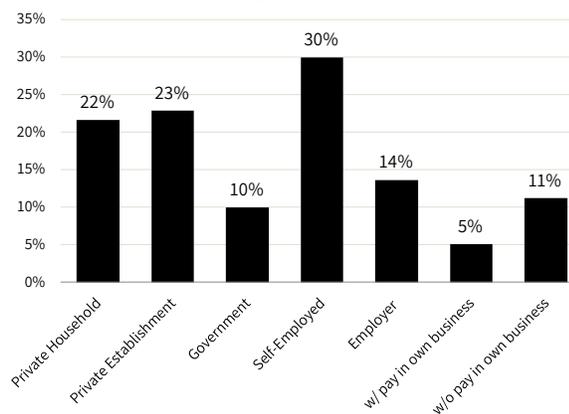
Figure 2.12. Employment status of household head



Source: Staff estimates using FIES 2015

with self-employment (without employees) are poor, a significantly higher percentage than the national average of 21.6 percent (Figure 2.13). Households headed by individuals holding government jobs or working in their own business with pay are much less likely to be poor. Households headed by individuals working without pay are also less likely to be poor, which might be related to migration / remittances received from other members of the household. It is also probable that because of the strong role of remittances, only 12 percent

Figure 2.13. Poverty rate by class of work of household head



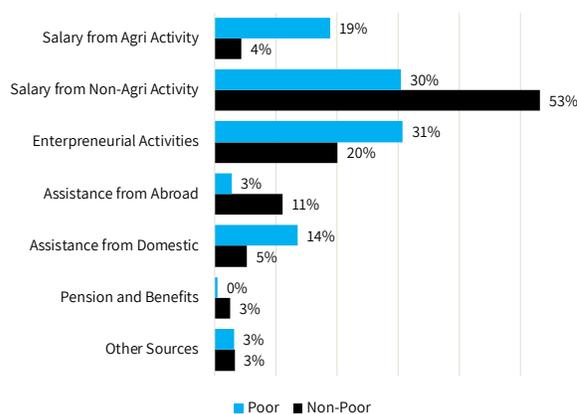
Source: Staff estimates using FIES 2015

of the households headed by individuals who are unemployed are poor.

Over 30 percent of poor households reported their most important source of income to be entrepreneurial activities (Figure 2.14).¹³ In contrast, over 50 percent of non-poor households reported their most important sources of income as salary from non-agricultural activities. Eleven percent of the non-poor households reported that their most important income source was assistance from

13 For agricultural households, a large share of the entrepreneurial activities is agriculture-related. See Annex B for details of the income sources in agriculture households and the agriculture subsection on income and employment shares.

Figure 2.14. Share of households mainly relying on the specific income sources



Source: Staff estimates using FIES 2015

abroad, compared with only 3 percent of the poor households. In the meantime, 14 percent of the poor households reported that their most important income source was assistance from domestic sources, compared with 5 percent of the non-poor households. Poor households received a negligible amount in pensions and benefits.

Nearly 60 percent of the poor work in agriculture, twice the national average, and three times the ratio of the non-poor (Figure 2.15). Overall, the second-largest share of employment is in trade. Manufacturing and other industries account for about 16 percent of the total employment, but only 12 percent of the poor are employed in industries compared with 17 percent of the non-poor.

Households for which agriculture is the main source of income are the poorest (Table 2.1). Among

Figure 2.15. Employment share by sector



Source: Staff estimates using FIES 2015

households that receive the highest share of their income from agriculture, 48.5 percent are poor, far more than the 29.8 percent for rural households in general. In addition, a substantial share of agricultural households are vulnerable to falling into poverty—14 percent of the population that relies on agriculture lived between 100 and 125 percent of the poverty line. Farmhands and laborers, corn farmers, coconut farmers, and fisherfolk are among the very poorest (Box 2.1).

Poor agricultural households also are typically more vulnerable to shocks. First, agricultural production is more exposed to natural disasters, and thus more vulnerable than other sectors. Households depending largely on agriculture for their income face substantial risks of falling back into poverty. A natural disaster tends to affect the cropping cycle, with farmers potentially less able to plant crops,

Table 2.1. Poverty rate of rural households with agriculture and remittances as main sources of income, 2015

| Type of household | Population (million) | Poverty rate (percent) | Number of poor (million) |
|---|----------------------|------------------------|--------------------------|
| All households | 101.6 | 21.6 | 21.9 |
| Of which, rural households | 58.0 | 29.8 | 17.3 |
| Of which, households with agriculture as main sources of income | 18.4 | 48.5 | 8.9 |

Source: Staff estimates using FIES 2015

Box 2.1. The poorest agriculture households

Over the past decade, the top five occupations of the household head of the population at the bottom decile of per capita household income remained corn farmers, farmhands and laborers, coconut farmers, inland and coastal water fisherfolk, and rice farmers. The first four groups have the poverty rates twice or three times the national average. Rice farmers represent a high share of the poorest decile (16 percent in 2006 and 10 percent in 2015), while their incidence of poverty is lower than that of the other four occupations. The average household per capita incomes in the households headed by farmhands and laborers, corn farmers, and coconut farmers are the lowest, accounting for only 55–60 percent of the average rural household income per capita. The average income per capita of households headed by rice farmers was higher than the other four types of households, with an income level close to the rural average.

Much like the trend of changes of national poverty, the poverty rate of these occupations declined. As the labor force gradually moved out of agriculture, the share of the population in each of these occupations declined over time.

| 2016 | | | 2015 | | |
|---|---|---------------------|---|---|---------------------|
| Top 5 occupations of household heads for population at the bottom 10% of income distribution | Share at bottom 10% of income distribution | Poverty rate | Top 5 occupations of household heads for population at the bottom 10% of income distribution | Share at bottom 10% of income distribution | Poverty rate |
| Corn Farmers | 17.7 | 65.2% | Farmhands and laborers | 21.4 | 48.8% |
| Farmhands and laborers | 17.0 | 56.4% | Corn farmers | 13.5 | 61.0% |
| Rice farmers | 16.1 | 39.3% | Rice farmers | 10.1 | 31.1% |
| Coconut farmers | 7.5 | 52.7% | Coconut farmers | 5.2 | 45.6% |
| Inland and coastal waters fisherfolk | 6.3 | 51.8% | Inland and coastal waters fisherfolk | 5.2 | 39.9% |

thus perpetuating the period of income uncertainty. Second, a large share of the poor agriculture households are smallholder farmers and are often net food buyers. In the late 2000s, when the price of rice increased sharply during the global food crisis, millions of poor Filipinos, many of them poor farmers and net food purchasers, suffered.

Poor households spend some 70 percent of their income on food in the Philippines, with rice as the main staple and the greatest single expenditure. The rice price in the Philippines is twice that in Thailand and Vietnam, and considerably higher than the world price. Regardless of the level of household income, expenditure on rice is similar

(roughly ₱19,000–22,000 per household per year in 2015). But the expenditure per capita of the richest quintile is 4.5 times that of the poorest quintile (₱488,000 versus ₱107,000). While rice accounts for only 5 percent of total household expenditure for the richest quintile, it is 20 percent for the poorest quintile. In particular, households headed by farmers are net rice purchasers. Because 19 percent of their household expenditure was used for rice purchase in 2015. The poorest households are more vulnerable to rice price changes (see World Bank 2017d, box I.C.4).

Locations of the Poor

Three-quarters of the poor live in rural areas. Poverty rates are lowest in the NCR and highest in Eastern Visayas and Mindanao. Two out of five poor people in the Philippines live in Mindanao, and over 50 percent of the population in ARMM is poor.

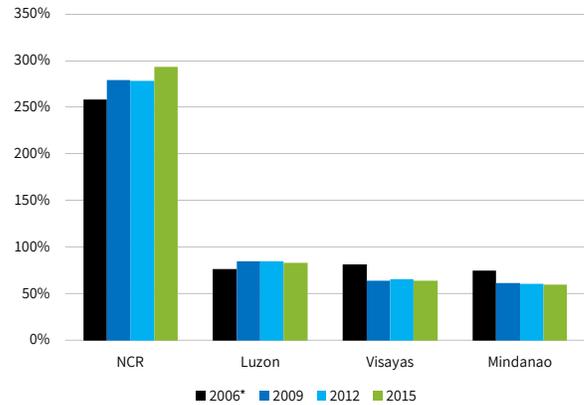
Regional disparities are wide, and some lagging regions are growing even more slowly in recent years than they did in the past. The development gaps between NCR and the rest of the country, particularly the areas outside Luzon, widened over time. Regional GDP per capita in NCR increased to about three times the national average in 2015, while those of Visayas and Mindanao were 64 percent and 60 percent, respectively (Figure 2.16).

Poverty rates also are very low in the NCR and high in Mindanao, and they have remained largely unchanged over time (Figure 2.17 and Figure 2.18). Nearly two-fifths of the poor live in Mindanao. The decline in the poverty rate at the national level in 2012–2015 came primarily from regions outside of NCR.¹⁴

Poverty is mainly a rural phenomenon (Figure 2.19 and Figure 2.20). Nearly 80 percent of the poor live in rural areas. The rural poverty rate and the urban poverty rate both declined over time, particularly after 2012, but the rural poverty rate remained around three times the urban rate.¹⁵

While the urban poverty rate is lower than the rural poverty rate, disparities in living conditions are most evident in urban areas. Shelter inequalities depict significant polarization in the distribution of wealth and resources in cities. Informal settlements are the most visible manifestation of multidimensional poverty in the urban areas of the Philippines (Box 2.2). In most cities, informal settlement communities with no security of tenure and inadequate access to

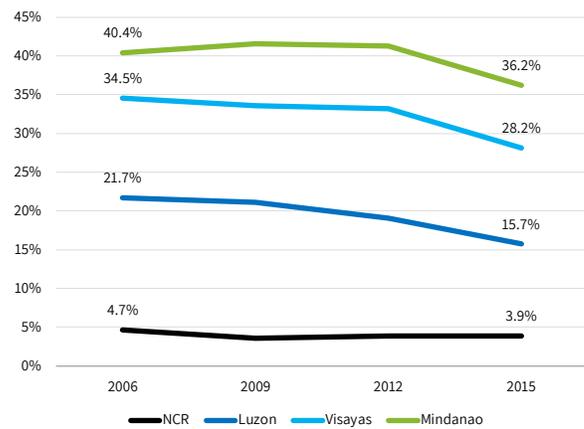
Figure 2.16. Share of GDP per capita by main island group to total



Source: Philippine Statistics Authority

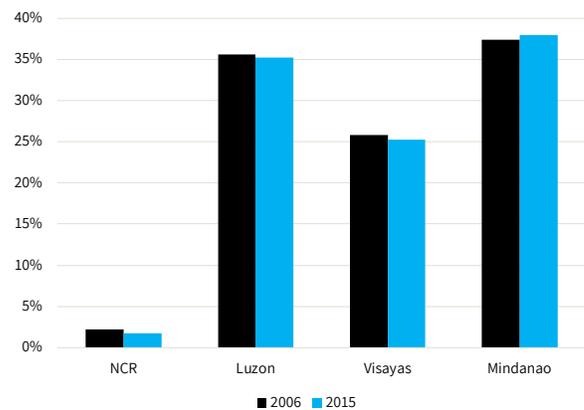
* 2006 data at constant 1985 prices; 2009, 2012, 2015 data are at constant 2000 prices. The numbers are not directly comparable

Figure 2.17. Poverty rate by major island groups



Source: Staff estimates using various FIES rounds

Figure 2.18. Poverty share by major island groups

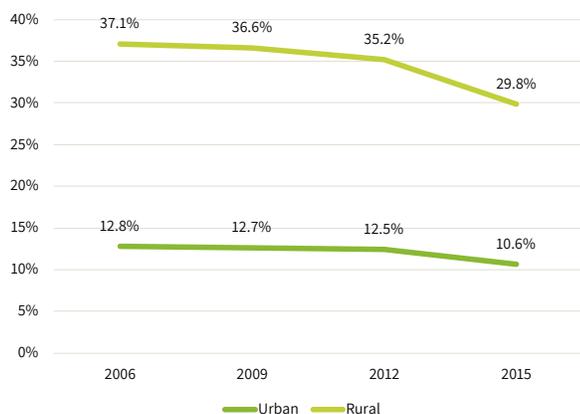


Source: Staff estimates using various FIES rounds

¹⁴ Large migration to the NCR might be one of the reasons for the limited reduction in poverty there.

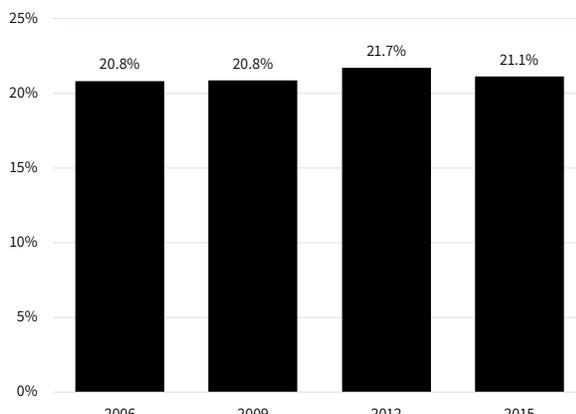
¹⁵ FIES (2003, 2006, 2009, 2012, 2015).

Figure 2.19. Poverty rate in urban and rural areas



Source: Staff estimates using various FIES rounds

Figure 2.20. Poverty share in urban areas



Source: Staff estimates using various FIES rounds

Box 2.2. Poverty among informal settlement families

The Philippines has more than 1.5 million informal settler families (ISFs), nearly 600,000 (or 40 percent) of whom live in Metro Manila, according to the estimates of a recently developed National Informal Settlements Upgrading Strategy. Three million people in Manila, or one out of every four Metro Manila residents, rely on informal housing. As with other developing countries, the pervasiveness of informal settlements in the country can be traced to low income, unrealistic and inadequate urban planning, lack of serviced land and affordable social housing, and a dysfunctional legal system.^a

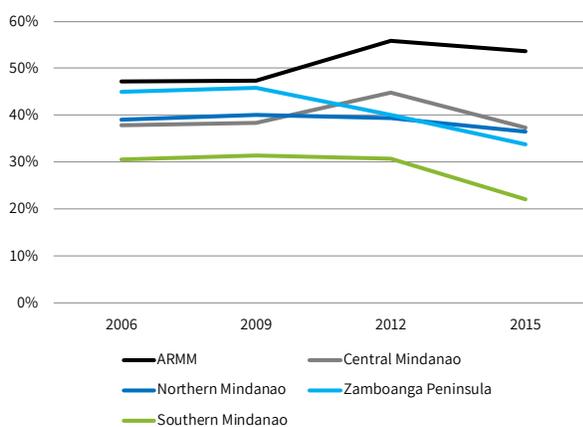
The deprivations that accompany informal housing include increased vulnerability to natural disasters, inadequate access to infrastructure and services, and a lack of physical safety and tenure security, all of which exacerbate and deepen the experience of urban poverty. A majority of the people are forced to remain in informal settlements for decades given the lack of affordable housing options. Informal settlements are the most visible manifestation of multidimensional poverty in the urban areas of the Philippines. Slum households' experience of informality is not limited to the spaces they inhabit, but extends to their jobs, modes of transport, and access to basic services.

^a ICF International and HUDCC 2014.
Note: The box is drawn from the World Bank (2017c)

basic services coexist with exclusive, fully serviced, and gated communities (World Bank 2017c). This phenomenon is most pronounced in Metro Manila, which houses almost 40 percent of the total informal settlements in the country. Many informal settlers live in chronic urban poverty, confronted daily by physical, economic, social, legal, and environmental risks.¹⁶ According to a recent survey covering 21 communities in Metro Manila, households may earn as little as ₱50 to ₱100 per day (World Bank forthcoming a).

The poverty rate is persistently higher in high-conflict regions. (Box 2.2) It is greater in the conflict-affected areas of Mindanao and Eastern Visayas than elsewhere. Over 50 percent of the population in ARMM is poor (Figure 2.21).

Figure 2.21. Poverty rate of high-conflict regions



Source: FIES various rounds

¹⁶ The information of the informal settlers may not be fully representative in the official household surveys, because some ISF might not be covered.



Non-Income Dimensions of Poverty

Poverty is more than a state of financial deprivation. It encompasses a range of socioeconomic factors that collectively tend to lock the poor into their condition. These non-income dimensions include access to education and health care services as well as to basic services such as clean water and sanitation. This section examines these aspects of poverty in the Philippines.

Education and Learning

Rates of adult literacy and school enrollment in the Philippines are similar to those of countries with the same level of income. While the primary school net enrollment rate (96 percent) is as high as in many other East Asian countries, net secondary school enrollment (Figure 2.22) in the Philippines (67.4 percent) ranked behind Malaysia (68.5 percent), Indonesia (75 percent), and Thailand (82.6 percent) in 2015. The adult literacy rate for the Philippines (Figure 2.23) does not differ substantially from most East Asian countries of the similar income level.

In terms of learning, the performance of the education system in the Philippines is far below the regional average (Figure 2.24). The difference in test scores between the Philippines and high-performing countries like Vietnam is equivalent to three years' worth of learning. An important caveat to this finding is that because the Philippines has not been part of a recent international learning assessment,

the Philippines data used for this comparison predates many recent education reforms.¹⁷ The Philippines is participating in the 2018 Programme for International Student Assessment (2018), which will allow for an updated analysis of the performance of the education system relative to other countries.

Access to Health Services

Health outcomes and health care services access are more worrisome. The Philippines did not fare well in many health outcome indicators compared with countries with similar income (Figure 2.25). The Philippines had a life expectancy at birth of about 68 years in 2015. The country had not met Millennium Development Goal targets 4 and 5, related to maternal and child health, by 2015. Its under-5 child mortality was at 28 per 1,000 live births in 2015. Vietnam performs better, while Indonesia and the Philippines have similar outcomes, but are slightly worse-off than other countries of similar income. Children from poor households suffer from an unequal start in life compared with those from rich households.

Childhood malnutrition is pronounced in the Philippines. One in three children under age five is stunted—the principal marker of malnutrition. Based on the worldwide data, a country at the Philippines' level of income would be expected to have a stunting rate of 20 percent, rather than its actual level of 33 percent. The stunting rate in the Philippines is substantially above that of wealthier countries in the region, including Thailand, Malaysia, and China, but also above that

17 The most recent international learning assessment data for the Philippines is from the 2003 Trends in International Math and Science Study.

Figure 2.22. Secondary enrollment and GNI per capita, 2015

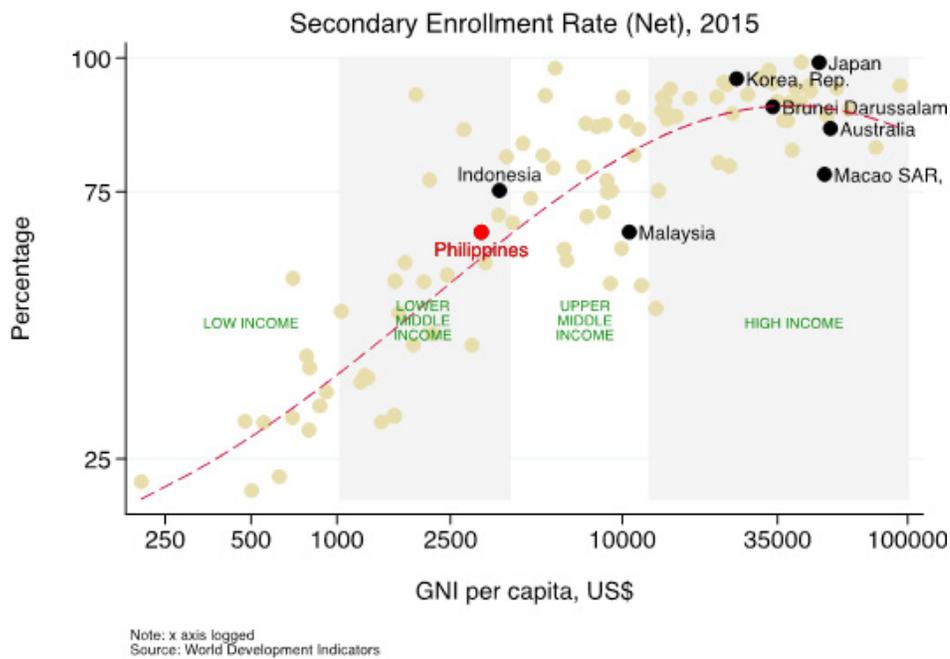
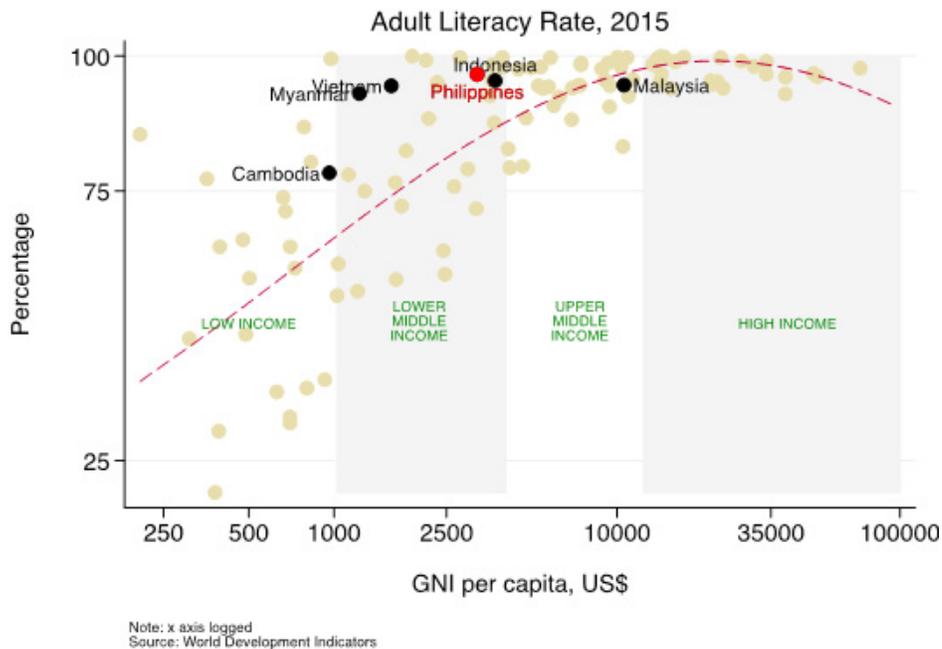


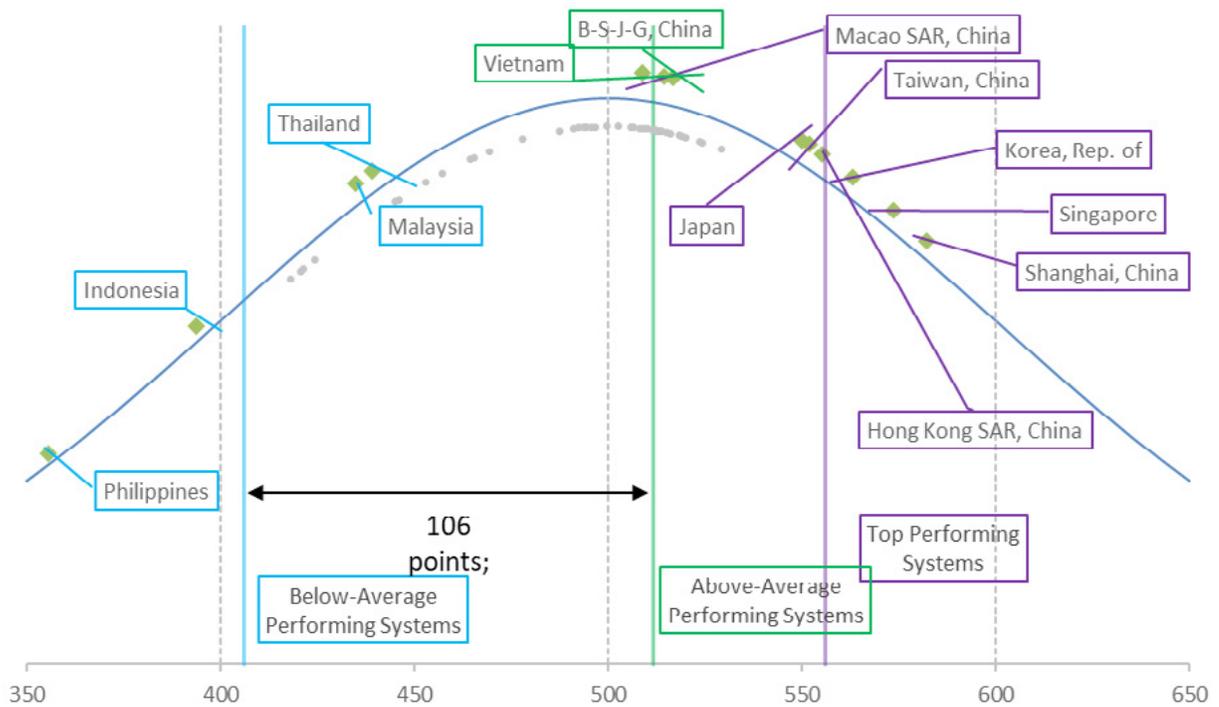
Figure 2.23. Adult literacy and GNI per capita, 2015



of Vietnam, which has a much lower per capita gross national income (GNI) than the Philippines (Figure 2.26). Both the Philippines and Indonesia have much higher levels of stunting than would be expected for their GNI. Filipino children from poor households suffer particularly high rates of malnutrition.

The Philippines has also lagged other countries around the world in its long-term reduction in stunting. The prevalence of stunting in the country has been roughly flat since the early 2000s. Taking into account the earlier decline, the average annualized rate of decline over the period 1995–2015

Figure 2.24. PISA and TIMSS scores in East Asia and the Pacific



Source: OECD; TIMSS; cited from *Growing Smarter: Learning and Growth in East Asia and the Pacific*, forthcoming.

was 1 percent. Many countries around the world have had much faster rates of decline—notable examples include Brazil, China, the Islamic Republic of Iran, and Vietnam. Map 3.1 shows rates of change for countries around the world.

Access and Quality of Basic Services

Poor households often have limited access to sanitation, clean water, electricity, and household assets. Access to all these improved over 2006–2015 among poor households. However, significant disparity between non-poor and poor households persisted. The proportion of poor households with access to basic services remained significantly below that for non-poor households.

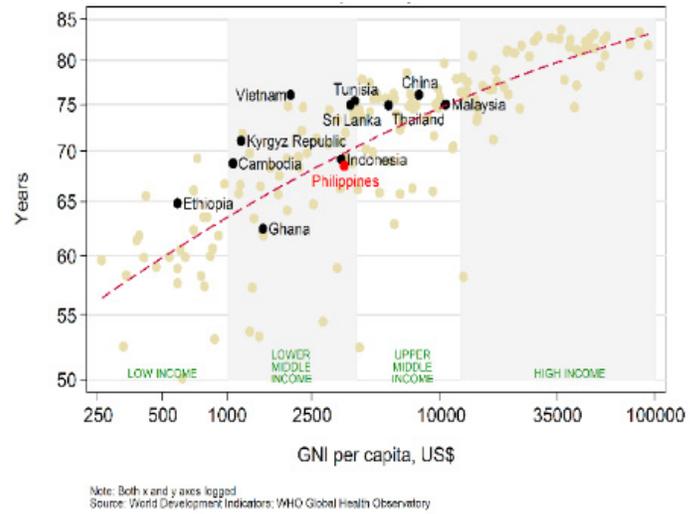
- The access of poor households to sanitation—flush or water-sealed toilets—has significantly improved, from 49 percent in 2006 to 71 percent in 2015, but it remains well below that

of non-poor households (85 percent in 2006 and 94 percent in 2015, respectively).

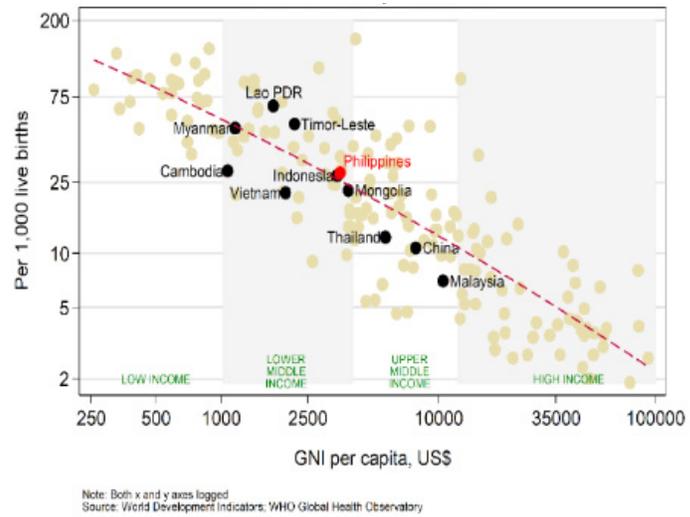
- Access to clean water also remains a problem for poor households. Only 31 percent had access to clean water in 2015, compared to 23 percent in 2006. This is in sharp contrast with the non-poor households: 54 percent of the non-poor households had access to clean water in 2006 and 61 percent in 2015.
- Poor households' access to electricity improved significantly, from 55 percent in 2006 to 75 percent in 2015. However, there is still a considerable difference when compared to the proportion of non-poor households that have quasi-universal access to electricity (92 percent in 2006 and 95 percent in 2015).
- The proportion of poor households with access to at least one communication asset, including mobile and landline phones, television sets,

Figure 2.25. Health outcomes and services

A. Life expectancy at birth, 2015



B. Under-5 child mortality rates, 2015



C. Maternal mortality rates, 2015

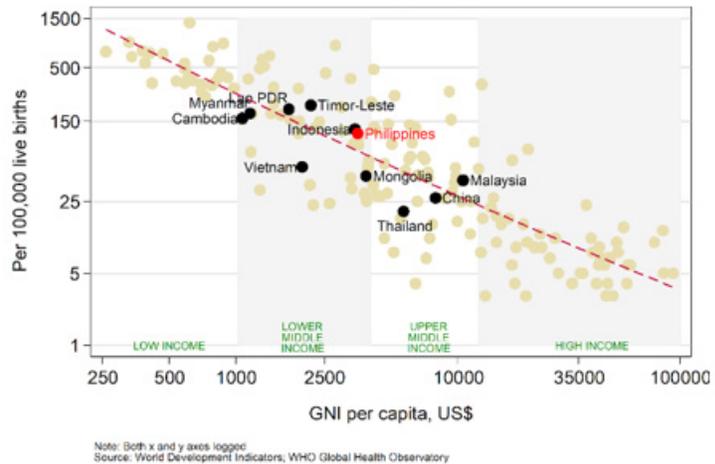
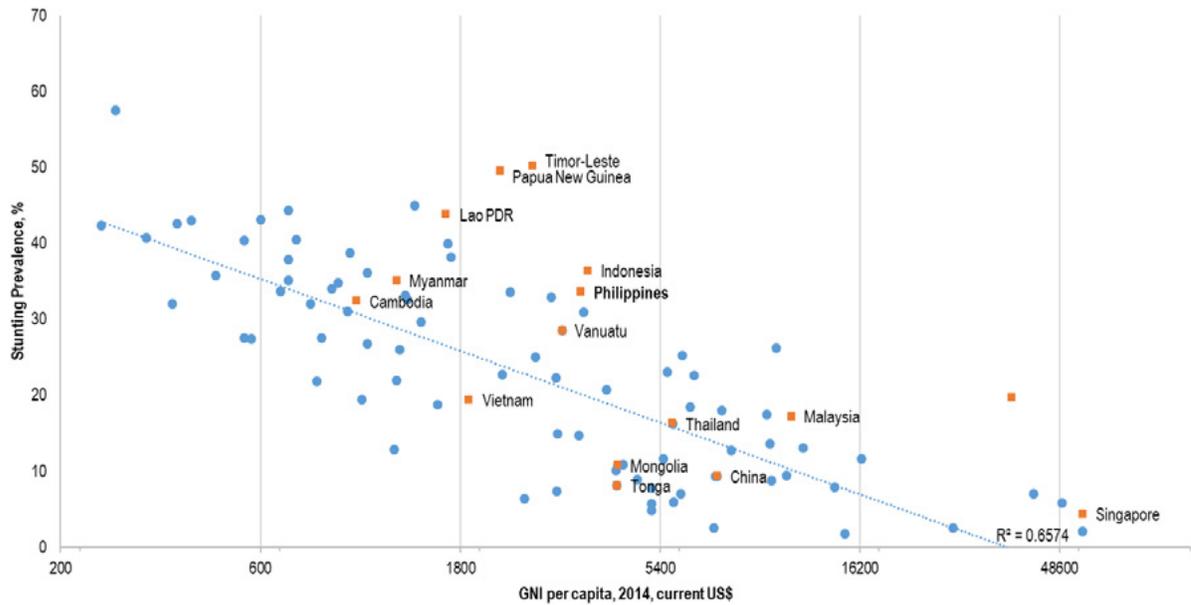


Figure 2.26. Rates of stunting by gross national income per capita



Source: World Bank (2016)

Note: This shows a scatter plot of stunting rates versus gross national income per capita for countries around the world, with countries in East Asia and the Pacific highlighted. The solid line shows the general trend across countries.

and personal computers, increased from 65 percent in 2006 to 85 percent in 2015. The non-poor have near universal access, 94 percent in 2006 and 98 percent in 2015. The 20 percentage point increase for the poor from 2006 to 2015 reduced the disparity between the poor and non-poor households.

- The access to at least one mobility asset (car, motorcycle, or motorboat) by poor households is low, despite a significant improvement from 3 percent in 2006 to 13 percent in 2015. Similar improvement, from 23 percent to 37 percent, is witnessed for the non-poor. The gaps in access between the poor and non-poor remained wide.
- The share of poor households with at least one durable asset, such as a refrigerator, stove with a gas range, washing machine, or air conditioner increased slightly, from 7 percent in 2006 to 12 percent in 2015. This is

significantly lower than the numbers for the non-poor households, at 59 percent in 2006 and 62 percent in 2015, respectively.

A high percentage of individuals in informal urban settlements have limited access to basic services. About 3 percent live on lots without the consent of the owners.¹⁸ People living in informal settlements have lower access to basic services in multiple areas. The difference between the ISF in Metro Manila and the overall population in Metro Manila is sharp in several areas. Less than 60 percent of Metro Manila ISFs have access to durable assets, while 80 percent of the Metro Manila population has access to at least one. Only 55 percent of the ISF have access to good housing materials, while nearly 80 percent of the population does. And only 40 percent of the ISFs have access to clean water, while more than 85 percent of the population has access to clean water.

18 Living on lots without the consent of the owners is used here as a proxy for informal settlement. The share of population living in lots without owner consent is lower than the reported share of the population living in informal settlements, drawing from the slum survey in Metro Manila. Drawing from FIES 2015, about 6 percent of the population in Metro Manila live in lots without the consent of owners. Possible reasons include the differences in sample frame and in definition. See World Bank (2017e) for details.

Sources of Household Income

Salaries and wages, entrepreneurial incomes, and transfers and remittances are the most important sources of household income in the Philippines. In 2015, these sources combined accounted for four-fifths of household income. Over half of this was from salaries and wages, while enterprise income provided about a quarter (Figure 2.27).

Among poor households, salaries and wages account for the biggest share of income, though less than for non-poor households, made up in part by a larger share in enterprise income. Disaggregating these components further reveals that agriculture is still a significant source of income for poor households.¹⁹ Over one-third of salaries and wages come from agricultural activities and about two-thirds of enterprises are agriculture-related. Interestingly, the share of transfers and remittances is the same for both poor households and non-poor households; the difference is the source. Remittances and transfers to poor households come from domestic sources, while those for non-poor households are mainly from foreign sources.

The share of pensions and retirement benefits is minimal. This indicates the lack of financial security for the elderly. Imputed rent of owner-occupied dwellings and other minor sources²⁰ complete the composition of household incomes. Among poor households, a greater part of the residual is related to agricultural production, particularly subsistence farming.

The sources of income have changed structurally over the past decade. Dependence on agricultural incomes has declined, particularly among poor households. The share of incomes from agricultural enterprises has dropped by 10 percentage points. Subsequently,

Box 2.3. Poor informal settler families suffer from lack of adequate access to basic services

Informal settlements are a manifestation of poverty and inequality in urban areas. A survey of 3,000 ISFs in Metro Manila found that almost half of them obtain water through vendors, paying 9–13 times more for the delivery of water than households living in adjacent, fully serviced neighborhoods.^a The major constraint that prohibits ISFs from accessing potable water is the connection fee. New connection fees are equivalent of US\$97 and US\$176 in Manila West and Manila East, respectively.^b Additionally, there are administrative requirements such as proof of land title, which prevent many households from connecting individually. While 93 percent of the urban poor sampled report having access to water-sealed septic tanks,^c many of them are improperly designed and hardly maintained, allowing human waste to pollute the water. The Philippines has a very high electricity rate—the fifth most expensive in the world, averaging at US\$0.24 per kilowatt-hour in 2012.^d The high electricity rate forces many ISFs to resort to shared connection or “jumping,” illegal connection to neighbors or public electricity. Access to education is also limited due to financial constraints. In the Philippines, public education is provided for free from kindergarten to 12th grade. However, surveyed ISFs responded that expenses for textbooks, school supplies, uniform, lunches, and transportation costs are often a burden they cannot afford.^e

Source: The box is drawn from World Bank (2017c).

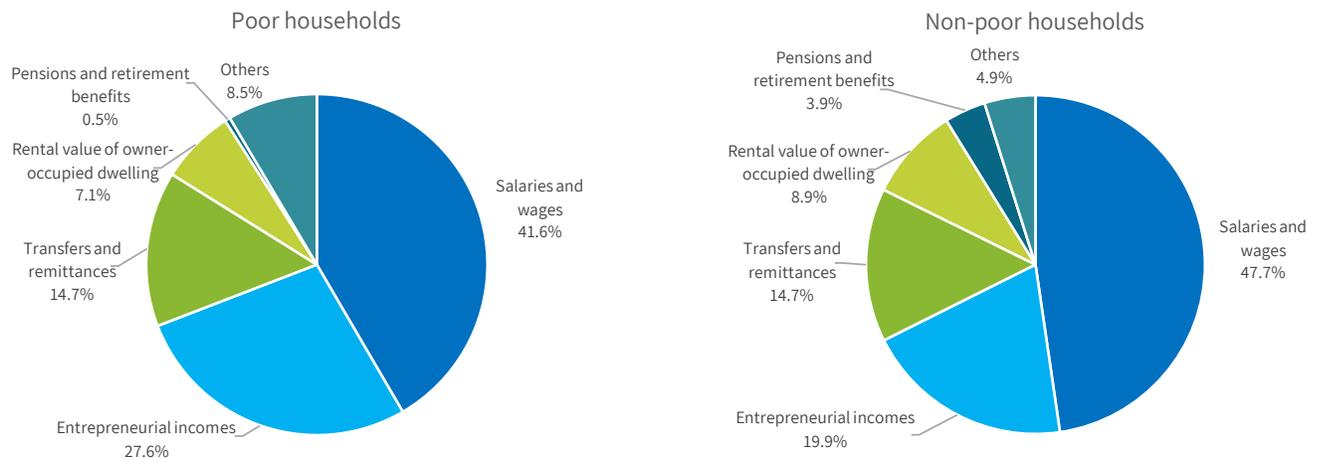
- a. Ballesteros 2010.
- b. ADB 2014.
- c. World Bank 2016d.
- d. International Energy Consultants 2012.
- e. World Bank 2016d.

the share of wages and salaries from non-agricultural employment increased by about 4 percentage points. Despite that, agriculture still accounts for two-fifths of the incomes of the poor.

19 Due to data limitation, agriculture refers to only primary agricultural production and agricultural employment refers to farm laborers. Any selling of agricultural produce in the market was captured under business in the survey questionnaire

20 Includes net share of agricultural production, subsistence farming, dividends from investments, interest from bank deposits and loans extended to other households, rental income from lands and properties not used for agriculture, and gifts received.

Figure 2.27. Components of household income, 2015



Source: Estimates using FIES 2015

The share of government transfers in the incomes of poor households has increased in recent years, from 0.1 percent of in 2006 to 6 percent in 2015. This reflects the government’s effort to improve social programs. Most notable among those programs is the *Pantawid Pamilyang Pilipino* Program, a CCT program that accounted for three-quarters of the government transfers²¹ received by poor households in 2015. Such programs partly offset the lack of safety nets and income security, particularly among poorer households.

Vulnerability to Disaster

As in many other countries, the poor and vulnerable suffer the most due to their higher exposure to disaster risks (including living in the wrong locations and greater reliance on agriculture) and more limited capacity to cope (due to lower savings to serve as a buffer against difficult times). The disaster-prone regions have a higher poverty rate (Table 2.2).

Table 2.2. Poverty rate for regions prone to earthquakes

| Regions with degree IX-XII in the Mercalli Scale for Earthquake Intensity | Poverty Rate | | | |
|---|--------------|------|------|------|
| | 2006 | 2009 | 2012 | 2015 |
| Bicol Region | 44.2 | 44.2 | 41.1 | 36.0 |
| Eastern Visayas | 41.5 | 42.6 | 45.2 | 38.7 |
| Western Visayas | 29.1 | 30.8 | 29.1 | 22.4 |
| Caraga | 49.3 | 54.4 | 40.3 | 39.1 |
| Southern Mindanao | 30.6 | 31.4 | 30.8 | 22.0 |

Source: FIES and staff estimates

21 Other government transfers include cash assistance or relief during calamities and programs initiated by local governments, such as scholarships and benefits for the elderly.



Natural disasters impose extremely high economic and human costs in the Philippines.²² The Philippines is located on the “Pacific Ring of Fire,” a line of volcanic and seismic activity that runs along the edge of the Pacific Ocean. An average of 20 tropical cyclones hit the country every year, of which 5 to 7 are destructive (Bowen 2016). The increase in temperature due to climate change is projected to lead to more intense tropical storms and typhoons. The Philippines currently has the second-highest level of disaster risk in the world and is the eighth-most vulnerable country to the effects of climate change (United Nations University and Alliance Development Works 2014). Manila is the fourth-most exposed city in the world to natural disasters. Approximately 74 percent of the country’s population and 60 percent of its land area are susceptible to multiple natural hazards (GFDRR 2014). Natural disasters have caused an estimated US\$23 billion in damages in the Philippines since 1990, making it one of the most disaster-prone countries in the world (World Bank 2017d). The repeated and increasingly frequent natural disasters are undermining poverty reduction in the Philippines. Typhoon Yolanda, one the strongest typhoons ever recorded, affected some of the country’s poorest regions and resulted in nearly 6,300 casualties, 4.1 million people displaced, and pushed up to an additional one million people into poverty (Philippines, NEDA 2013, p. 3; UNISDR 2015, p. 49). Over 10 percent of Filipinos lived just above the national poverty line in 2015. Shocks, such as natural disasters, can push and even trap them in poverty. However, the costs of natural disasters go well beyond the replacement costs of

affected buildings, infrastructure, equipment, and agriculture, as made clear by the estimate that, on average, upwards of a million Filipinos are impoverished each year by natural disasters.

The same level of asset loss affects poor and marginalized people far more than wealthier people because their livelihoods depend on fewer assets, and their consumption is closer to subsistence levels. The poor and vulnerable cannot rely on savings to cope with the impacts of losses, placing their health and education at greater risk and potentially requiring more time to recover and reconstruct. A recent World Bank report applies the socioeconomic resilience methodology and finds annual “well-being” costs (or impact on quality of life) to make explicit the impacts of natural disasters on consumption and to account for the more severe impact of asset loss and consumption loss on well-being of the poor and to identify the socioeconomic capacity of different regions (Box 2.4).

Costs of Conflict

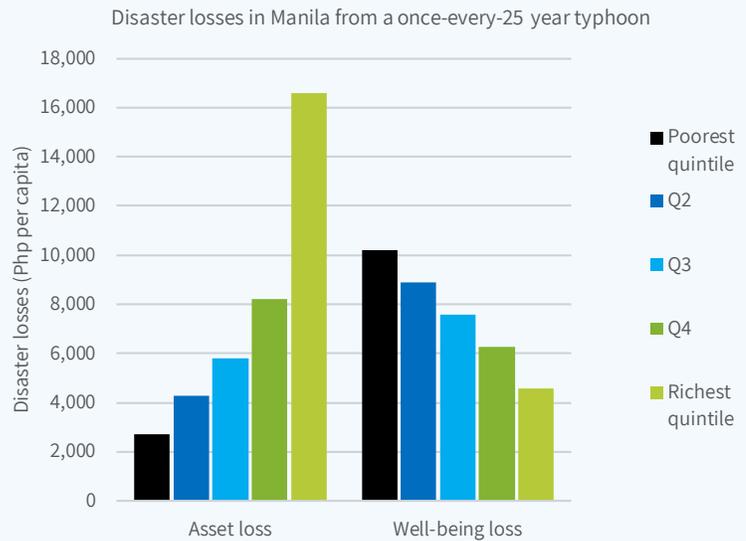
The Philippine archipelago is home to some of the world’s longest-running subnational armed conflicts. Protracted conflict, particularly in some areas of Mindanao, has exacted a great toll on the local economy and trapped people in poverty. Security,

22 See Annex C for more discussion on the disasters and investment.

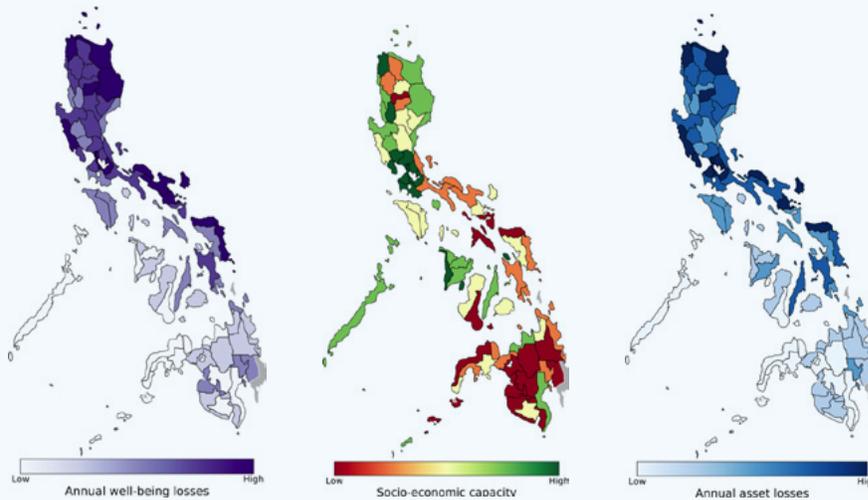
Box 2.4. The poor suffered greater loss of well-being for any given asset loss

A socioeconomic resilience assessment conducted by the government found that the Philippines suffers asset losses of around Php182 billion, and well-being losses (or impact on quality of life) of around P208 billion each year due to natural disasters. However, while the asset losses of the poorest Filipinos account for only 7 percent of total asset losses (P12.2 billion per year), they suffer 27 percent of the total well-being losses (P56 billion per year).

The same peso value of asset losses has a greater impact on the well-being of the poor than of the non-poor. For example, a once-every-25-years typhoon in Manila causes P2,700 in asset losses per capita for the poorest quintile, while the wealthiest quintile loses assets worth P16,600 per capita. However, these losses affect the poorest and wealthiest residents of the capital very differently: equivalent well-being losses are nearly four times higher than asset losses (P10,200 per capita) for the poorest quintile, while the wealthiest quintile experiences well-being losses of roughly a third of asset losses (P4,600 per capita).



Socioeconomic capacity, defined as the ratio of asset-to-well-being losses, measures the capacity of individuals to minimize the effects of natural disasters on their well-being. For example, a population with socioeconomic capacity twice as large as another will experience half the well-being losses for the same asset losses. The metric is defined for each province in the Philippines and varies widely across regions. Due to factors that condition the resilience of a region, such as quality of housing and infrastructure, financial inclusion, social protection, diversification, early warning systems, and remittances, regions in eastern Visayas and Mindanao are characterized by lower socioeconomic capacity. Despite their relative ability to cope with disasters, well-being losses in Luzon and the Eastern Visayas are high due to the elevated exposure of those regions to typhoons and earthquakes.



Source: World Bank Group (2017f); also see Annex D.

Box 2.5. Vicious cycle of conflicts and poverty

Conflicts not only destroy physical assets, they erode human capital through death, injuries, and illnesses, denial of education and health services, as well as malnutrition, reducing the earning ability and capabilities of affected household members.^a Communities with high conflict intensity, such as in ARMM, have low and worsening human capital indicators compared with areas with low intensities of conflict (such as Davao) or in peaceful communities. On the Human Development Index, the provinces in ARMM languished at the bottom in 2012, while Davao provinces are close to the national average of 0.644.

The low levels of human capital endowments in certain communities is both a result of neglect in the provision of social services and the deterioration of available human resources. These are borne out by three factors: local governance failure where corruption and weak governance limited the provision of basic services, violent conflicts that further disrupt the provision of basic services, and emigration of the most skilled.

As a result, the areas of high conflict intensity, such as ARMM, have been trapped in a vicious cycle of conflict and poverty, with low physical and human capital investment due to low degree of predictability, low value-added products, low technology, small firm size, large informal sector, and prevalence of “shadow economies.”

a For more details, see World Bank 2017h.

justice, and economic stresses are closely linked (Box 2.5). Addressing the causes of conflict and providing jobs and economic opportunities are crucial for resolving the root causes of conflict and violence.

Poverty is higher in the conflict-affected areas of Mindanao and Eastern Visayas. Two out of five poor people in the Philippines live in Mindanao, and over 50 percent of the population in ARMM is poor. Poverty incidence is persistently higher in high-conflict regions (Table 2.3).

Table 2.3. Poverty incidence of high-conflict regions

| | 2006 | 2009 | 2012 | 2015 |
|--------------------------|------|------|------|------|
| IX - Zamboanga Peninsula | 45.0 | 45.8 | 40.1 | 33.9 |
| X - Northern Mindanao | 39.0 | 40.1 | 39.5 | 36.6 |
| XI - Southern Mindanao | 30.6 | 31.4 | 30.8 | 22.0 |
| XII - Central Mindanao | 37.9 | 38.3 | 44.8 | 37.3 |
| ARMM | 47.1 | 47.5 | 55.8 | 53.7 |

Source: FIES varies rounds



CHAPTER THREE

Labor Market Performance

Sector and Status of Employment of the Poor | Labor Market Status of Various Groups
Education and Labor Market Status | Returns to Education

Labor Market Performance

- **The key challenge** in the Philippines labor market lies in the quality of jobs: most of the poor are working poor. They have been deprived of the opportunity to benefit from growth, not because of unemployment but because of the low pay level of the available jobs or underemployment.
- **Employment** gradually shifted out of primary production agriculture. Unlike many countries in East Asia, where labor-intensive manufacturing absorbed most of the surplus agricultural labor, in the Philippines, they have moved into less well-paying services. Real wages, particularly for workers in the private sector, increased only marginally in the past decade, which limited the gains for labor from structural transformation and could negatively affect the Philippines' long-term competitiveness.
- **The population has become more educated over time**, and the younger cohort is more likely to be employed in jobs with better pay compared with the older generations. However, the poor, including younger workers from poor households, remained less educated and more likely to be consigned to low-paid jobs.
- **There is a mismatch** between skills supply and demand, particularly for workers in skill-intensive occupations. Workers with higher levels of educational attainment report longer delays in finding employment and are more likely to be unemployed.
- **The labor market** segmentation between urban and rural as well as between NCR and the rest of the country persisted. The less educated, women, and youth face the greatest challenges in finding employment with a decent wage. Women in the labor force are more educated than men, but they earn less than men at every level of education.
- **More education** is strongly associated with wage employment and higher earnings. Few Filipinos who have not completed secondary education hold well-paying jobs.

This chapter assesses recent labor market performance in the Philippines, focusing on the quality of jobs, structural transformation, and disparities between regions. Using the Labor Force Surveys (LFS) for 2006, 2009, 2012, and 2015, it reviews key labor market indicators, including active population, labor force participation, employment, unemployment, and underemployment, and wage income based on region and population groups, such as educational attainment, gender, age, and other characteristics, and examines the returns to different levels of education.

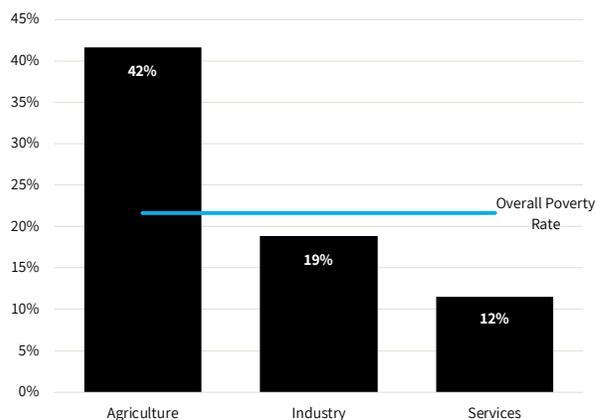
Sector and Status of Employment of the Poor

Poor-quality jobs (or “in-work poverty”), rather than unemployment, is the key challenge in the Philippines.²³ Poverty (based on the national poverty line) is closely associated with the employment sector and activity status of the household head, not whether the household head is employed (Figure 3.1 and Figure 3.2). The poverty rate of households headed by the employed is similar to the national

average of 21.6 percent. Households headed by individuals working in agriculture or self-employed have the highest poverty rate. This highlights the challenge of job quality—having a job is not a ticket out of poverty; many poor families are headed by the working poor and those working in agriculture. Households headed by the unemployed, a large share of which are migrant households, or own family businesses, had the lowest poverty rate.

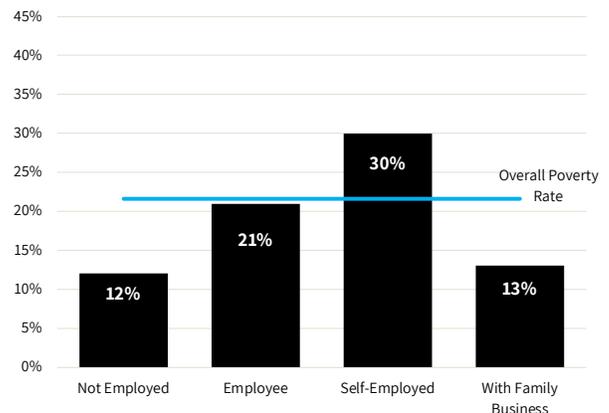
The nature of employment tells the story with vivid numbers. Three out of four households are headed by someone who is employed (Figure 3.3). The poverty share of households headed by the wage-employed is similar to their population share (roughly 45 percent), but those headed by the self-employed are more likely to be poor—while 31 percent of the population lives in households headed by the self-employed, they represent 43 percent of the poor (Figure 3.4). While nearly 18 percent of the population is in households headed by someone who is not employed (including those not seeking employment), they represent only 9 percent of the poor. Similarly, 6 percent of the population is in households headed by someone with a family business, but they represent only 4 percent of the poor.

Figure 3.1. Poverty rate by employment sector of household heads



Source: Staff estimates using FIES 2015

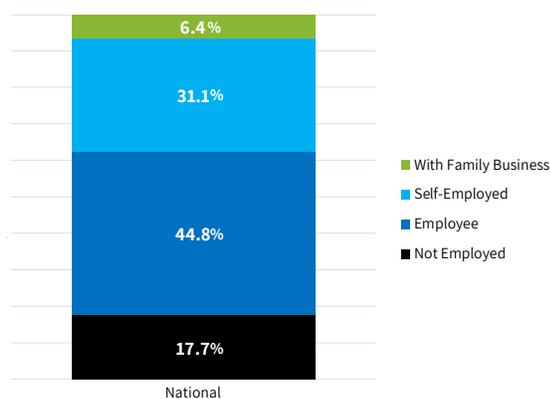
Figure 3.2. Poverty rate by employment status of household heads



Source: Staff estimates using FIES 2015

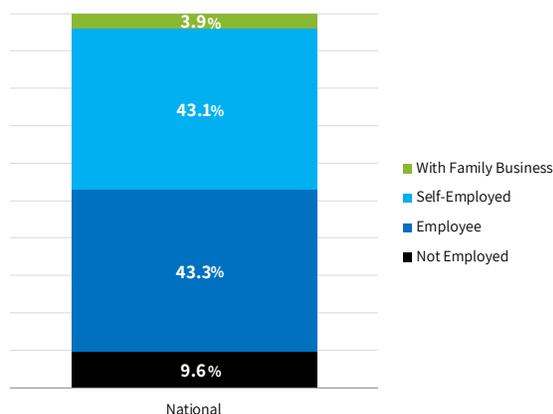
23 See more discussion in World Bank (2016f).

Figure 3.3. Poverty rate by employment sector of household heads



Source: Staff estimates using FIES 2015

Figure 3.4. Poverty rate by employment status of household heads

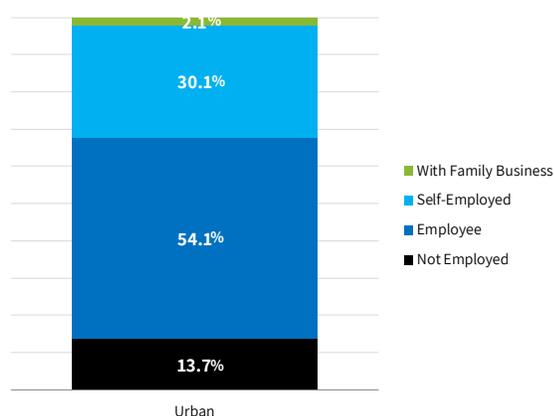


Source: Staff estimates using FIES 2015

In both urban and rural areas, the working poor account for 85 percent of the poor. In urban areas, a higher share of the poor live in households headed by the wage-employed (54 percent), compared with those headed by the self-employed (30 percent).²⁴ This is consistent with the finding of a recent case study of extreme poverty in the Philippines, which suggests that the primary constraint facing poor households in urban areas is the low level of wages paid to unskilled workers.²⁵ The opposite is

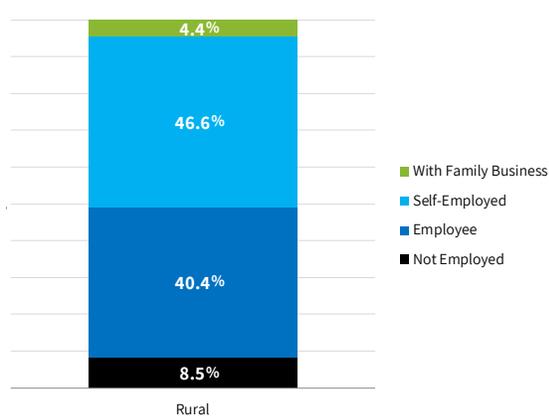
true in rural areas (40 percent versus 47 percent). This is consistent with the observations of a higher share of wage employment in urban areas and self-employment in rural areas. Households headed by those not employed are a relatively small group that represents less than 10 percent of the poor; and households headed by those with a family business account for only 4 percent (Figure 3.5 and Figure 3.6).

Figure 3.5. Poverty shares by employment status of household heads in urban areas



Source: Staff estimates using FIES 2015

Figure 3.6. Poverty shares by employment status of household heads in rural areas



Source: Staff estimates using FIES 2015

24 The self-employed do not have wages reported in the LFS, so do those employed in family owned business without pay.

25 See more details in World Bank (forthcoming a). In the report, respondents in poor urban communities report that wages for retail, household, or construction labor are often very low. Households may earn as little as PHP 50 to PHP 100 per day.

Labor Market Status of Various Groups

An individual's labor market status has an important influence on his or her poverty risk. Overall, the labor market in the Philippines is characterized by a high employment rate, a low unemployment rate, a high underemployment rate, and a limited increase in the real wage level (Table 3.1). The average employment and earning status has changed little over the past decade. The ratio of working-age population to total population was about 66 percent over the past decade. Labor force participation declined slightly, from 63 percent in 2006 to 61 percent in 2015. The ratio of employment to working-age population is nearly 60 percent and has changed little over time. Unemployment declined from nearly 8 percent in 2006 to 6 percent in 2015, but this masks the challenges associated with low-quality jobs. Over the past decade, the underemployment rate hovered around 20 to 22 percent.²⁶

Over 2006–2015, labor demand caught up with the fast-growing labor supply, but the quality of jobs created has been lagging behind. With consistent

net positive new job creation, employment growth was at par with the working-age population growth (both at about 20 percent over the period), and even slightly faster than the labor force growth (about 16 percent for the same period), resulting in a decline in the unemployment ratio (Figure 3.7). However, a large share of the employment created is with low wages. The rapid expansion of employment also might have exerted negative pressure on wages.

Millions shifted out of primary production agriculture in the past decade (Figure 3.9 and Figure 3.10).²⁷ Unlike in many neighboring East Asian countries where surplus agricultural labor moves to labor-intensive manufacturing, the majority of the workers in the Philippines who moved out of agriculture went to services. The share of the total labor force working in agriculture declined from 36 percent in 2006 to 28 percent in 2015, the share working in industry increased from 15 percent to 17 percent only, and the share working in services increased from 50 percent to 56 percent. The share of the poor working in agriculture declined from 67 percent in 2006 to 58 percent in 2015, the share working in industry increased from 10 percent to 13 percent only, and the share working in services increased from 23 percent to 29 percent.

3.8 While GDP increased by about 60 percent,

Table 3.1. Employment and earnings status

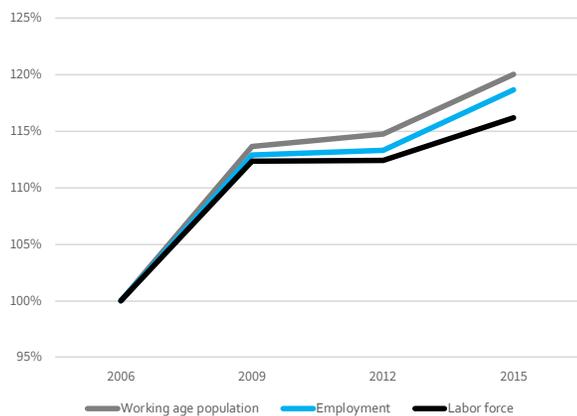
| Year | Working-age population (>=15)/total population | Labor force participation rate | Employment to working-age population ratio | Unemployment rate | Under-employment rate | Daily wage (2006 pesos) |
|-----------------|--|--------------------------------|--|-------------------|-----------------------|-------------------------|
| 2006 | 65% | 63% | 58% | 8% | 22% | 259 |
| 2009 | 67% | 63% | 58% | 7% | 20% | 263 |
| 2012 | 67% | 62% | 58% | 7% | 21% | 263 |
| 2015 | 67% | 61% | 58% | 6% | 20% | 269 |
| Growth, 2006–15 | 1% | -2% | -1% | -2% | -2% | 4% |

Source: Staff estimates using various rounds of LFS

26 Underemployment is defined as “persons in underemployment are all those who worked or had a job during the reference week but were willing and available to work “more adequately”; following the International Labor Organization definition.

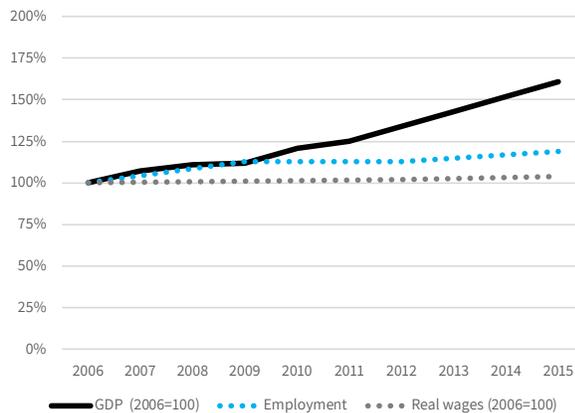
27 See Annex E for discussions on employment seasonality and employment dynamics.

Figure 3.7. Working-age population, labor force, and employment growth



Source: Staff estimates using LFS, various rounds

Figure 3.8. GDP, employment, and real wage growth



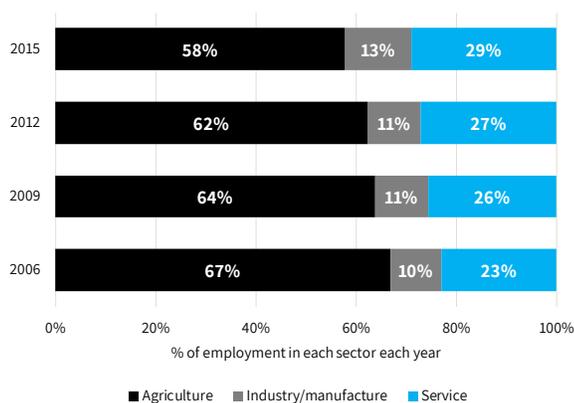
Source: Staff estimates using LFS, various rounds

employment increased nearly 20 percent, but real wages were stagnant, with only a 4 percent increase in real terms over the period 2006–2015 (Figure 3.8).²⁸ The minimal increase in wage suggests the limited gain for labor in the process of the structural shift of employment.

There was a positive shift to employment with higher earning potential, but real wage increase was minimal. In 2006–2015, the share of employment

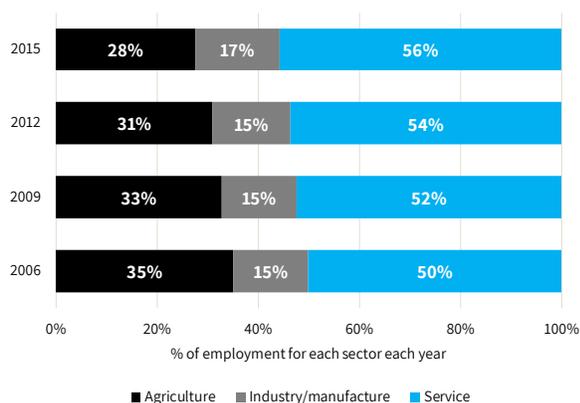
in private establishments increased, and that of wage employment in private households, self-employment, and unpaid work declined (Figure 3.11). However, the increase in wages for workers in private establishments was only some 1.5 percent, while the increase for government employees was 11 percent, and that for private household workers was 9 percent. Increases in wages among workers in government and in private households are related to key wage legislation that led to more rapid growth

Figure 3.9. Share of employment of the poor by sector



Source: Staff estimates using LFS, various rounds

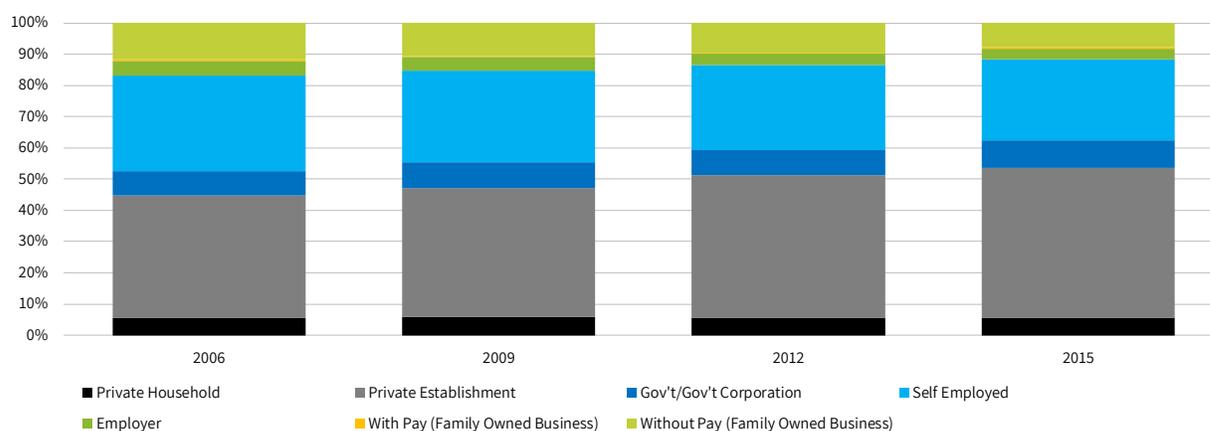
Figure 3.10. Share of employment of an average Filipino by sector



Source: Staff estimates using LFS, various rounds

28 The information collected from the LFS is from a sole informant for each household. The respondent is either the household head or the spouse or, in their absence, any responsible adult member of the household. Second-hand accounts of sensitive information such as wage and salary may be underestimated (or overestimated). Due to the data limitation, the analysis of real wage covers the workers who reported positive wage only. The earning of those self-employed and work without paid are not included in the statistics. The results related to wage need to be interpreted with caution.

Figure 3.11. Changes in the composition of employment status over time



Source: Source: LFS, various rounds.

in public sector wages.²⁹ The minimal increase in real wages in the private sector, where the largest share of workers is employed, might suggest the limited gains for labor from structural transformation.

Variation by Region

The labor market environment in NCR is very different from other regions. It is characterized by a high active population rate, a low participation rate,

a low employment rate, a high unemployment rate, a low underemployment rate, and a high daily wage (Table 3.2). Mindanao and Visayas are at the other end of the spectrum. They are characterized by a low active population rate, a high participation rate, a high employment rate, a low unemployment rate, a high underemployment rate, and a low daily wage. These are all consistent with the wide variation in labor supply and demand, and thus the quality of jobs, across regions.

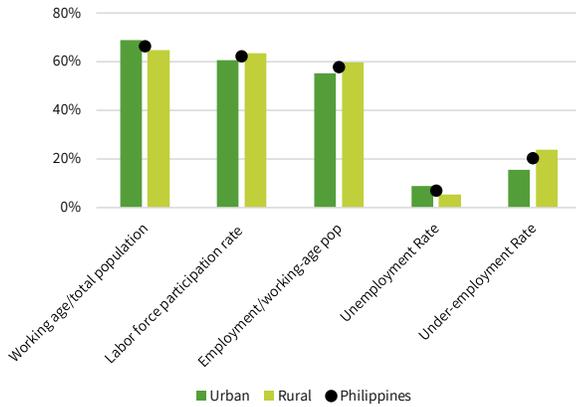
Table 3.2. Labor force participation by region, average 2006–2015

| Region | Working-age population (>=15)/total population | Labor force participation rate | Employment to working-age population ratio | Unemployment rate | Underemployment rate | Daily wage (2006 pesos) |
|---------------------|--|--------------------------------|--|-------------------|----------------------|-------------------------|
| NCR | 70% | 61% | 55% | 10% | 12% | 402 |
| Luzon (without NCR) | 67% | 62% | 57% | 7% | 20% | 259 |
| Visayas | 66% | 63% | 59% | 6% | 23% | 208 |
| Mindanao | 64% | 63% | 60% | 5% | 24% | 208 |
| Philippines | 66% | 62% | 58% | 7% | 21% | 263 |

Source: Staff estimates using various rounds of LFS

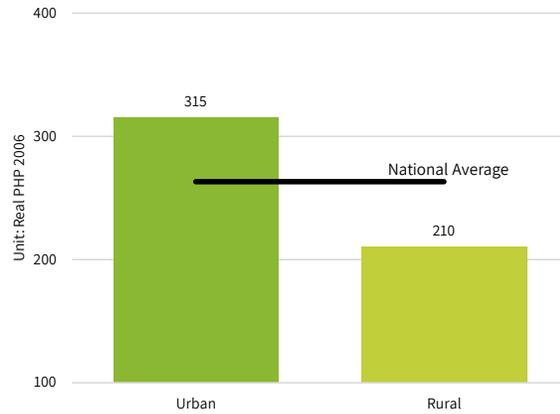
29 Two laws on the public sector salary standardization were implemented in the last 10 years. The first was Joint Resolution No. 4 by the Fourteenth Congress that authorized President Gloria Macapagal-Arroyo to modify the compensation package for government, military, and uniformed personnel. The revised compensation took effect a year after it was signed in July 2008 for employees in national government offices, and after eighteen months for employees in local government. The salary increase was implemented in equal tranches over four years. Another round of salary standardization through Executive Order No. 201 took effect in July 2016. This legislation ensured comparability of wages in government, particularly management-level positions, with prevailing rates in the private sector. This new adjustment in wages will take effect in stages through 2019. Another important piece of wage legislation is the Domestic Workers Act or Kasambahay Law, which regulates wages given to household employees and enforces the provision of social and other benefits. Wages of those working in private households have grown, on average, by 4.2 percent annually since the law was passed in January 2013.

Figure 3.12. Labor market indicators, urban/rural



Source: Staff estimates using LFS, 2006–2015

Figure 3.13. Daily wage, urban/rural



Source: Staff estimates using LFS, 2006–2015

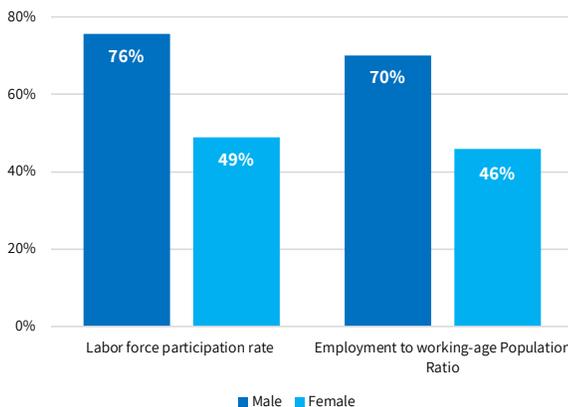
Variation by Area

The labor market environment differs in rural and urban areas. Urban areas are characterized by a higher active population rate, a lower participation rate, a lower employment rate, a higher unemployment rate, a lower underemployment rate, and a higher daily wage (Figure 3.12). The difference in unemployment and underemployment between urban and rural areas is large. Unemployment in urban areas is 50 percent higher than that in rural areas (9 percent versus 6 percent), while underemployment in rural areas is 50 percent higher than that in urban areas (24 percent versus 16 percent). While the national wage average is ₱263 (2006 pesos), it is ₱315 in urban areas and ₱210 in rural areas (Figure 3.13).

Variation by Gender

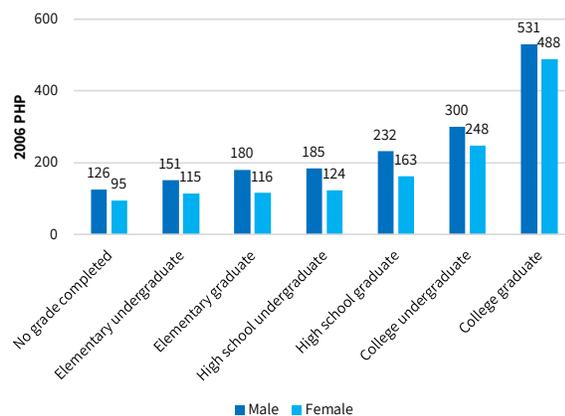
Women have much lower labor participation and lower employment ratios than men (Figure 3.14). Three out of four men of working-age participate in the labor market, but only 50 percent of women do. The ratio of employment to working-age population is nearly 60 percent—but it is about 70 percent for men and 45 percent for women. Among those employed with positive wages, women have lower wages for any given education level (Figure 3.15). For workers with less than a tertiary education, female wages are only 65 percent to 80 percent of those for males with similar education; for workers with a tertiary education, the wage gap between female and male narrows to 92 percent.

Figure 3.14. Labor market participation and employment ratios



Source: Staff estimates using LFS, 2006–2015

Figure 3.15. Daily earnings, 2006–2015



Source: Staff estimates using LFS, 2006–2015

Education and Labor Market Status

The educational level of an individual is closely associated with his or her labor market status. While unemployment is lower for individuals with the least education—the poor cannot afford to be idle and not working—those with higher educational attainment have significantly higher wages than those with little or no education (Table 3.3). The share of college-educated individuals who are underemployed is only half that of those with lower educational attainment, and their daily wage is nearly 250 percent of those with a high school education, over three times of those with an elementary school education, and over four times of those with no schooling.

A recent World Bank report suggests that there is a mismatch between supply and demand of skills, including traditional technical and cognitive skills as well as socioemotional skills, in the labor market. About one-third of employers reported having unfilled vacancies because of a shortage of applicants with the necessary skills. The mismatch is more acute for workers in skill-intensive occupations. Workers with completed tertiary education spend an average of 5.5 weeks searching for a job, far longer

than the average time spent by workers with lower education levels. About 80 percent of unemployed workers have completed secondary education or higher. The skill mismatch can also be an indication of the poor quality of education (World Bank 2017b).

The education level of the labor force varies widely by region and gender. The labor force in NCR stands out as the most educated (Figure 3.16). For example, 27 percent of the labor force in NCR had completed a tertiary education, and only 10 percent have an elementary school education or less. This can be compared to the two least-educated regions, ARMM and V. In ARMM, only 8 percent of the labor force had completed a tertiary education, and 56 percent had an elementary school education or less; in V, these numbers are 12 percent and 36 percent. The female labor force is more educated—32 percent had completed a tertiary education, which is double the rate for males.

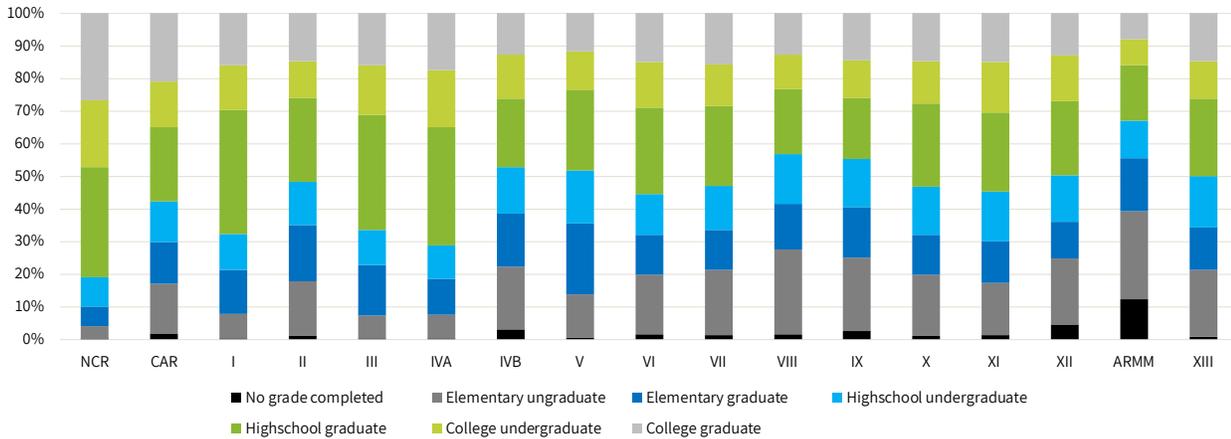
Employment growth came at the expense of the lack of real wage growth in the Philippines. The marginal wage increase of only 4 percent over 2006–2015 masks significant differences between some subgroups. Overall, workers with no schooling saw a 16 percent wage increase, while those with a high school education experienced a 2 percent decline, and those with tertiary education a 2 percent

Table 3.3. Employment, unemployment, and daily earnings, by educational attainment

| Region | Employment-to-working-age population ratio | Underemployment rate | Unemployment rate | Daily wage (2006 pesos) |
|----------------------|--|----------------------|-------------------|-------------------------|
| No schooling | 52% | 22% | 3% | 115 |
| Some elementary | 68% | 27% | 3% | 141 |
| Elementary graduate | 66% | 24% | 4% | 158 |
| Some high school | 46% | 24% | 7% | 166 |
| High school graduate | 60% | 20% | 9% | 206 |
| Some college | 47% | 17% | 10% | 280 |
| College graduate | 67% | 11% | 8% | 506 |

Source: Staff estimates using various rounds of LFS

Figure 3.16. Share of labor force with each grade completed by region



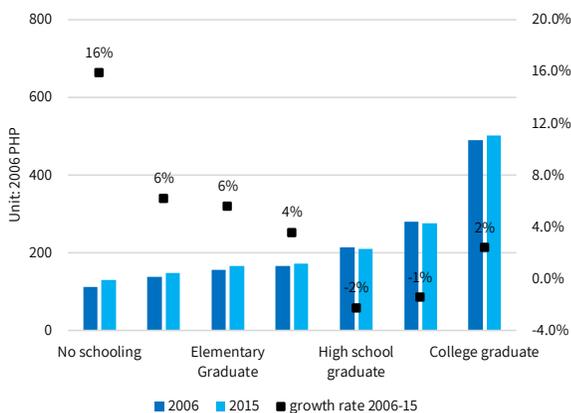
Source: Staff estimates using LFS-FIES, 2015

increase (Figure 3.17).³⁰ The U-shape relation of wage growth rate is similar across wage levels.³¹ The poorest two quintiles registered a 5–7 percent wage increase, the third and fourth quintiles a 3 percent decline, and the richest quintile a 5 percent increase (Figure 3.18).

Interestingly, the pattern of wage growth changed over time. After 2012, it became more inclusive. Workers with lower wages have had greater increases

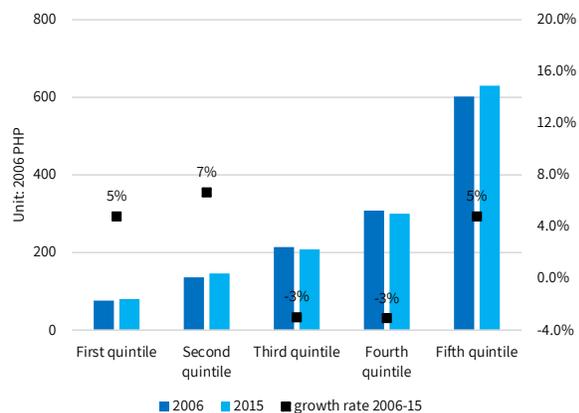
in recent years (Figure 3.19 and Figure 3.20). In the period 2006–2012, wage growth was negative for all but the richest quintile, but over 2012–2015, the pattern of wage growth was the opposite. The poorest two quintiles registered 12–13 percent wage growth, while the richest quintile had a 1 percent decline. The patterns are similar across education groups—the less educated had higher wage increases in more recent years (Figure 3.21 and Figure 3.22). The shift of employment out of agriculture and the increase in the

Figure 3.17. Wage growth by education level



Source: Staff estimates using LFS, 2006–2015

Figure 3.18. Wage growth by wage quintile

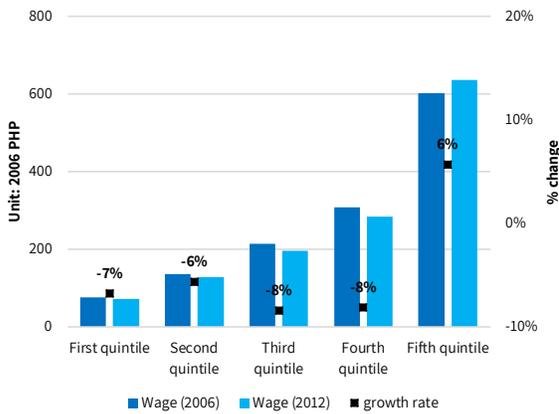


Source: Staff estimates using LFS, 2006–2015

30 Wage increase also varied by industry and occupation. According to the World Bank Employment and Poverty Report (World Bank 2016c), drawing from the “Structure of Earning Survey,” highly skilled workers such as engineers and accountants saw considerable real salary increases, while some low-skilled workers, such as freight handlers, saw their wages fall.

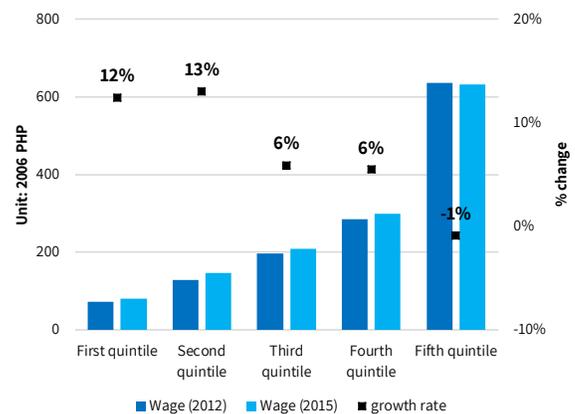
31 As noted earlier, the data in the LFS do not reflect earning of the self-employed. The results are to be interpreted with caution.

Figure 3.19. Real daily wage in 2006–2012 by wage income groups



Source: Staff estimates using LFS, 2006, 2012

Figure 3.20. Real daily wage in 2012–2015 by wage income groups



Source: Staff estimates using LFS, 2006, 2012

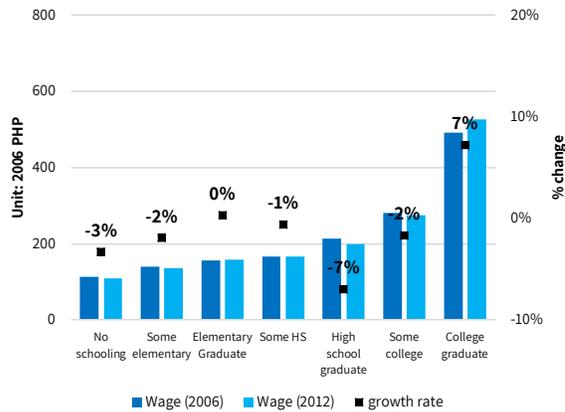
minimum wages have contributed to the increase in the wage at the lower end in recent years. The pattern of wage growth in recent years might have contributed to a more rapid decline in the poverty rate. However, in the long run, the limited wage increase might result in emigration in pursuit of better job opportunities—many Filipino workers are already overseas—and dampen the competitiveness of the economy.

Over time, the labor force has become more educated. The younger cohorts are more educated than the older. The share of the labor force with complete tertiary education has gradually increased

from 14 percent in 2006 to 17 percent in 2015. In 2015, 24 percent of the 25–34 age group had completed a tertiary education, double the share of tertiary education for the 55–64 age group.

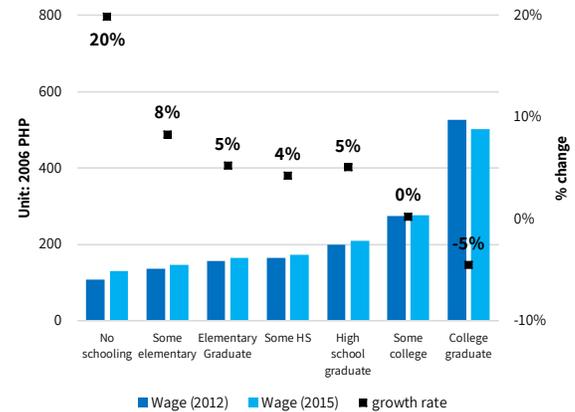
Younger cohorts and more educated workers are more likely to find employment with higher wages. Compared with the older generation, younger workers are more likely to be employed in jobs with higher wages, such as employment in private establishments or government, while some have or work for pay on their own family-operated farm or business. These jobs are typically better paid than

Figure 3.21. Real daily wage in 2006–2012 by education groups



Source: Staff estimates using LFS, 2006, 2012

Figure 3.22. Real daily wage in 2012–2015 by education groups



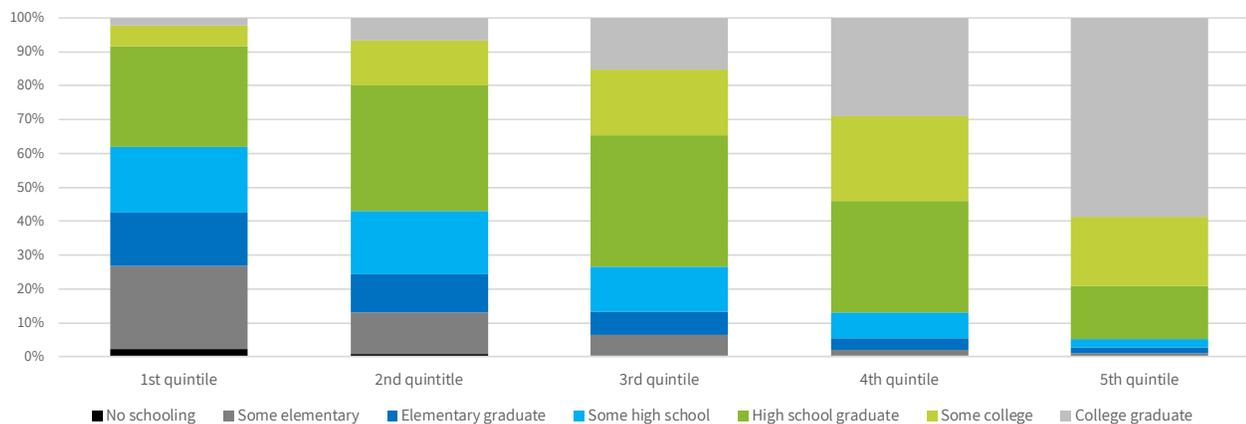
Source: Staff estimates using LFS 2012, 2015



work in private households, work without pay, or self-employment. For example, among the younger workers (ages 15–25), 62 percent were employed in the above-mentioned higher-wage jobs (employed in private establishments or government, have their own family-operated farm or business, or work for pay in their own family-operated farm or business), while only 46 percent of older workers (ages 50–65) were in the higher-wage categories. Similarly, across educational groups, three-quarters of those with no schooling worked in private households, worked without pay, or were self-employed; while for those with tertiary education, 83 percent were employed in jobs with higher wages (in private establishments or government, have their own family-operated farm or business, or work for pay in their own family-operated farm or business). The average wage for the workers with no school was ₱115, but that for workers with a tertiary education was ₱506 (or over four times the wage of the workers with no school).

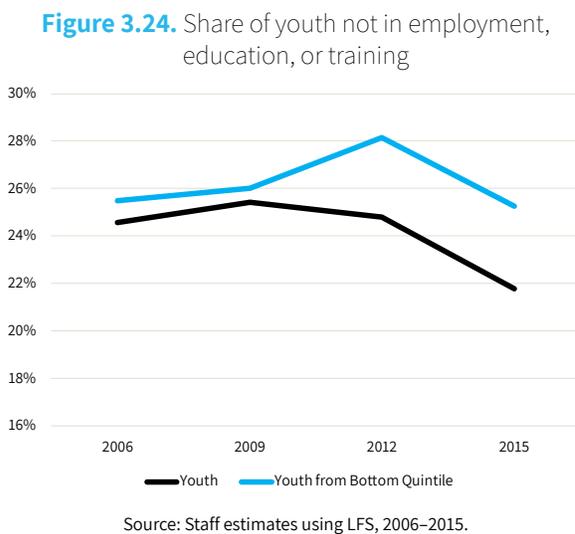
However, individuals in poorer households remained much less educated. Only 2 percent of the labor force in poor households had completed a tertiary education, compared with 20 percent in non-poor households. In particular, youth from poor families remained less educated compared with the rich. In 2015, in the bottom income quintile, some 60 percent of the youth (20–29 years old) did not have full secondary education, compared with only 5 percent of the youth in the richest income quintile (Figure 3.23). Similarly, only 2 percent of the youth from the poorest quintile and 7 percent from the second-poorest quintile have completed tertiary education, compared with nearly 60 percent from the richest quintile. As observed, workers with less than secondary education have significantly lower earning and higher chance of falling into poverty. The large gaps in educational attainment of the youth from the poor and non-poor households might perpetuate their earning ability and income status.

Figure 3.23. Youth (20–29 years old) education level across income groups



Source: Staff estimates using LFS 2015

It is worth noting that nearly one-quarter of the young workers (ages 15–24) are not employed, in school, or in training, (NEET) (Figure 3.24). The ratio is slightly higher for youth from poorer households. This may raise significant challenges in poverty reduction going forward. The increase in the ratio of NEET in 2009–2012 for the youth from the poorest quintile is largely related to the increase in the number of youth not in the labor force. The decline of the ratio of NEET in 2012–2015, for the youth from the poorest households as well as for the population, is likely related to the increase in the number of youth in school.



Minimum Wage in the Philippines

The Government of the Philippines is actively using minimum wage as a policy tool to address in-work poverty. Minimum wage is high relative to the median wage of all workers in most regions in the Philippines, which is set at an amount that would cover the needs of workers and their families and is meant to serve as a social safety net. However, the widespread informality means that the poor neither benefit from the minimum wage policy nor from employment protection legislation (Box 3.1). Only about one-third of workers in private firms are covered by the minimum wage policy. Hence, the potential for minimum wage to reduce in-work poverty in the Philippines is limited. Aligning

Box 3.1. Minimum wage is high in the Philippines, but its coverage is low

The Regional Tripartite Wage and Productivity Boards set regional minimum wages for employees in private establishments and domestic workers in private households. Those wages vary by administrative region as well as by sector and type of establishment. Minimum wage generally is high relative to the median wage based on several measures, both relative to Filipino workers productivity and to minimum wage rates in other countries with similar levels of economic development (World Bank 2013; Betcherman 2014). Nine out of 17 regions have a minimum wage that is higher than the median wage (World Bank 2016). For most of the years in the past decade, minimum wage rates increased consistently at 3.4 percent on average per year.

The minimum wage for private firms is set at an amount that would cover the needs of workers and their families. To account for these needs, the government introduced the two-tier wage system in 2012, whereby the first tier is the mandatory regional wage floor, while the second tier is an amount that is a guide for employers to adjust wages above the floor. The latest reform aimed to set the wage floors close to the poverty thresholds so the minimum wage would serve as a social safety net among wage workers. Consequently, the number of minimum wages below the poverty threshold was greatly reduced. But in fact, informality severely limits the actual coverage of minimum wage policy. Less than half (45 percent) of wage workers in private firms are employed in formal firms (World Bank 2016). Of these wage workers, about 75 percent are paid equal or above the minimum wage. In the informal sector, the minimum wage accounts for about 115 percent of the sector’s average wage, which is so high that it is likely to discourage informal firms from formalizing their activity.

In setting minimum wage, it is advisable to consider wage distribution not only in the formal sector, but also in the informal sector, and set it at a level that does not cut deep into the overall wage distribution. Admittedly, this is a difficult to do in a two-tier labor market, like the one in the Philippines. The wage distributions are very different in the upper, formal tier, and (*continued next page*)

Box 3.1. Minimum wage is high in the Philippines, but its coverage is low (*continued*)

in the lower, informal tier. The minimum wage set based on the wage distribution in the formal sector, as it is currently the case, is too high to be used in the informal sector, where labor productivity is low. On the other hand, if the minimum wage were set based on the wage distribution in the informal sector, it would be too low to be meaningful for formal workers. Some compromise is necessary to strengthen the incentives for employers to hire low-skilled workers formally. An empirically informed discussion among social partners is needed to find a middle ground (World Bank 2013, 2016).

Sources: Betcherman, Gordon (2014), "Labor Market Regulations: What Do We Know about Their Impacts in Developing Countries?," World Bank Policy Research Working Paper 6819. World Bank (2013), "Philippine Development Report: Creating More and Better Jobs," World Bank, Manila. World Bank (2016), "Labor Market Review: Employment and Poverty," World Bank, Manila.

minimum wage with worker productivity could improve the chances of low-skilled workers being hired formally and benefit from minimum wage (see Annex F).

Returns to Education

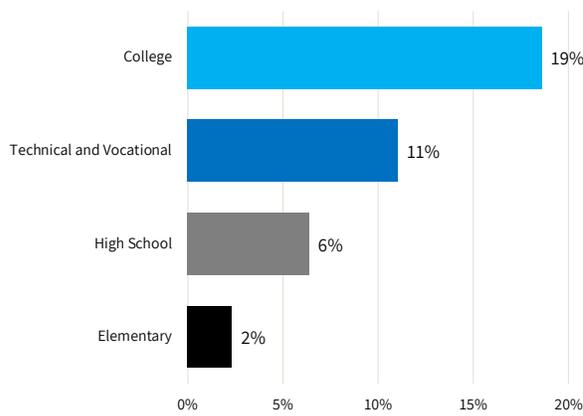
Labor markets in the Philippines offer significant returns to education. Educational attainment plays a key role not only in an individual's ability

to become employed (particularly in wage employment in private establishments, government or government corporations) but also affects his or her wage earnings. This section empirically discusses estimated returns to education using the Mincer (1974) method for education level, gender, rural/urban areas, and island groups, and the role of educational attainment of those who worked for private establishments, worked for government or government corporations, employer in own family-operated farm or business, or worked for pay in own family-operated farm or business in the Philippines (see Annex G for details). As the majority of workers who worked for private households, worked without pay in own family-operated farm or business, or were self-employed without paid employees do not report wage earnings in the LFS, the subsection includes only wage earners in the private establishments and government or government corporations.

Having another year or level of education is strongly associated with better wage employment in private establishments and government or government corporations. Those returns vary by level of education, however. The returns in terms of wages to an additional year of high school are modest: 6 percent per year. But completing high school also opens up the possibility of attending college or completing technical/vocational education (TVET), which has much higher returns (Figure 3.25). On average, each year of college boosts wages



Figure 3.25. Rate of return for education by education level



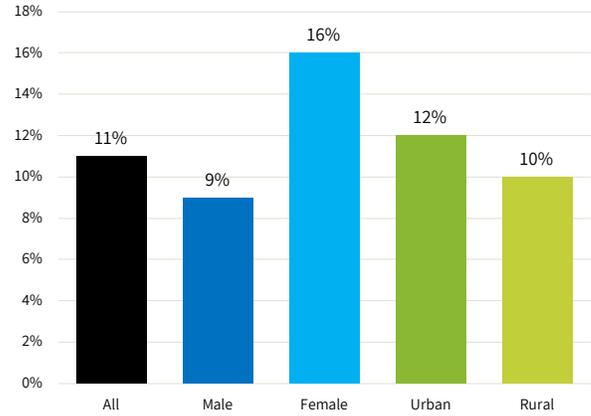
Source: Staff estimation using LFS 2015

by 19 percent, and returns to TVET are 11 percent per year. For example, the rate of return for one additional year of education in completing a college education is about 19 percent, while it is 6 percent for completing a high school education. These premiums particularly favor females, who are, as noted earlier, disadvantaged in the labor market. The gap in the rate of returns between rural and urban areas is not as high as that between genders (Figure 3.26).

Analysis of subsamples of this data provides additional insights. Consistently higher returns accrue for educational attainment among females, but if they do not even complete basic education, the returns are the smallest of all. For females, completion of basic education is a fundamental condition for success in the labor market. Returns are higher for urban areas up to high school completion, but attainment beyond the postsecondary level is more important for rural wage workers. Finally, only slight differences are observed in island groups, but the differences are larger for tertiary education (in favor of Mindanao and Visayas) (Figure 3.27).

The returns to another year of schooling and tertiary education in the Philippines are higher than the East

Figure 3.26. Rate of return for another year of education

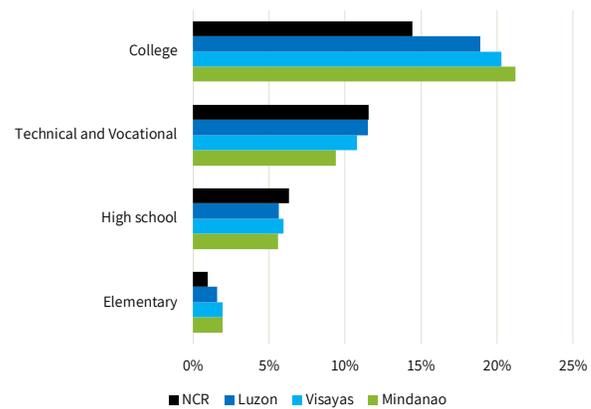


Source: Staff estimation using LFS 2015

Asia average (Figure 3.28). They are slightly lower than those in China and Malaysia, but higher than those in Indonesia and Mongolia.

Educational attainment is also positively associated with wage employment in private establishments and in government or government corporations.³² The probability of wage employment increases by 2.4 percentage points with another year of schooling (Figure 3.29). Again, this favors females and those in rural areas. More significant, completion of

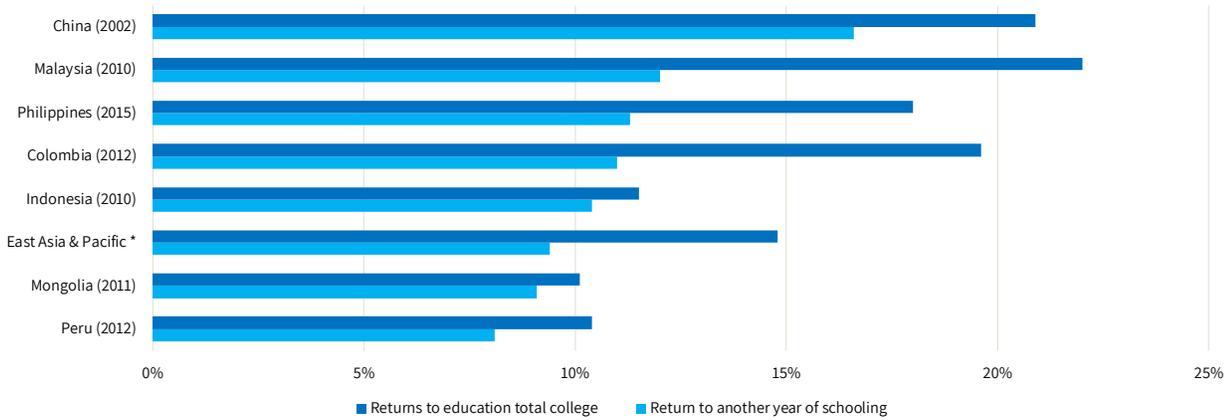
Figure 3.27. Rate of return for education by island group



Source: Staff estimation using LFS 2015

32 The estimation of returns to education omits those who are not wage earners in private establishments, government, or government corporations.

Figure 3.28. Rate of return for education by additional years of schooling

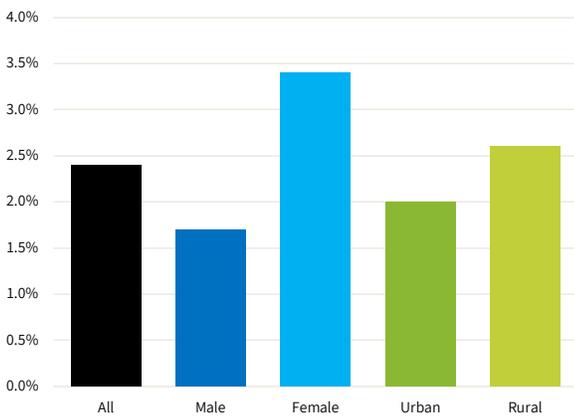


Source: Staff estimation using LFS 2015 and Montenegro, Patrinos, and Anthony (2014)

tertiary education is particularly important for wage employment (Figure 3.30). It may increase the probability of employment by 4 percentage points. The highest marginal increase in wage employment probability is observed among those in rural areas. This may be related to scarcity of workers with a college education and greater competition for wage

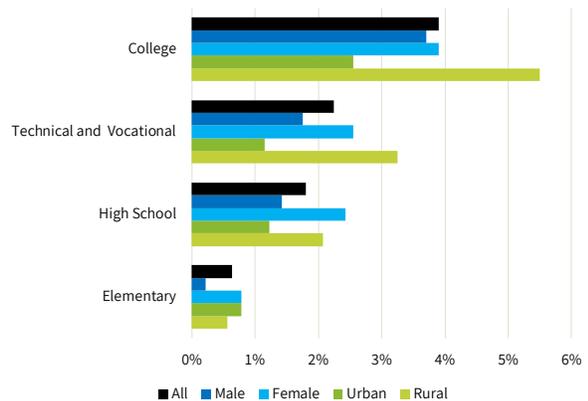
jobs in rural areas in comparison with urban areas. The effect of tertiary education is not significantly different in wage employment for males and females. However, high school completion exhibits a big difference between males and females. It is particularly important for women to at least complete high school if they mean to look for wage jobs.

Figure 3.29. Marginal effects of probability of wage employment with an additional year of schooling



Source: Staff estimation using LFS 2015

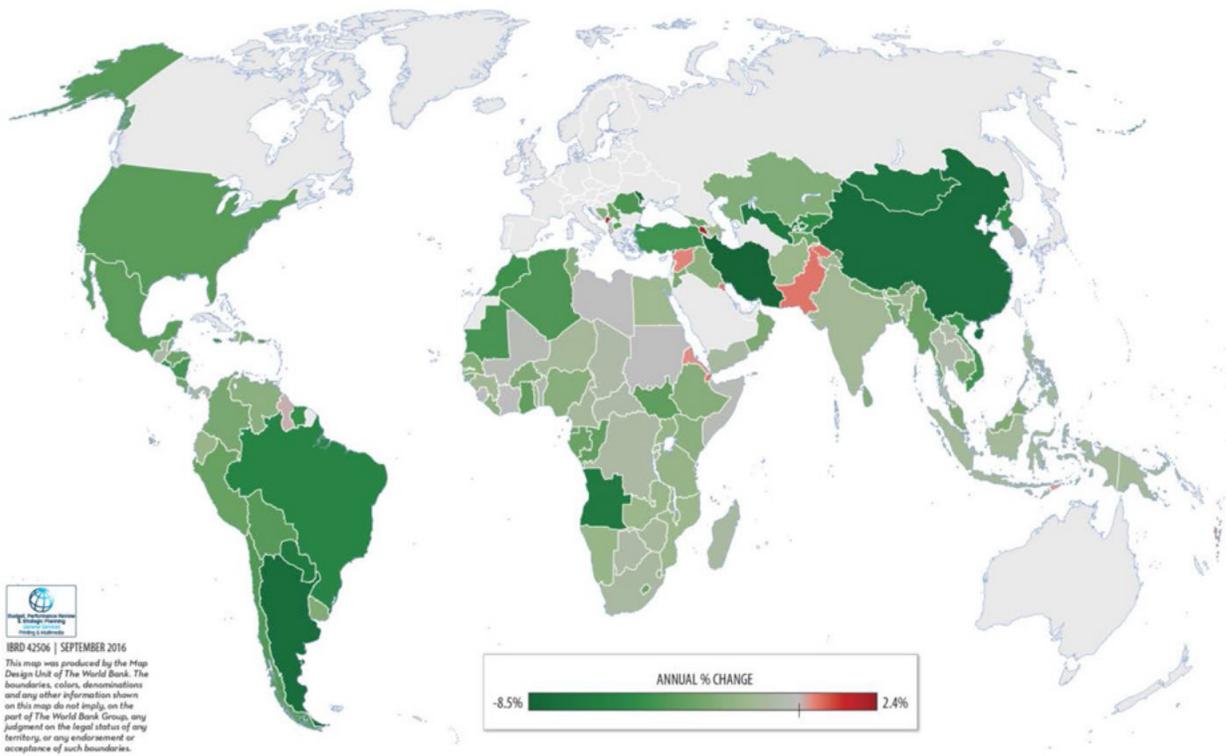
Figure 3.30. Marginal effects of probability of wage employment with an additional year of schooling by education level



Source: Staff estimation using LFS 2015



Map 3.1. Annual percentage reduction or increase in stunting rate, 1995–2015





CHAPTER FOUR

Interplay Between Income and Human Capital Accumulation

Disparities in Access and Quality of Education and Health Care
Vicious Cycle of Inequality of Income and Inequality of Education
Vicious Cycle of Inequality of Income and Inequality of Health Care
Vicious Cycle of Inequality from the Start of Life

Interplay Between Income and Human Capital Accumulation

- **The wide inequality** in access and quality of education and health care services has led to inequality in human capital outcomes across regions and socioeconomic groups. This, in turn, has led to inequality in income. The vicious cycle of inequality of opportunity and inequality of outcomes are mutually reinforcing.
- **Education public spending** has increased in recent years. Access to basic education (K–12) has improved and is now broadly the same as countries at a similar income level. Despite recent progress in basic education, including the rollout of universal kindergarten and senior high school, two principal challenges remain: learning remains limited and secondary school attendance and completion rates are low among the poor.
- **Increasing access to basic education**, particularly the dropout rate beyond elementary among the poor, remains a challenge. Differences in school attainment and learning between children from poor and wealthier families result in differences in their earning power as adults, perpetuating inequality across generations.
- **The total fertility rate (TFR)** in the Philippines, at 3.0 births per woman (recent DHS 2017 showed that TFR has declined to 2.7 births per woman), is among the highest in East Asia and higher than the total wanted fertility rate of 2.2. The TFR is three times as high for women in the poorest quintile as for those in the wealthiest quintile and it has not fallen among the poor in recent years. Unmet needs for family planning are highest in poorer families. Over 80 percent of married women want to either space their births or limit childbearing. Teen pregnancy has increased since 1998, the Philippines ranks third highest in Southeast Asia in terms of adolescent fertility rate with 57 births per 1,000 girls aged 15–19.
- **Pro-poor policies** and health insurance changes introduced in recent years had some positive effects on the poor, especially in increased health service usage. Health outcomes for the poor improved little, however, and the quality of health care services remained uneven. Infant mortality rates improved slightly in the most recent data but are higher for the poorer quintiles compared to the richer quintiles. Household spending on health, for both regular and catastrophic needs has

remained high. The share of the population pushed into poverty by health spending has doubled over the past decade.

- **Rates of child malnutrition** have shown little improvement, and wide gaps remained across regions and income groups. Malnutrition of young children hampers their economic success as adults. The unequal start of lives contributes to an intergenerational cycle of poverty. The returns from investments to reduce malnutrition are extremely high in the Philippines.

This chapter assesses the accumulation of human capital in the Philippines. Specifically, it examines the current state of education and health care access and quality. Using data from the Family Income and Expenditure Survey (FIES), the Demographic and Health Survey (DHS), and other administrative sources, it documents continuing disparities between the poor and non-poor in educational attainment and health care status, and the unequal access and quality of education and health services between the poor and non-poor.

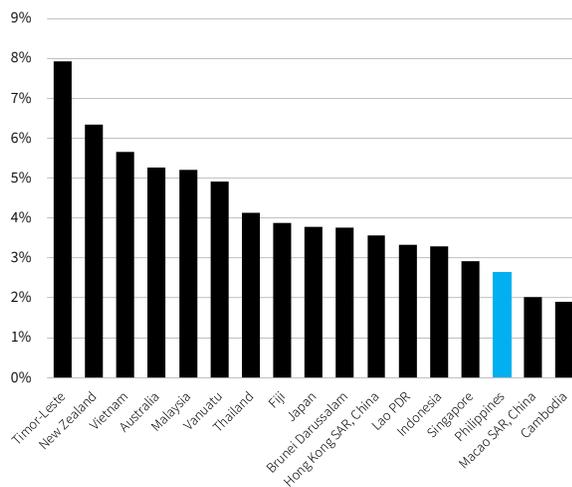
Disparities in Access and Quality of Education and Health Care

Disparities in access and quality of education and health care in the Philippines are large, and the share of public expenditure devoted to education and health remains low despite the increase in public spending in education and health in recent years (Figure 4.1 and Figure 4.2). Household out-of-pocket expenditure accounts for a high share of total expenditure on education and health.³³ This could suggest significant disparities in service access and quality across the different segments of income level.

Education

Access to education has improved for all over the past decade and most markedly in access to elementary school for children from the poorest families. However, wide differences in access to good-quality education remain across socioeconomic groups, genders, and regions. The poor are struggling more than wealthier families to complete a full cycle of basic education. This, in part, accounts for the large disparities in educational attainment levels among Filipinos in the labor force discussed in the previous chapter.

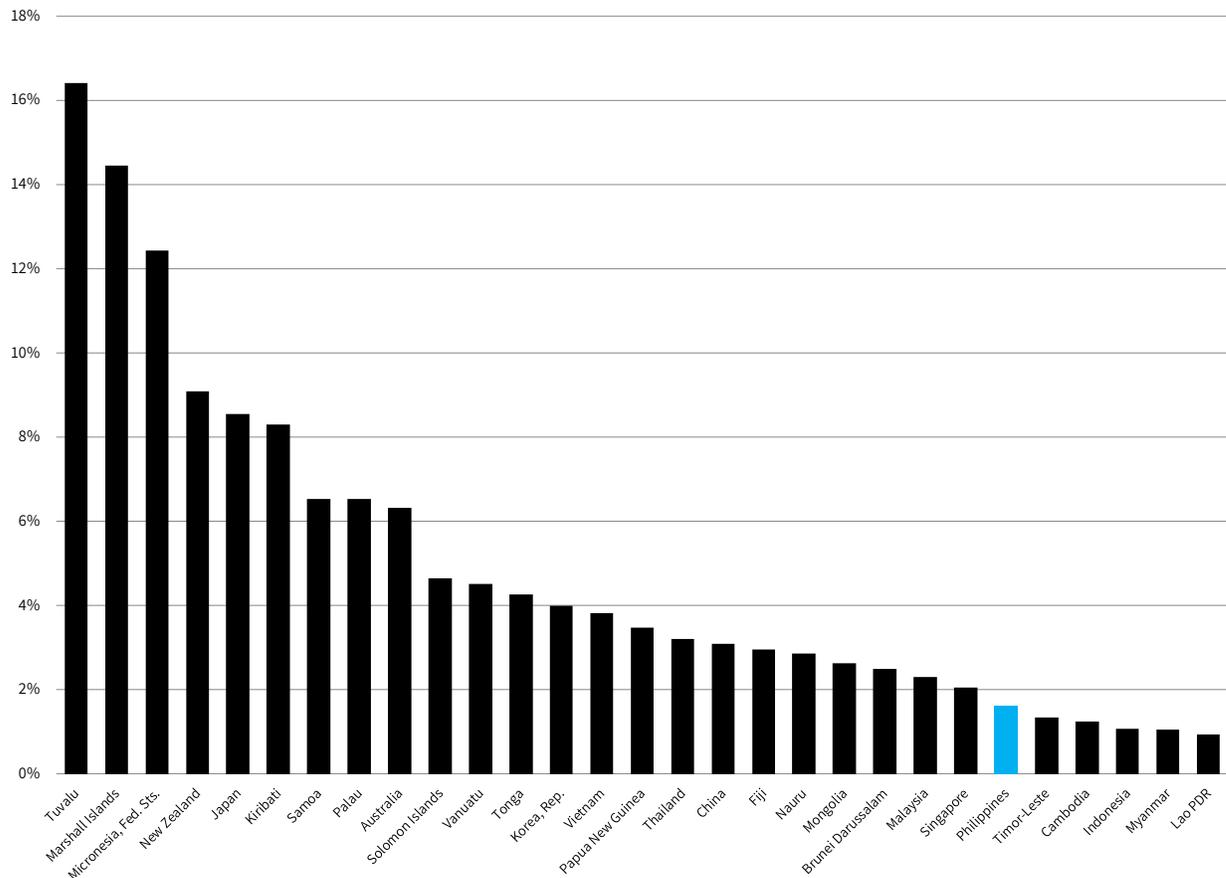
Figure 4.1. Government expenditure on education to GDP ratio, compared with other countries



Source: WDI

³³ Due to lack of data availability, the analysis of this report does not capture the impact of the recent reports, such as the new K-12 and Senior High School program and the recent PhilHealth programs with coverage expansions.

Figure 4.2. Government expenditure on health to GDP ratio, compared with other countries



Source: WDI

EDUCATION ACCESS

Over the past decade, the Philippines has carried out a series of ambitious basic education sector reforms to reduce poverty and increase national competitiveness.³⁴ The reforms set out concrete and ambitious targets for basic education to eliminate teacher and infrastructure deficits. The reform program has been backed up by large increases in public basic education spending. As a result, the learning environment has started to improve

across the country.³⁵ Restructuring the country's educational system has been a tough but strategic move on the government's part to ensure that the system produces competent graduates who can serve as the backbone of a highly skilled and employable workforce.

Primary education continued expanding, putting the country only a few percentage points from achieving universal primary enrollment by 2015. In contrast, participation in secondary education

34 In 2006, the government introduced a package of policy reforms to improve the access and quality of basic education service, called the Basic Education Sector Reform Agenda, aiming to achieve Education for All by 2015. Following the introduction of the Mother-Tongue Based Multilingual Education from kindergarten to grade 3 in 2009 and the Universal Kindergarten Act of 2011, which stipulates that every Filipino child at least five years of age shall attend one year of preparatory education as a prerequisite for grade 1, the Basic Education Act of 2013 introduced reforms that expanded the basic education cycle from 10 years to 13 years by introducing kindergarten as a prerequisite for entry into elementary school, as well as adding senior high schools.

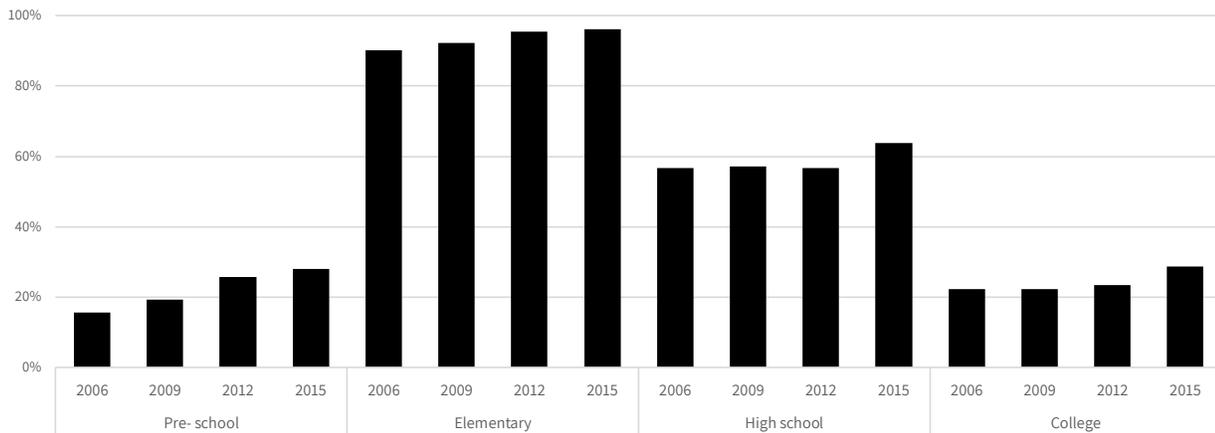
35 The K–12 basic education has been implemented in sequence since 2011, with the first cohort under the new system is completing the final grade (grade 12) in the school year 2017–2018. In tertiary education, the higher education road map introduced strategies to improve efficiency, upgrade quality, and expand access.

remains low, up from 57 percent in 2006 to only 64 percent in 2015. The reality is that one out of three children of junior high school age (12–15 years old) are not attending high school on time. Tertiary enrollment reached 29 percent in 2015, up from 22 percent in 2006 (Figure 4.3) Regional comparators, such as China, Indonesia, Malaysia, and Vietnam, have been more rapidly expanding basic education, and some have far surpassed the Philippines over the past decade.

The overall improvements in school attendance conceal important differences between socioeconomic groups, genders, and regions, which constitute

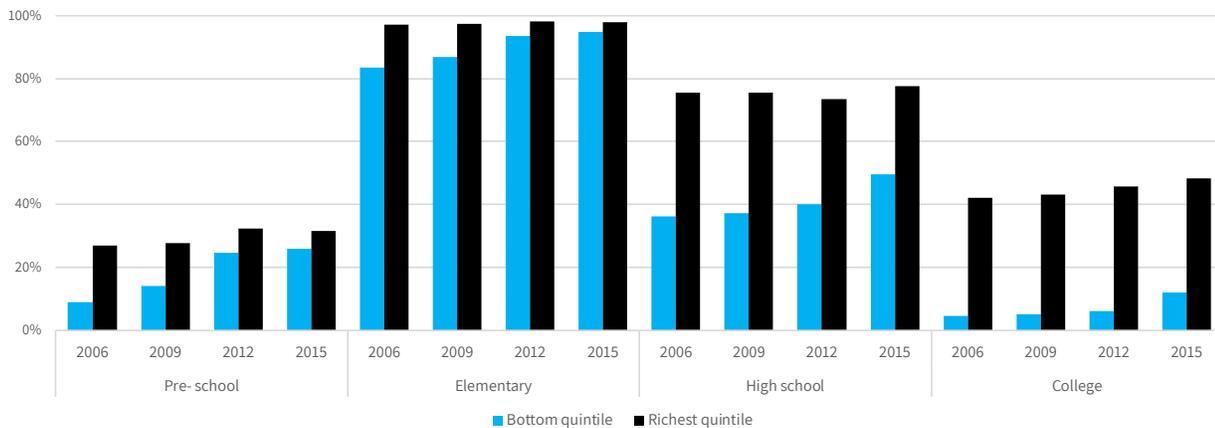
the country’s key prolonged challenge. The gap in education access is widest between the rich and the poor, particularly in tertiary education, but this gap starts to appear substantially at the secondary level (Figure 4.4). The poorest groups have benefited most from the improvement in access to elementary school in recent years. Lower attendance in pre-primary among the poorest means that those children start their primary education at a disadvantage. Even if they complete elementary school, they continue facing significant barriers to continuing secondary and tertiary education. Their key constraints in achieving higher educational levels include the high cost of attending schools and the opportunity costs

Figure 4.3. Net enrollment rate by level, 2006 and 2015 (all)



Source: Merged FIES-LFS, various years

Figure 4.4. Net enrollment rate by level, 2006 and 2015 (poorest and richest quintiles)



Note: There is no data on the current educational level in the LFS data. The approximation assumed that for those who are currently in school, the current educational level is a level higher than the declared highest grade completed.

Source: Merged FIES-LFS, various years



to poor families, in addition to the low quality of learning, which limits the value of staying in school.

School participation also varies by gender and region. While there is no significant difference between the boys and girls until elementary school, disparities (in favor of girls) emerge in secondary and tertiary education. By region, enrollment rates outside of the NCR seem to have been catching up, and the gap between NCR and the rest of the country might have improved, though it remains large (Map 4.1 and Map 4.2). However, the disparities between the NCR and the regions with the lowest rates are notable.

Various interventions to address the supply-side challenge have sought to address the slow enrollment growths in secondary education. Over the last decade, the Department of Education (DepEd) has increased the number of public high schools by 30 percent and improved the availability of textbooks and teachers, and increased support for school operational expenses. Subsidies to private education through the Education Service Contracting (ESC) scheme have been also expanded.³⁶ In 2016, this support for students at

private high school was extended to new grade 11 senior high school students.³⁷

Kindergarten enrollment (attended by children age five) doubled in absolute terms between 2006 and 2015—over 50 percent of the 2.2 million five year olds attended kindergarten or some other early childhood education and development program in 2015. However, policy coordination for early childhood education before age five remained weak. Participation to any form of pre-primary education among children between three and five remained around 30 percent, which is among the lowest in the East Asia Region and suggests potential needs for further expansion.

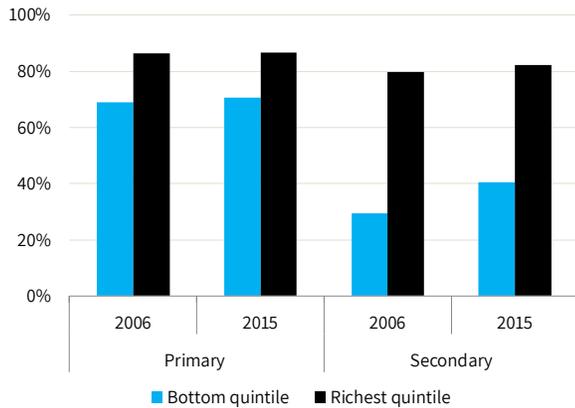
EDUCATIONAL COMPLETION

Despite the overall progress in basic education access, the dropout rate beyond elementary, particularly among the poor, remains a challenge. In 2015, 82 percent of young adults from the richest quintile had attained at least elementary education, compared with 67 percent from the poorest quintile. The gaps for secondary education were much

³⁶ The support for private junior high schools was effective, mainly to alleviate the congestion of urban public high schools and to provide choices for students who wish to study in private junior high schools. In by 2016, 70 percent of private junior high school students (accounting for 17 percent of all junior high school students) were ESC grantees.

³⁷ In June 2016, new senior high schools (SHS) opened their gates to 1.5 million new grade 11 students nationally for the first time. Of 1.5 million students, about a half benefited from the SHS voucher program, which covers tuition fees of students attending private high schools, since there were not sufficient spaces in the public system to accommodate the influx of grade 11 students.

Figure 4.5. Educational attainment rate among 22–24 year olds by income quintiles, 2006 and 2015

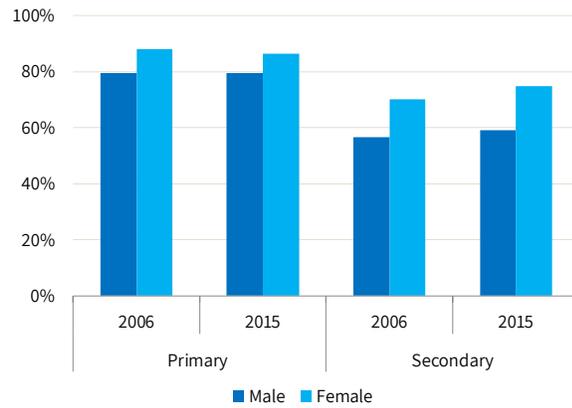


Source: Merged FIES-LFS various years

wider. In 2015, 81 percent of young adults from the richest quintile had attained secondary education, compared with 41 percent from the poorest quintile (Figure 4.5). By gender, female students have been able to complete elementary and high school more often than their male counterparts (Figure 4.6).

Children from households in the bottom income quintile face the highest dropout incidence. The primary reason for dropout, cited in surveys by about half of boys and a third of girls in the poorest quintile who have dropped out, is “lack

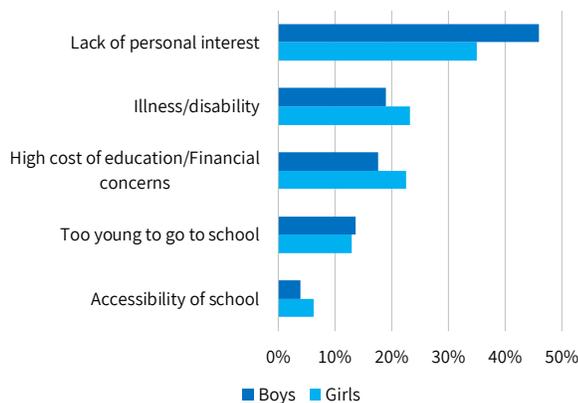
Figure 4.6. Educational attainment rate among 22–24 year olds by gender, 2006 and 2015



Source: Merged FIES-LFS various years

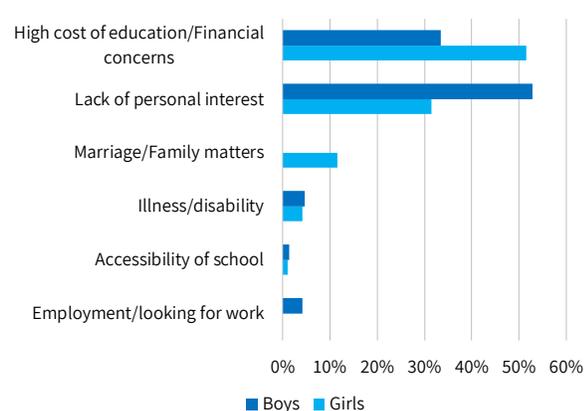
of personal interest in education” (Figure 4.7 and Figure 4.8). This finding could reflect a perception by students and parents that the levels of learning are limited. The reason may also be related to the high opportunity costs and uncertainty of economic returns to education (or the poor information about such returns), particularly among boys (Orbeta 2010). Also, in many cases, poor children need to help meet the immediate welfare needs of their families, which prevents them from staying in school.

Figure 4.7. Reasons for not attending elementary school among 6–11 year olds in the poorest quintile, 2014



Source: APIS 2014

Figure 4.8. Reasons for not attending high school among 12–15 year olds in the poorest quintile, 2014



Source: APIS 2014



Students' poor health conditions also appear concerning among children of elementary school age and is one of the major reasons for dropouts. About 20 percent of boys and girls who are not attending elementary schools cited health or disability conditions. One out of every three children under five show stunted growth; one out five is underweight.³⁸ The DepEd has carried out a school-based feeding program since 2010 to help malnourished children to keep their focus in classroom, which reaches about 1.9 million student beneficiaries in the school year 2016–17. However, a recent independent impact evaluation revealed mixed results about the effectiveness and sustainability of the program.³⁹

Financial concerns and the high cost of education are also significant issues for those in the bottom income quintile, particularly for attending high school (Figure 4.8). About a half of the girls who are not attending high schools said that financial concerns were the most significant reason, compared to about a third of male dropouts (Albert 2016).

Health Care

Health access has been improving in recent years, particularly among the poor, thanks to the expansion of health insurance.⁴⁰ Yet, health outcomes improved little, and out-of-pocket expenditure increased. The Philippines was not able to meet the MDG targets for child and maternal health in 2015. Immunization coverage declined. Wide differences in access to good-quality health care remain across socioeconomic groups, genders, and regions.

HEALTH CARE ACCESS

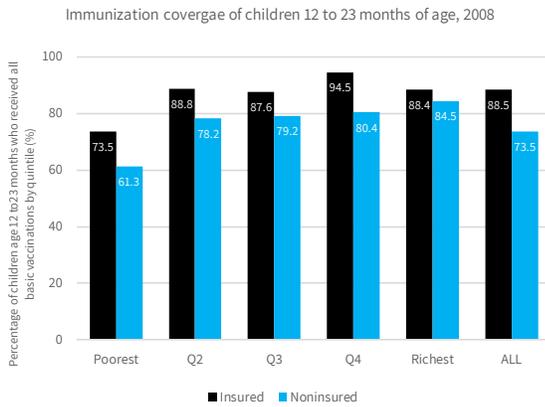
The Philippines faced constraints in providing access to affordable and quality health care, especially for its poorer populations. Immunization coverage worsened slightly over the years (Figure 4.9). Use of health services for sick children across all income groups has gone up but remained low. Only 50 percent of children are taken to a provider when sick with fever. Few may receive appropriate care on time. Financial constraint remained the top reason for households not following through on advice to

38 National Nutrition Council.

39 Tabunda, et.al. 2016

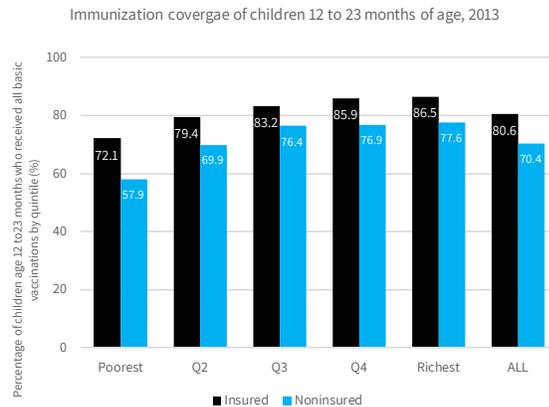
40 The presentation of access to health care and health outcomes includes the insured and uninsured separately in a systematic manner to show the difference between the two.

Figure 4.9. Immunization coverage of children, 2008 and 2013



Note: Includes BCG, measles, and three doses each of DPT and polio.

Source: DHS (2008)



Note: Includes BCG, measles, and three doses each of DPT and polio.

Source: DHS (2013)

seek inpatient care. Household income remains the major driver of inequities in the use of maternal and child health services.

The inclusion of outpatient benefits within the Philippine Health Insurance Corporation (PhilHealth) made it more attractive for the insured poor to access outpatient care with no copayments. The insured are more likely to use health services when their children are sick, and the insured poor were more likely to get medicines (such as antibiotics) than the uninsured poor. The gaps in access to services between insured and uninsured have widened. However, non-medical care remains a financial constraint, as does travel distance to facilities.

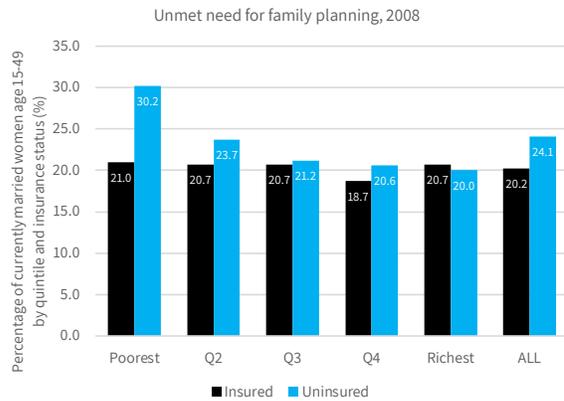
These inequities remain, despite the recent national government subsidy for the health insurance of the poor (Paredes 2016). According to a recent survey covering 21 communities with some of the poorest households in the Philippines, access to and quality of health care services were uneven. In urban and peri-urban areas, while many poor households can access routine care without charge, they reported a reluctance to seek treatment and difficulties obtaining required medicines. In remote areas, poor households reported that their access is constrained by the poor quality of local facilities, transportation costs, and the costs of treatment and medicine (World Bank 2013b).

Over 80 percent of married women in the Philippines want to either space their births or limit childbearing (DHS 2013), indicating sizable unmet need. These unmet needs in reproductive health are higher among the poorest quintiles, particularly among the uninsured. Although uptake remains low, the insured poor are more likely to access family planning services than the uninsured poor. Overall, unmet need was 18 percent for all, and 21 percent among the poorest quintile in 2013 (Figure 4.10). Maternal mortality is significant, so birth spacing can result in improved maternal health. Overall, family planning use is low. Having a choice of family planning can be beneficial to the population. However, currently, usage of family planning is supported only in a limited way through the PhilHealth benefits package.

While access to antenatal care (ANC) services⁴¹ has improved, poorer pregnant women are still less likely to get those services (Figure 4.11). When they do, they tend to receive services of poorer quality than the better-off (Figure 4.12). For this study, quality has been defined as having five services delivered at ANC clinics: weight measurement, blood pressure measurement, height measurement, urine sampling, and blood sampling. Using a crude quality index that captures these services and giving each equal weight, the poorer households seemed to have poorer quality of services compared to those in

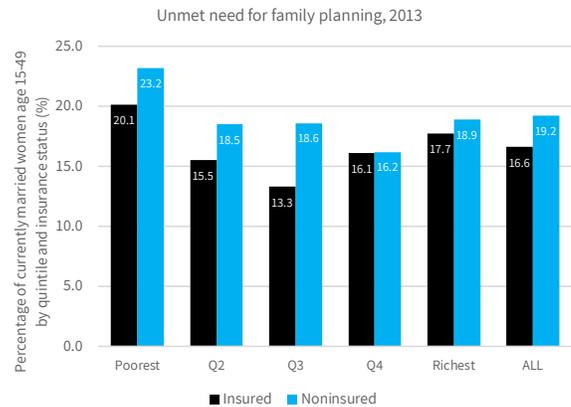
41 ANC was a priority program with PhilHealth, and its coverage was almost universal.

Figure 4.10. Unmet needs among reproductive-age women, 2008 and 2013



Note: Unmet need for family planning refers to fertile women who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting) but who are not using contraception.

Source: DHS (2008)



Note: Unmet need for family planning refers to fertile women who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting) but who are not using contraception.

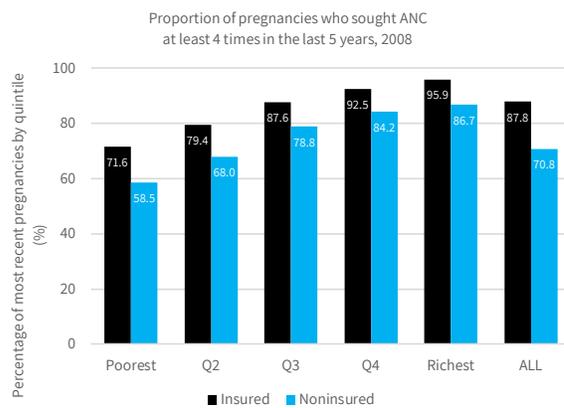
Source: DHS (2013)

the richer quintiles. A survey regarding the service readiness of rural health units (RHUs) found relative readiness of RHUs for the delivery of ANC services,⁴² but the poorer local government units (LGUs)⁴³ performed less well, which may explain why poorer women get ANC of lesser quality. The poor quality of services may hinder the achievement of the desired outcomes for the poor.

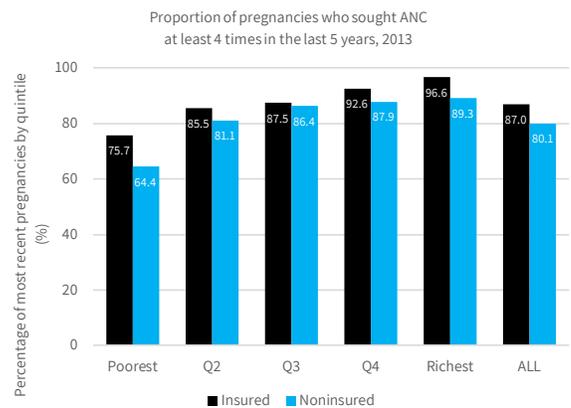
The proportions of skilled birth attendance have improved over time, but wide gaps remained across

income groups (Figure 4.13). Fewer than 50 percent of deliveries in the poorest quintile were assisted by skilled attendants in both survey years (2008 and 2013), while the shares among the top three quintiles are more than 70 percent (more than 80 percent in 2013). The gaps in skilled birth attendance between the insured and uninsured narrowed in 2013, especially for mothers in the second quintile, where there is a higher percentage of uninsured mothers. This narrowing of the gap is also evident in the national average.

Figure 4.11. Use of health facilities for antenatal care, by quintile and insurance status, 2008 and 2013



Source: DHS (2008)

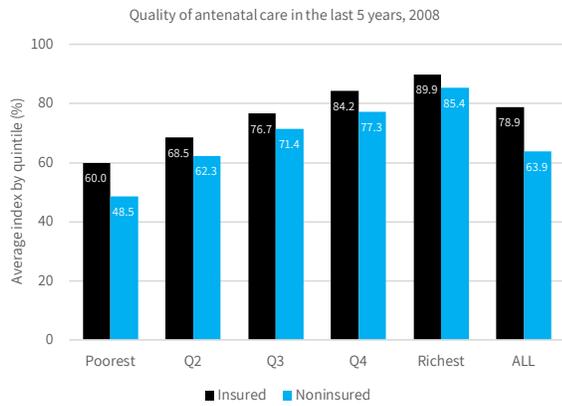


Source: DHS (2013)

42 Rural health units (RHUs) are primary care facilities run by local government units (LGUs). Among the services they render are antenatal care, whether or not the RHU is accredited by PhilHealth as a maternal and child health package (MCP) provider.

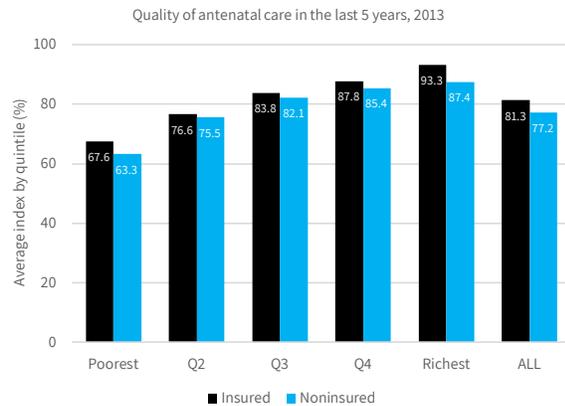
43 LGUs are in six classes according to income status of the LGU.

Figure 4.12. Quality of antenatal care, 2008 and 2013



Note: Quality of antenatal care includes five services: weight measured, height measured, blood pressure measured, urine sampled, and blood sampled. Index is equally weighted among the five, with the perfect score of 100 for all services done, and 0 if none of the services were done. Includes only most recent pregnancies with at least one ANC visit.

Source: DHS (2008)



Note: Quality of antenatal care includes five services: weight measured, height measured, blood pressure measured, urine sampled, and blood sampled. Index is equally weighted among the five, with the perfect score of 100 for all services done, and 0 if none of the services were done. Includes only most recent pregnancies with at least one ANC visit.

Source: DHS (2013)

HEALTH OUTCOMES

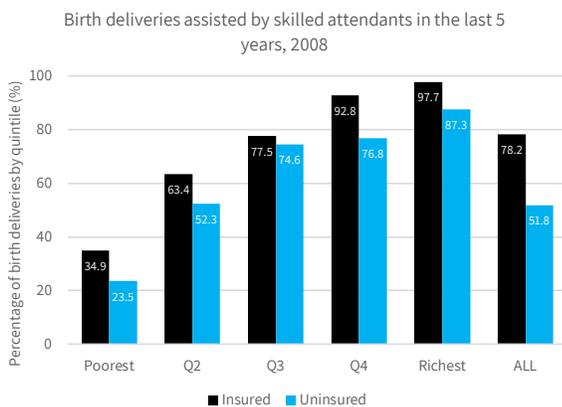
There is significant inequity by income in health outcomes. The outcomes of the poor are worse, both over time and by quintiles. This is particularly notable for the maternal and child health issues covered by MDGs 4 and 5, which the Philippines did not meet by 2015.

The salient indicators for child health have improved slightly over the past decade (Figure 4.14). Both the infant mortality rate and the under-5 child mortality rate remained high, particularly for the poorer segment of the population. In addition, data

from the Philippine DHS show self-reported illness is higher for poor children and adults than for the non-poor.

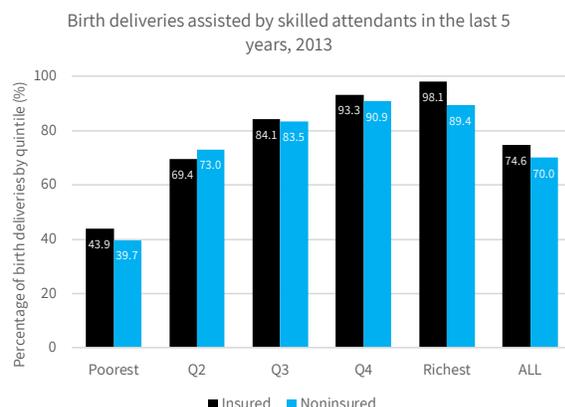
The total fertility rate remains high in the Philippines, driven by multiple factors from the supply and demand sides (Box 4.1). TFR is much higher among poorer households than among the non-poor (Figure 4.15). TFR has not budged among the lowest quintile in the past five years (2008 to 2013); it is also at least three times higher than in the upper quintile.

Figure 4.13. Skilled birth attendance, 2008 and 2013



Note: Skilled birth attendants include doctors, nurses, and midwives.

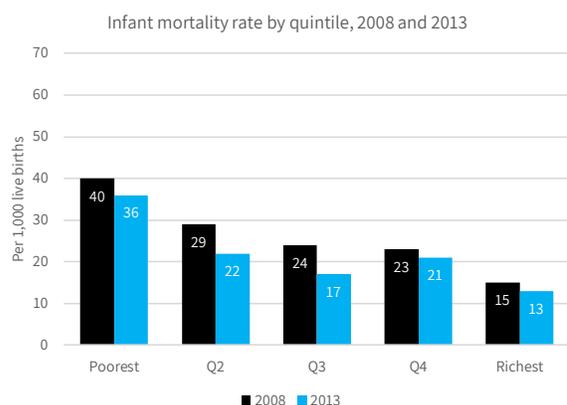
Source: DHS (2008)



Note: Skilled birth attendants include doctors, nurses, and midwives.

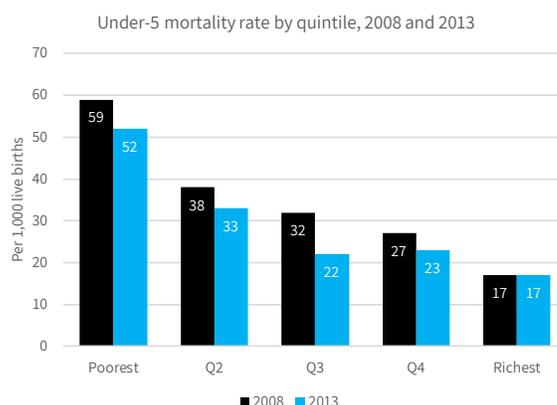
Source: DHS (2013)

Figure 4.14. Infant mortality and under-five mortality rates



Note: Mortality rates are calculated for the 10-year period preceding each survey year.

Source: DHS 2008 and 2013



Note: Mortality rates are calculated for the 10-year period preceding each survey year.

Source: DHS 2008 and 2013

There are significant unmet needs for birth control and birth spacing. While the TFR, in 2013, is about three children per woman, the total wanted fertility rate is estimated to be 2.2 births per woman, or 27 percent lower than the actual TFR (PSA and ICF International 2014). The high TFR translates into a high child dependency ratio, and therefore to low household income per capita for a given amount of income from the breadwinner, and it remained a key constraint to poverty reduction.

The Philippines ranks high in Asia in terms of adolescent fertility rate (Figure 4.16). One in ten

girls aged 15–19 years are either pregnant or already has a baby. While overall fertility rate has declined over time, adolescent fertility rate increased from 46 in 1998 to 57 in 2013 (PSA 2014). An increase in adolescent pregnancy means more early high school dropouts, as well as higher infant and maternal mortality. Parents with many children, especially parents who themselves are still adolescent, have more trouble in providing adequately for their children, who are more likely to be malnourished, have worse health outcomes, and not enroll in school or dropout early, which perpetuates the cycle of poverty.

Figure 4.15. Total fertility rates

Total fertility rates of women age 15–49 by quintile, 2008 and 2013



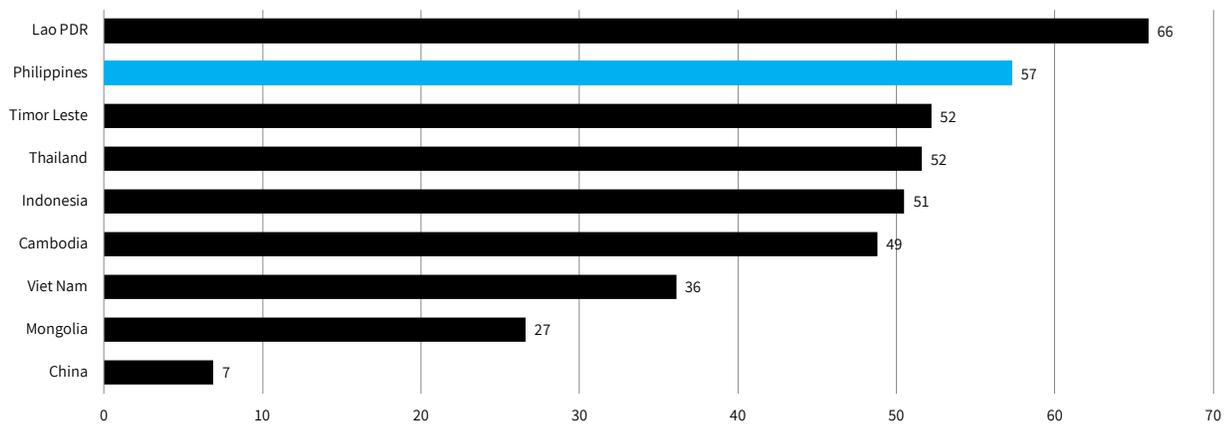
Note: Fertility rates are calculated for the three years preceding each survey year.

Source: DHS 2008 and 2013

Vicious Cycle of Inequality of Income and Inequality of Education

Increased public education spending has led to improvements in the access to education, but the amount the country spends is still inadequate, and spending needs to be more efficient and effective. Thus far, increased spending has led to only modest improvements in learning outcomes, with lingering disparities in learning. On the demand side,

Figure 4.16. Adolescent fertility rates in EAP countries



Source: The numbers are estimates for 2010–2015. United Nations Population Division, World Population Prospects: 2017 Revision.

Box 4.1. Determinants of fertility rate

Fertility rate is affected by many factors. For example, improved child survival rates can result in fewer births. Improved access to reproductive health services and commodities can improve maternal health and help households voluntarily reduce births (Dumas and Lefranc 2016). Improved access to education and employment can lead to delays in age at marriages and childbirths.

Advocates of speeding the demographic transition emphasize the need to speed up the voluntary reduction in fertility rates. This can be done through public policies that assist households, particularly poorer households, to achieve such a reduction. Lessons from other East Asian countries point to three critical factors in transitioning from high to low fertility levels: health services, family planning, and education. Hence raising school enrollments and secondary school completion rates by the poor and improving access to quality health services and family planning are essential.

While the Philippines has a reproductive health law, it has not been fully implemented, and an update of the strategy and implementation is much needed. The most recent annual review of the law recommended follow-through on measures to address the unmet need for modern and responsible family planning and the high level of adolescent pregnancy to help informed parents to make their own choices and achieve their desired family size. Abrigo et al. (2017) estimated the economic gains from a full implementation of the RPRH law and suggested helping couples achieve the desired number of children can potentially have substantial economic benefits in terms of more rapid economic growth.

The top priority is to expand access to a wide range of modern and responsible family planning, especially for the poor. Among the other recommendations in the annual review is the need to ensure that budget allocations for family planning at the central level should be linked to actual demand for family planning services at the local level. The report also calls for improving commodity logistics to avoid stock outages in rural health centers, creating a national-level family planning communications strategy, and reaching women with unmet needs through clinics that can provide services beyond the operating hours of government facilities, and ensuring that health centers have dedicated and trained family planning focal points.

Reducing the incidence of adolescent pregnancy requires measures beyond expanding access to family planning. The reproductive health law mandated the creation of a curriculum for Comprehensive Sexuality Education (CSE). While the CSE has been integrated into the K–12 curriculum, implementation has lagged. (*continued next page*)

Box 4.1. Determinants of fertility rate (*continued*)

In addition, the annual report recommends steps to provide adolescents with reproductive health services and information on the risk associated with early pregnancies. Foremost among these is ensuring that teachers are trained in CSE. Another obstacle to reducing rates of adolescent pregnancy is the legal restrictions on access to family planning services without parental consent. The annual report recommends that mechanisms be instituted to ensure that while parental involvement is encouraged, minors are still entitled to specific services even without parental consent.

Sources: Christelle Dumas and Arnaud Lefranc, 2016. "Sex in Marriage Is A Divine Gift? Evidence on the Quantity-Quality Trade-Off from the Manila Contraceptive Ban." *The World Bank Economic Review*, 17 December 2016. lhw055, <https://doi.org/10.1093/wber/lhw055>. Department of Health and the Commission on Population, Philippines, 2017. *The 3rd Report on the Implementation of the Responsible Parenthood and Reproductive Health Act of 2012*, Manila.

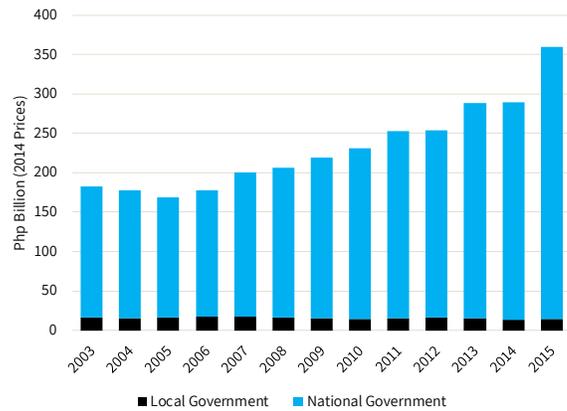
education remains very expensive for the poor. Non-tuition education expenses, which vary little across socioeconomic groups, are a significant burden for the poorest.

Public Education Spending Trends

Compared with spending about 15 years ago, recent public education spending has been favorable. The Enhanced Basic Education Act of 2013 set concrete targets to eliminate teacher and infrastructure deficits for basic education. Public basic education spending increased by 125 percent in real terms between 2005 and 2015 and has risen by 27 percent in 2016 and by 25 percent in 2017. The DepEd receives the largest share of the national budget for education—96 percent of the overall education budget spent (Figure 4.17).

The Philippine government has been spending about 2–3 percent of GDP on education. This is below spending levels in Indonesia, Malaysia, Thailand, and Vietnam. Earlier studies of the country's public education expenditure showed that it would need more than 6 percent of GDP to implement a broad

Figure 4.17. Government basic education spending



Source: World Bank 2016g

package of quality improvements as envisaged by DepEd (World Bank 2016g). On the government education expenditure by education level, the shares of postsecondary technical and vocational education and training and tertiary education spending have been quite limited (Table 4.1).

Efficiency and Effectiveness in Spending

One way to consider the potential distributional impact of government spending is via benefit incidence analysis. Benefit incidence curves provide a graphical representation of the extent to which the beneficiaries of a particular form of government spending are from poorer or wealthier segments of society. This analysis for the Philippines shows that that spending on kindergarten and primary education is pro-poor, that is, it flows disproportionately to poorer households. (This reflects the fact that poorer households have more children on average.) Secondary education spending is also pro-poor but to a lesser extent. The distribution of technical and vocational spending is average. Spending on tertiary education is not pro-poor, due to the low enrollment rates of those from poorer households at this level (Figure 4.18).



The country has embarked on an ambitious education sector reform program, led by the 2013 Basic Education Act, which extended the basic education cycle from 10 to 13 years and backed up those reforms with increased budgets. Between 2010 and 2015, public spending on basic education increased by 60 percent in real terms. The reform program halted a long-term decline in public basic education services. Large increases in school infrastructure and teacher hiring have improved school conditions, as measured by basic indicators

such as the student-teacher ratio and the student-classroom ratio.

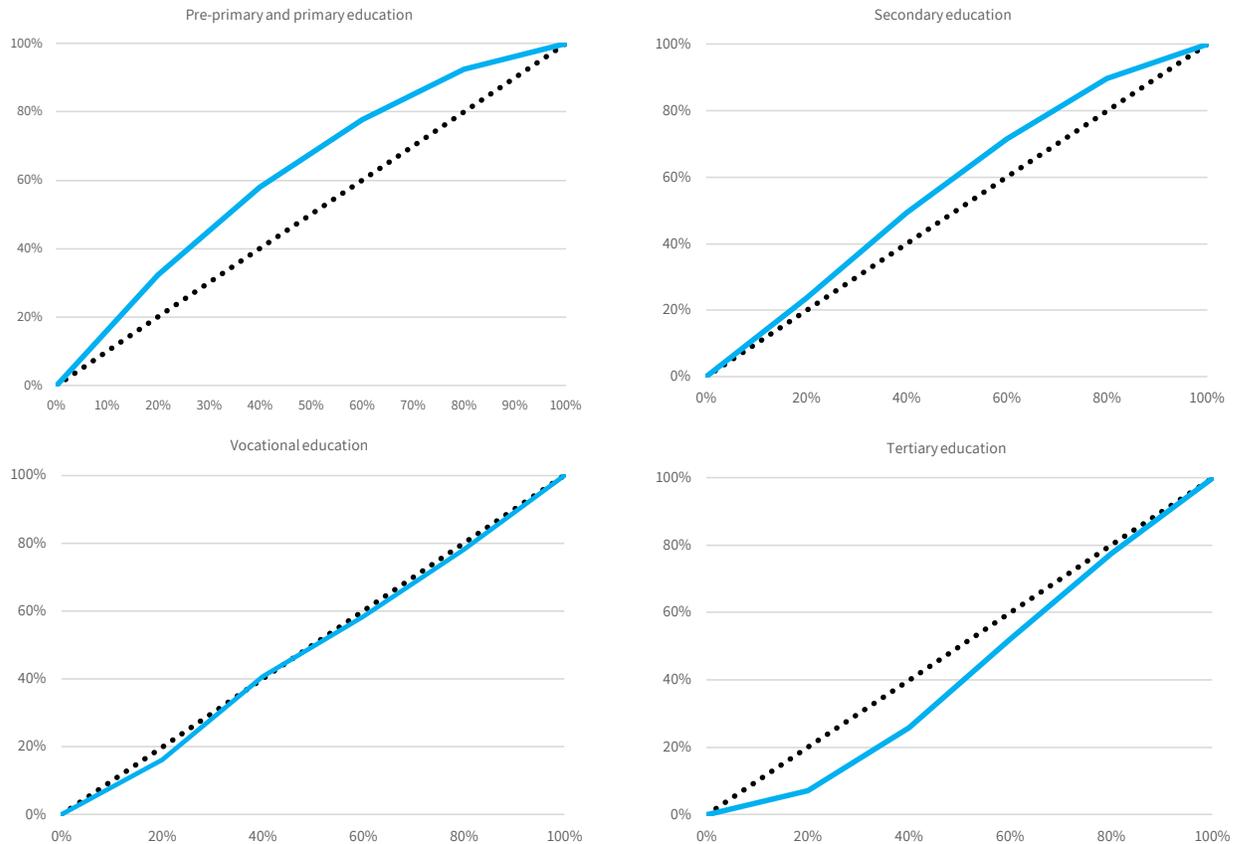
Further improving education in the Philippines will require more effective use of the increased resources available. Previous work has documented that the basic education system has opportunities to improve effectiveness in teacher deployment, infrastructure provision, school-based management, use of maintenance and other operating expenses budgets provided to schools. To these ends, recommendations of an earlier study include

Table 4.1. Public education spending and its share of total government expenditures, 2016

| | ₱ billion | Percentage of total government expenditure |
|--------------------------------------|-----------|--|
| Pre-primary and primary education | 170 | 5.7% |
| Secondary education | 145 | 4.8% |
| Postsecondary non-tertiary education | 62 | ... |
| Tertiary education | 37 | 1.2% |
| Other | 138 | 4.6% |
| Total | 491 | 16.3% |

Source: Source: Department of Budget and Management

Figure 4.18. Public spending and benefit incidence



Source: Merged FIES-LFS various years, Department of Budget and Management.

Note: This plots the cumulative share of benefits from public education (y axis) by education level against the cumulative share of the population ranked by consumption (x axis). The 45-degree line shows neutrality in the distribution. Any deviation from that line suggests that the concentration of benefits from education services varies by income. If the curve is above that line, the poorer groups receive greater share of benefits from government education spending than the richer groups.

improving allocation mechanisms through better planning, giving schools greater authority and simplifying reporting requirements, improving the transparency of fund allocation and resource use, and strengthening the role of school governing councils and parent teacher associations (World Bank 2016). This agenda is capped by the ongoing challenge of implementing the expansion of senior high school. The first graduates of senior high school received their diplomas in 2018, and much work remains as senior high school continues to expand. Fully realizing the benefits of the expanded education cycle can be expected to take some time.

Two major concerns highlighted in the earlier study for basic education emerge from the analysis in this Poverty Assessment. The first is that many students

do not learn. The country's learning outcomes are the weakest among major countries in East Asia, based on the most recent internationally comparable test data (from 2003). The country's education performance has likely improved since then, but the results from National Achievement Tests suggest that improvement has been modest, particularly not at the secondary level. Average scores at the primary level have increased modestly over time but remained roughly flat for secondary school from 2004 up through 2015.

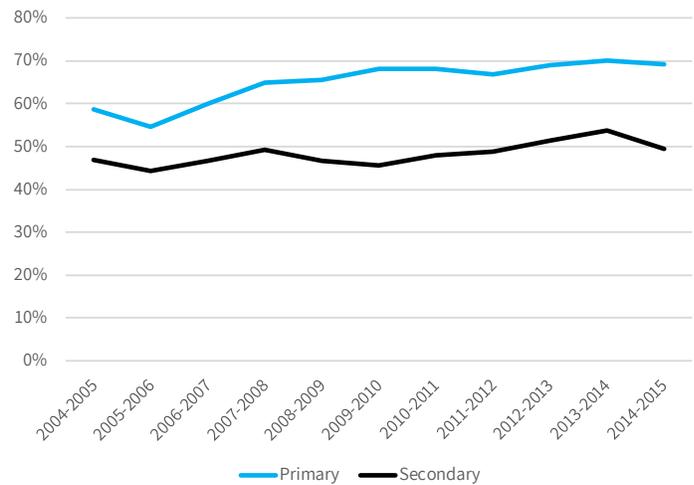
The Philippines has succeeded in raising school attendance and attainment, but some students learn little in school. This experience is similar to that of many countries around the world. The 2018 World Development Report dubs this situation a "learning

crisis” (World Bank 2017j). Schooling without learning is a wasted opportunity and a great injustice: society is failing many of the children who most need an education to succeed in life.

A principal factor for learning is teachers. Earlier work found that teachers in the Philippines do not have the knowledge, support, and materials they need to teach effectively (World Bank 2016). One critical need is to improve the professional development opportunities for teachers, which will raise the quality of teaching and boost student learning. Teacher training in the Philippines could be improved by moving from a mass-training model to one based on a personalized, coaching approach.

The second major concern emerging from the analysis in this report is the persistently high dropout rates for the poor. Only half of children in the poorest quintile enroll in secondary school. These children will face limited job and income opportunities throughout their lives. Financial concerns are a principal reason cited by households for why their children do not attend secondary school. This suggests that increasing the value of the secondary school grants paid through the *Pantawid*

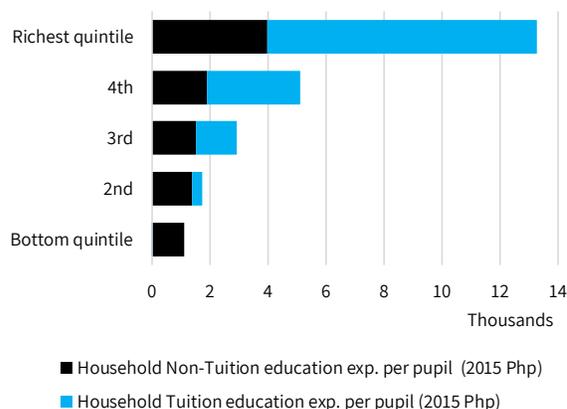
Figure 4.19. National achievement test of primary and secondary education—mean percentage scores



Pamilya could boost enrollment among the poor. For a significant number of poor girls, marriage or family matters are often cited as the reason they do not attend school. It is likely that this largely captures the impact of adolescent motherhood on schooling. Expanding access to family planning and implementing Comprehensive Sexuality Education (CSE) could reduce teenage pregnancy and keep more girls in school.

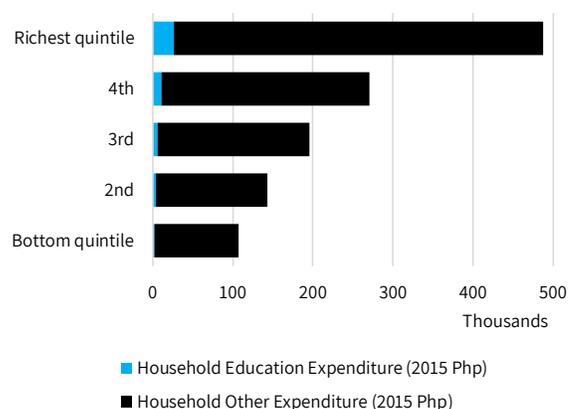


Figure 4.20. Household monthly education expenditure by quintile of per capita total household expenditure in 2015



Source: Merged FIES-LFS various years

Figure 4.21. Per school-age child, tuition and non-tuition educational expenses by quintile of per capita total household expenditure in 2015



Source: Merged FIES-LFS various years

Private Spending on Education and Disparities

The amount families spend to educate their children differs considerably between the poorest and the richest groups.⁴⁴ The richest quintile spends more than 10 times what the poorest quintiles spend for their children’s education on a per-child basis (Figure 4.20). About two-thirds of the education expenditures for the richest quintile are for private school tuition. In addition, the share of educational expenses in the household expenditure of the richest quintile is about 5 percent, more than double that for the poorest households (Figure 4.21). Non-tuition expenses are particularly significant burdens for the poorest. The better-off households spend more for each child on education inputs such as additional learning materials, private tutors, and afterschool classes that have a significant impact on learning and on their future productivity as workers.

Vicious Cycle of Inequality of Income and Inequality of Health Care

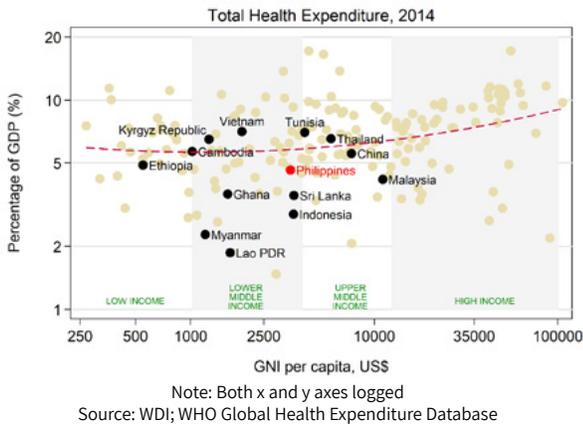
Low public spending on health is one of the main factors in the inequitable access and quality of health care services. Based on National Health Accounts (NHA) data, the Philippines spent about US\$131 (₱5,852) per capita and 5 percent of GDP on health in 2014, slightly less than other countries with the same income level. As a share of general government expenditures, public spending on health was around 9 percent, below the regional average for East Asia and Pacific Region (11.6 percent) and for LMIC (10 percent) for 2014 (NHA).

The pattern of health spending is even less inclusive: 56 percent of the total health spending

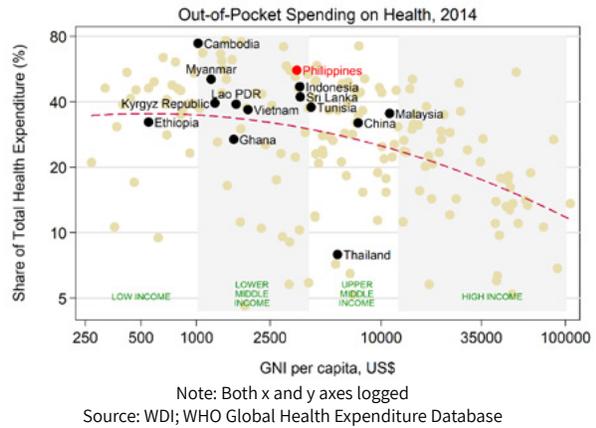
⁴⁴ The FIES reports the amount (in pesos) of household-based expenditures and, though it does not itemize expenses for education, it does report overall educational expenditure and non-tuition educational expenditures broken down by income group. There is no tuition for public schools in the Philippines, so where there are tuition expenses for households, it means that children are enrolled in private schools. Non-tuition education expenses include costs for such things as transportation, uniforms, shoes, bags, stationary, exams, and school events.

Figure 4.22. Health spending in the Philippines against international comparators, 2014

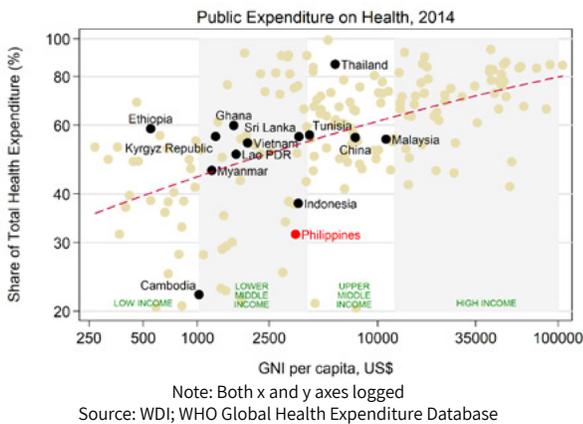
A. Total health spending as share of GDP



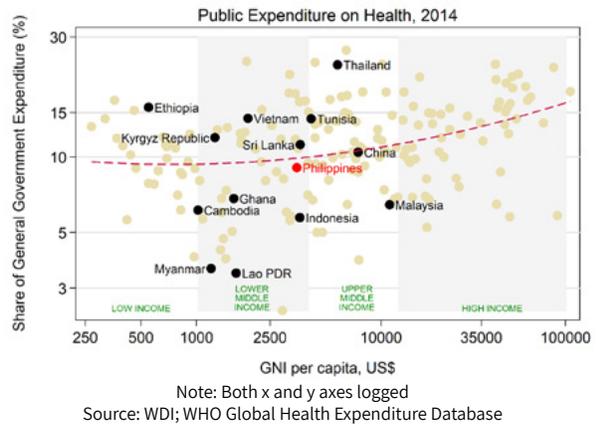
B. Out-of-pocket spending on health as share of Total Health Expenditures



C. Public health spending as share of Total Health Expenditure



D. Public health spending as share of General Government Expenditure



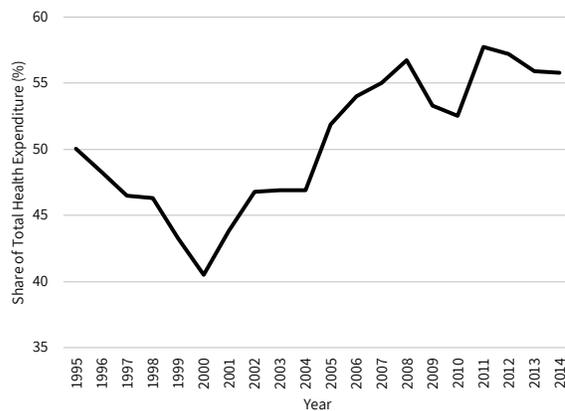
was household out-of-pocket spending, while only 32 percent was from the public sector. The share of out-of-pocket spending on health is higher than most countries in East Asia, including countries with much lower income levels, such as Lao Peoples Democratic Republic, Myanmar, and Vietnam and only lower than Cambodia. The Philippines could make efforts to increase public health spending to improve financial protection and population health (Figure 4.22).

The high out-of-pocket expenditure on health offered the population, particularly the poor, low financial protection against the costs of illness. This situation has remained largely the same over time. Between 2005 and 2014, household out-of-pocket

health spending as a share of total health spending increased to a peak of 58 percent in 2011, and gradually declined after that (Figure 4.23). Even so, the household out-of-pocket spending share in 2014 (56 percent) was still higher than it was in 2005 (52 percent).

Household income remains the major driver of inequities in the use of maternal and child health services, despite the recent national government-led subsidy for health insurance for the poor. Across households at different income levels, per capita spending on health increased significantly between 2009 and 2012. The change in spending for the poor was far greater than that for the non-poor and flattened afterwards. Per capita household spending

Figure 4.23. Household out-of-pocket spending on health as share of total health spending, 1995–2014



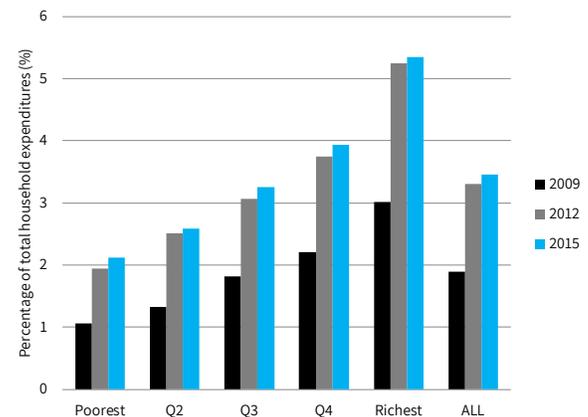
Source: World Health Organization Global Health Observatory

for health was ₱9,510 in 2015, almost double the sum in 2009. The largest share increases in health spending—65 percent (between 2009 and 2015)—was among the poor households. The share of health spending to total household expenditure also increased sharply in 2009–2012 and flattened after 2012 (Figure 4.24). While the share spent by poorer households was lower (2.1 percent in 2015) than the national average (3.5 percent in 2015), there was a significant increase over the years and among all quintile groups.

Expansion of Health Care Coverage

The Philippine Health Insurance Corporation (PhilHealth) was created in 1995 to implement universal health coverage in the Philippines and to improve financial protection of the population. Over the past decade, the Department of Health has focused its attention on expanding the coverage for the poor.⁴⁵ This has included (a) expansion of enrollment for indigents, (b) expansion of the benefits package that would address the health needs of the indigents, and (c) efforts to strengthen primary and maternal and child health quality of

Figure 4.24. Household spending share for health by quintiles, 2009, 2012, and 2015



Note: Covers all households, including those with zero spending. Excludes spending on dental services.

Source: FIES 2009, 2012, and 2015

care in RHUs by addressing their infrastructure and capital investment needs.

The additional effort has resulted in significant pro-poor expansion in coverage of PhilHealth in recent years. Among the poor, nearly two-thirds of the population had enrolled in health insurance in 2013 (compared with only one-fifth in 2008). Due to the increased coverage, the poor are more likely to use health services when sick. However, there was little improvement in health outcomes. The sharp increase in out-of-pocket health expenditure might be partly related to the increase in supply-induced demand or medicine spending, because many people are still purchasing drugs out-of-pocket, while also paying copayments (formal or informal) at hospitals. Medicines were the largest component of health spending, comprising as much as 62 percent. Inpatient services were a distant second at 27 percent in 2015. For poor households, medicine accounts for nearly three-quarters of household health spending.

PhilHealth became more pro-poor over the past five years through expansion of the benefits package to include outpatient services. Enrollment increased

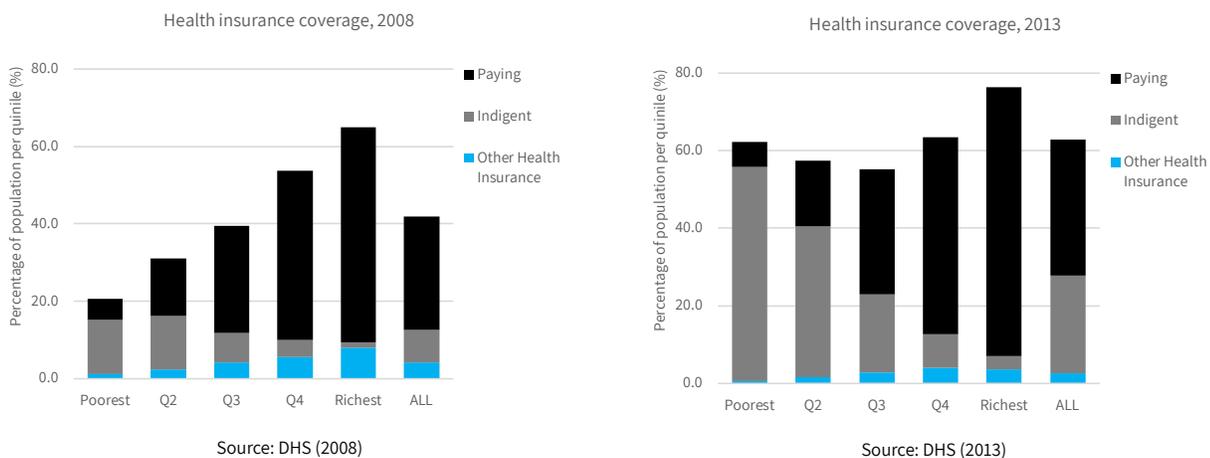
⁴⁵ See Annex H for more details of the pro-poor health policies in the past decade.



from about 42 percent of the population in 2008 to 62 percent in 2013, according to the National Demographic and Health Surveys. Enrollment of the bottom quintile increased from around 21 percent in 2008 to 62 percent in 2013 (Figure 4.25). The inclusion of the near poor under the subsidized premium was introduced only in 2014, and its effect will probably not be seen quickly. PhilHealth institutional data reported overall coverage of 78 percent in 2013, and of about 92 percent of the population in 2015, with the poor comprising 31 percent of the membership in 2013 and 40 percent in 2015.

As indicated earlier, there were significant differences in behavior among those who had insurance compared to those who did not. The increase in health insurance coverage contributed to improvement in the use of health care services, particularly for the poor. For maternal health, while the use of ANC services among poorer pregnant women was well below the national average, poor pregnant women with insurance were more likely to use ANC services than the uninsured poor. For child health, across all income levels, the insured are more likely to use health services when their children are

Figure 4.25. Health insurance coverage by quintile, 2008 and 2013



Note: PhilHealth (paying) refers PhilHealth coverage of the population that pays for its own premiums. PhilHealth (indigent) refers to the coverage of the population whose premiums are subsidized either by the national government or other sponsors, such as LGUs. Other insurance refers to the health insurance coverage other than PhilHealth.

sick. The inclusion of outpatient benefits within PhilHealth made it more attractive for the insured poor to use outpatient care with no copayments. For adult inpatient care, among those advised to seek it, more insured poor households were likely to follow through compared with the uninsured poor.

But despite these improvements in health care access brought about by expansion health insurance coverage, health care services remained limited and gaps were wide between the poor and non-poor. Access to health units and quality of health care remain poor in rural areas. As was pointed out earlier, ANC services available to poorer pregnant women are of lesser quality than those available to better-off pregnant women. The uninsured seemed to remain vulnerable, and the gap in access to services between insured and uninsured has widened.

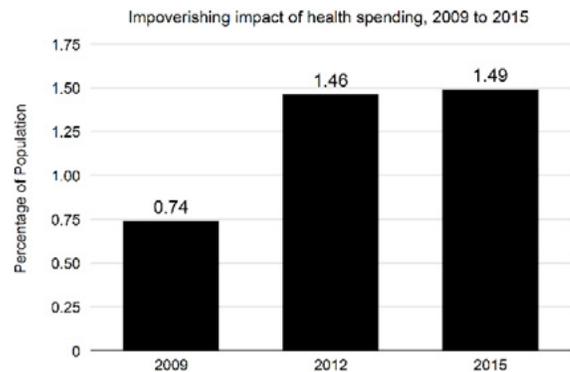
Public and Private Spending on Health

Household spending on health, for both regular and catastrophic needs remains high. The share of the population pushed into poverty by health spending has doubled over the past decade. Catastrophic spending on health occurs when a household's total out-of-pocket health payments equal or exceed 10 percent of total household spending. Catastrophic spending on health care worsened between 2009 and 2015, especially for poorer households.⁴⁶ Data from the FIES show that the share of households spending more than 10 percent of total consumption

on health doubled during 2009–2015, from 3.8 percent in 2009 to 7.9 percent in 2015. Incidence of catastrophic spending⁴⁷ on health tripled for the poorest households, and it has continued to increase in recent years. The share of the population facing catastrophic health spending also doubled, from 3.8 percent in 2009 to 7.9 percent in 2015.⁴⁸ For households in the poorest quintile, 3.7 percent of the population belonged to households that spent more than 10 percent of their total household consumption on health in 2015, compared with 1.3 percent in 2009.

Driven by the sharp increases in out-of-pocket and catastrophic health spending, a larger share of the population was pushed into poverty in 2012 and 2015 than in 2009 (Figure 4.26).⁴⁹ In 2009, less than

Figure 4.26. Impoverishing impact of health spending by quintile, 2009 and 2015



Note: Impoverishing impacts are analyzed using national poverty lines.

Source: FIES 2009, 2012, and 2015

46 See more details in Bredenkamp and Buisman (2015).

47 Out-of-pocket spending on health is considered catastrophic if it exceeds a certain fraction of total household expenditure. For the analysis here, we focus only on the 10 percent and 25 percent thresholds.

48 The concentration index, however, indicated that there was a greater tendency for richer households than for poorer households to spend out-of-pocket on health above each corresponding threshold level across all quintiles. This is an expected outcome since the non-poor may tend to opt for private sector and/or more expensive and/or more frequent visits to health providers than the poor. This is, however, below global benchmarks (10.7 percent in 2010) and regional East Asia benchmarks (13 percent in 2010) according to World Bank preliminary estimates.

49 Impoverishing impact analysis aims to measure the impact of health care payments on living standards and income inequality by focusing on households that may have been pushed into poverty—or further into it if the household is already poor—due to spending on health care. The basic idea is that out-of-pocket spending lowers the living standards of a household by reducing the amount of income available for other items the household would want to purchase. Out-of-pocket spending may be large enough to push a household below the poverty line. To measure impoverishing effect of health spending, we compare household expenditures with out-of-pocket and without out-of-pocket spending. If we generate a counterfactual measure by subtracting out-of-pocket from total health expenditures, this will provide us a sense of what the standard of living would have been if the household had not incurred health spending. See Wagstaff and Doorslaer (2003) for more discussion. See Annex I for more details.

Box 4.2. Public health spending and health care services

To break the cycle of poor health and poor income, public investment in health care needs to be improved to ensure easy access to basic good-quality care. This is particularly important for the poor and vulnerable. Ensuring that all children receive a fair start through quality health care will help them to succeed later in life and break the intergenerational trap of poverty.

Three areas need to be considered: access to care, access to quality care, and financial protection against illness costs. Via the Philippines Health Agenda (medium term strategy, 2016–22), the government is embarking on various programs to help move toward universal health coverage. Some further strategizing may be required, including in the Philippines 2012 policy on health service entitlements for the poor (PhilHealth primary care benefits, PCB1 and MDG related package).

Consideration also needs to be given to expanding upon the entitlements and to subsidizing an explicit essential benefits package, especially for indigents (poor and near poor) to include diagnostics, medicines, and commodities that respond to the needs of the poor. Consideration needs to be given to developing a national strategy for quality of health care improvement. Philippines Health Insurance Corporation provider payment reforms may also be considered to incentivize service performance and cost controls. Finally, to alleviate the burdens of out-of-pocket payment, medical costs and cost burden on the population need to be controlled and limited-balance billing assured. To fully use insurance to manage financial protection against illness costs, the targeting mechanism to reach the poor and near poor needs to be refined and enrollment of all the poor in the Philippines Health Insurance Program needs to be ensured. These interventions could have implications on poverty reduction as it will respond to significant health care access and cost faced by the poor.

1 percent (0.7 percent) of households were pushed into poverty by health spending. This doubled in 2012 and 2015 to around 1.5 percent.

Vicious Cycle of Inequality from the Start of Life

Malnutrition is a critical contributing factor to the cycle of intergenerational poverty in the Philippines. Its drivers are many and varied (Box 4.3).

Malnutrition in the womb and during the first two years of life inhibits brain development, resulting in lower levels of schooling, reduced cognitive function, and lower earnings later in life. One in three children in the Philippines under five is stunted—the principal marker of malnutrition—and stunting rates have been stagnant for over a decade.

Inequality in Child Malnutrition Outcomes

Child malnutrition, measured by stunting and wasting of children under age five, has improved little (Figure 4.27). The prevalence of wasting has been flat over time. It was 7.1 percent in 2015. The rate of stunting fell through the early 2000s but has been flat since then. Remarkably, the measured rate of stunting in 2015—33.4 percent—was slightly higher than in 2005.⁵⁰

Malnutrition is strongly associated with income levels. At the regional level, malnutrition shows wide variation by geography. There is a strong correlation between the poverty rate and the rate of stunting at the provincial level (Figure 4.28). Stunting rates are notably higher in rural areas (35

50 Stunting indicates that a child is, loosely speaking, short for his or her age. In statistical terms, a child who is stunted has a height-for-age z-score more than 2 standard deviations below the median of a healthy reference population. Wasting indicates that a child has low weight for his or her age, specifically a weight-for-age z-score more than 2 standard deviations below the median, and is a sign of acute, short-term malnutrition. The discussion here focused on stunting, which is widely used worldwide as the principal proxy for malnutrition.

Box 4.3. Drivers of malnutrition

Evidence from worldwide studies shows that malnutrition is driven by a complex mix of factors. Surprisingly, a comprehensive multivariate analysis of drivers of malnutrition specific to the Philippines has not been conducted. Several studies, however, have described factors that could be drivers of the high levels of stunting in the Philippines.^a The following are brief observations around key factors that are known to influence child malnutrition:

- **Maternal malnutrition.** One in four pregnant women in the Philippines were categorized as “nutritionally-at-risk” in 2015, and substantial numbers are anemic or have iodine deficiencies.
- **Lack of quality prenatal care.** The share of women who complete the recommended four prenatal health visits is high (84 percent), but there are doubts about the quality of this care.
- **Child nutrient deficiencies.** Forty percent of children aged six months to one year are anemic, with higher percentages among the poorer households. Vitamin A and zinc deficiencies also remains high among poor quintiles.
- **Lack of breastfeeding.** The rate of exclusive breastfeeding among children under six months has risen over time, reaching 52 percent in 2013. However, this figure hides the rapid drop-off as the child ages. The rate falls from 66 percent in the first month to only 22 percent in the sixth month.
- **Low quality of complementary food.** By the Minimum Dietary Diversity Score, a simple measure of dietary diversity, in 2013 just 17 percent of children ages 12–17 months had consumed a minimally diverse diet the previous day.
- **Food insecurity.** In 2013, 34 percent of households were categorized as food insecure, meaning that they did not have access to sufficient food by some measure.
- **Low vaccination rates.** Just 69 percent of children are fully immunized.
- **Lack of access to clean water and sanitation.** Overall, 21 percent of households lack access to a protected source of clean water, and 11 percent lack adequate sanitation.
- **Adolescent pregnancy.** Teenage pregnancy, a risk factor for birth outcomes, has increased in recent years. About 10 percent of women ages 15–19 have either had a child or are currently pregnant.

Recent studies that discuss possible factors include Philippine Food and Nutrition Research Institute (2016) and Herrin (2016). Danaei and others (2016) estimates the importance of various drivers by applying relationships from international evidence to national data.

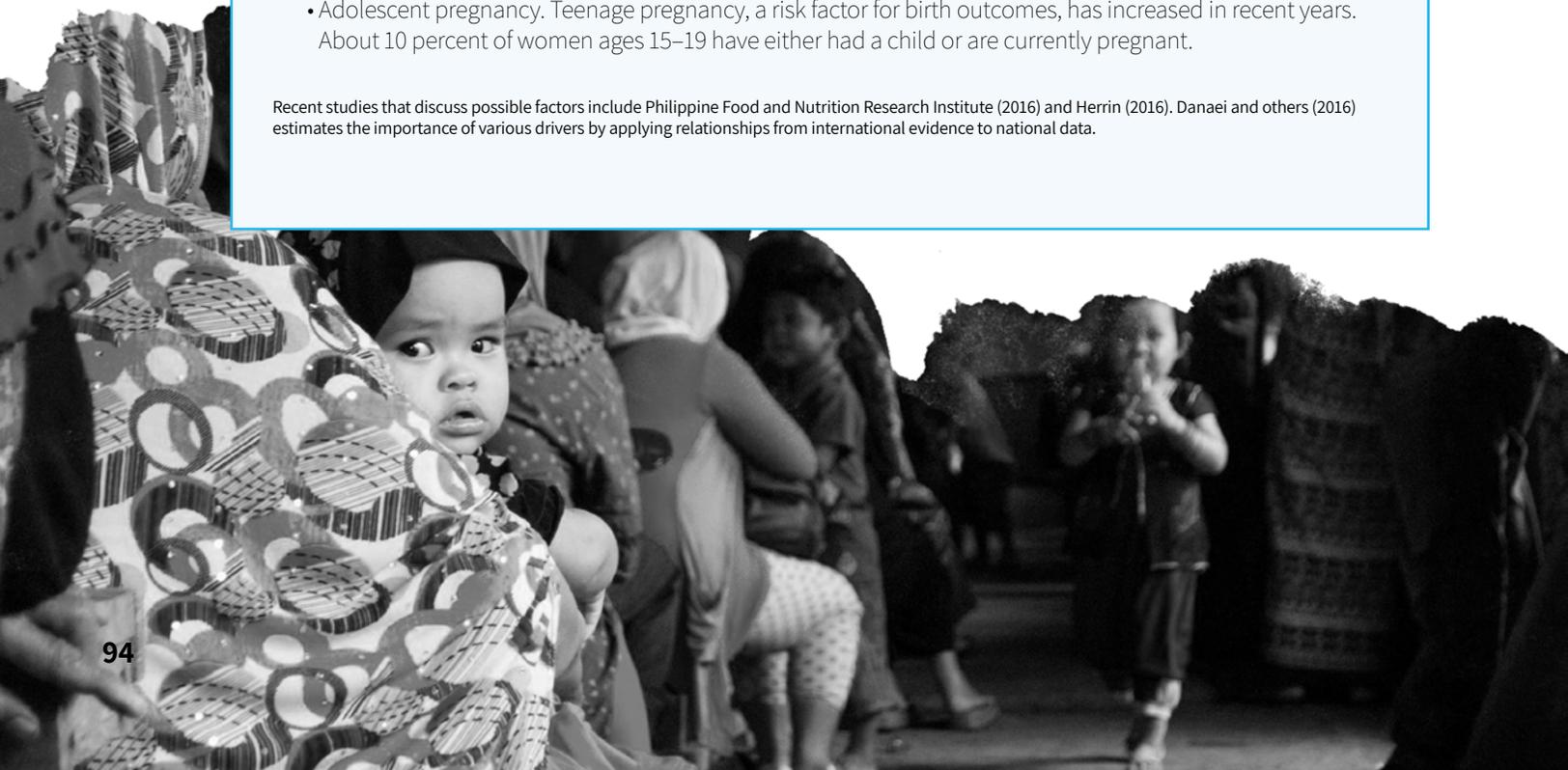
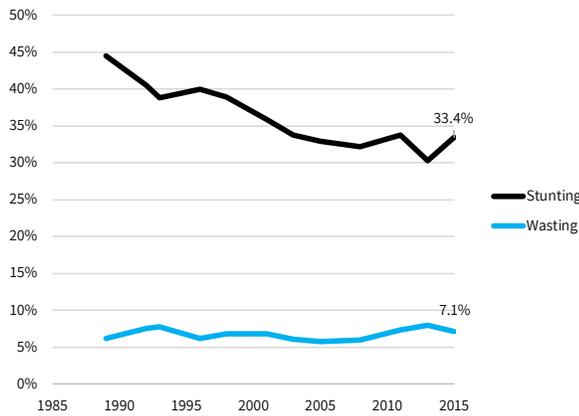


Figure 4.27. Malnutrition trends in the Philippines for children under five

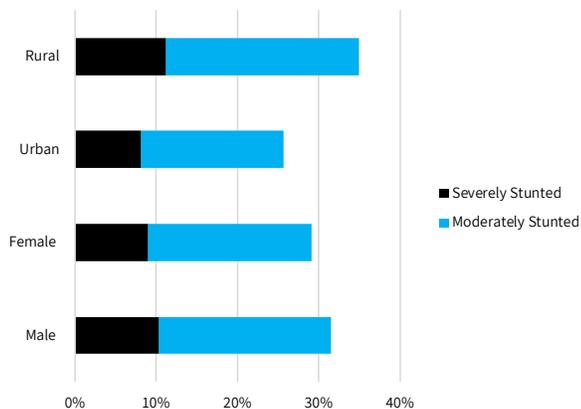


Note: Poverty rates shown are using the national poverty line, calculated with the 2015 FIES data.

Source: Philippine Food and Nutrition Research Institute (2016) and Bank staff analysis of FIES (2015)

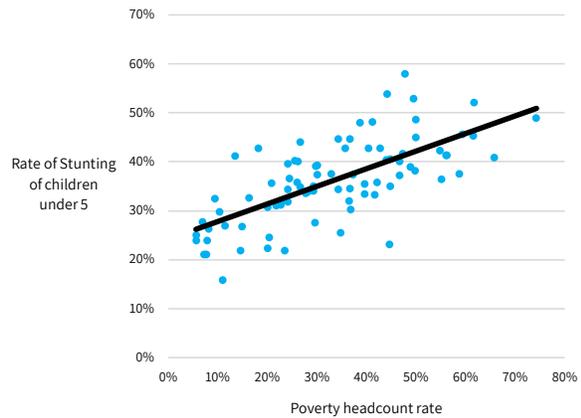
percent) compared with urban areas (26 percent) (Figure 4.29). Across regions, stunting rates are highest in the ARMM, where nearly one in two children (45 percent) are stunted, and lowest Region III (Central Luzon), where one in four (23 percent) of the children are stunted (Table 4.2) There is little difference in rates of stunting by gender. Rates of overall stunting and severe stunting are slightly higher for male children than for female children.

Figure 4.29. Rates of stunting for children under-five by urban/rural and gender, 2013



Source: Philippine Food Nutrition and Research Institute (2015)

Figure 4.28. Rates of malnutrition are highest in poor areas: Under-five stunting versus poverty rates in the Philippines by province



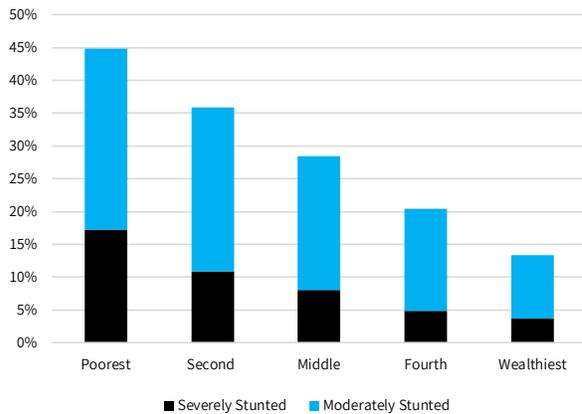
Source: WDI

Table 4.2. Stunting rate in the Philippines for children under five by region, 2015

| Region | Stunting Rate |
|----------------------------------|---------------|
| NCR | 25% |
| Region IV-A | 28% |
| Region III | 23% |
| Region II | 29% |
| Region I | 31% |
| Cordillera Administrative Region | 37% |
| Region XI | 32% |
| Region IV-B | 41% |
| Region VII | 38% |
| Region VI | 40% |
| Region V | 40% |
| Region IX | 38% |
| Region X | 37% |
| Caraga | 36% |
| Region XII | 40% |
| ARMM | 45% |

Source: Philippine Food Nutrition and Research Institute (2016)

Figure 4.30. Rates of stunting for children under five, by income quintile, 2013

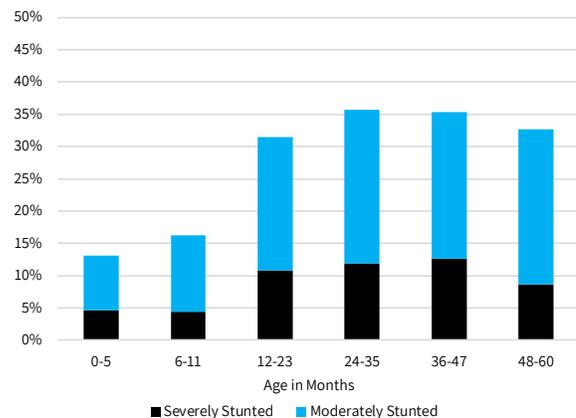


Source: Philippine Food Nutrition and Research Institute (2015)

Note: The overall stunting figure is broken down into severe stunting (more than 3 standard deviations below the median) and moderate stunting (between 2 and 3 standard deviations below the median).

Across the segments of income distribution, stunting rates vary markedly by household wealth. Children in the poorest quintile of households are far more likely to be stunted than those from wealthier households: 45 percent of the children from the poorest quintile are stunted, and 17 percent are severely stunted. In comparison, 13 percent of children in the wealthiest 20 percent are stunted, and less than 4 percent are severely stunted (Figure 4.30). The stunting rates for children under five varied by more detailed age groups (Figure 4.31). The broad research on malnutrition has demonstrated that the most critical period for long-term growth starts at conception and extends roughly through the first two years of life—often described in shorthand as the first 1,000 days. The pattern by age in the Philippines is compatible with this general finding. Stunting is 13 percent among newborns (less than six months of age), and 16 percent among those between six and twelve months old. For children in their second year of life, the rate jumps to 32 percent and remains roughly flat in the following years.

Figure 4.31. Rates of stunting for children under five by age group, 2013



Source: Philippine Food Nutrition and Research Institute (2015).

Costs of Child Malnutrition

Global evidence shows that the long-term costs of child malnutrition⁵¹ are high: they include an additional 0.05–1.6 percent of GDP for health costs alone. Furthermore, childhood stunting is associated with adverse outcomes throughout life. The malnourishment and disease that are the cause of widespread stunting impede the development of young brains. The result is impaired cognitive and socioemotional skills and lower levels of schooling. Children who are stunted are more likely to face health problems later in life, resulting in higher health care costs. In addition, children who are stunted are much more likely to have short stature as adults, and independent of other factors, adult height is correlated with higher wages. Perhaps the most convincing evidence comes from long-term cohort studies, which have followed children from birth to adulthood in Brazil and Guatemala. Both find substantial effects of stunting at age two on adult income, for both men and women.

51 Galasso and Wagstaff (2016) provides one recent survey of this evidence.

The rich literature on the high costs of childhood malnutrition in the Philippines (Box 4.4) found that the overall cost of child malnutrition in education and productivity channels are equivalent to 2.8 percent of the Philippines GDP.

The returns from investments to reduce malnutrition are extraordinarily high in the Philippines. Fully implementing existing nutrition initiatives would reduce poverty.

Given the combination of high levels of stunting and the low costs of nutrition-specific interventions, the rate of return to investments for a package of such initiatives is extraordinarily high. (Figure 4.32) shows benefit-cost ratios for such investments across a set of countries. The estimated benefit in the Philippines is 44 pesos for every 1 peso invested. This is the second-highest rate of return across all countries analyzed.

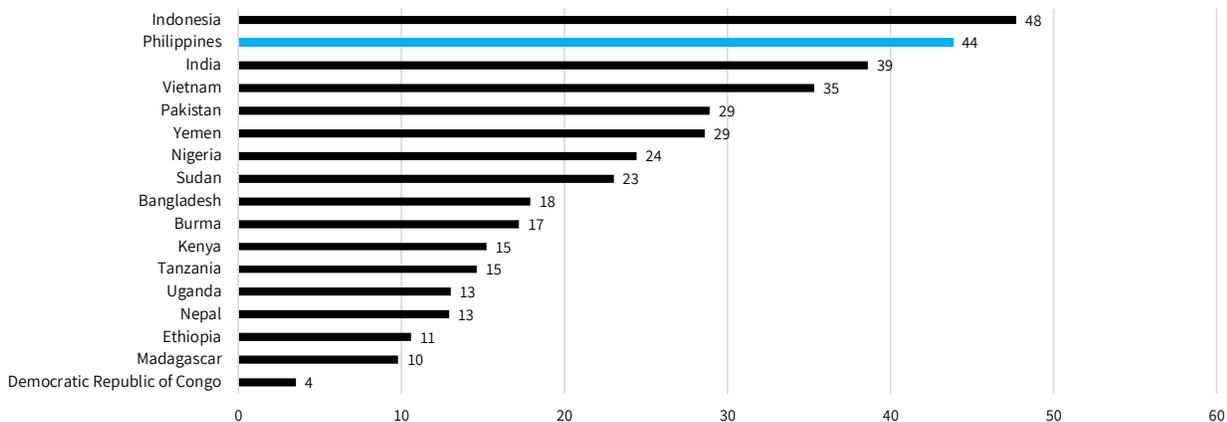
Box 4.4. High costs of childhood malnutrition in the Philippines

Several studies quantify the high cost of early childhood malnutrition in the Philippines, drawing from the Cebu Longitudinal Health and Nutrition Survey (CLHNS) in the Metropolitan Cebu area.

Glewwe, Jacoby, and King (2001) found that children who were better nourished in the early years performed significantly better in school. Those children entered school earlier, and thus had more schooling, but also had higher learning productivity per year of schooling. Daniels and Adair (2004, 2005) found that early childhood growth deficiencies are associated with later age at entry into school, more grade repetition, and lower completed school attainment. Mendez and Adair (1999) found that early childhood stunting was associated with lower IQ at age eight. Carba, Tan, and Adair (2009) found that low height-for-age at young ages was associated with reduced likelihood of working in formal wage jobs as adults in a follow-up round to the study in 2005, when participants were approximately age 21.

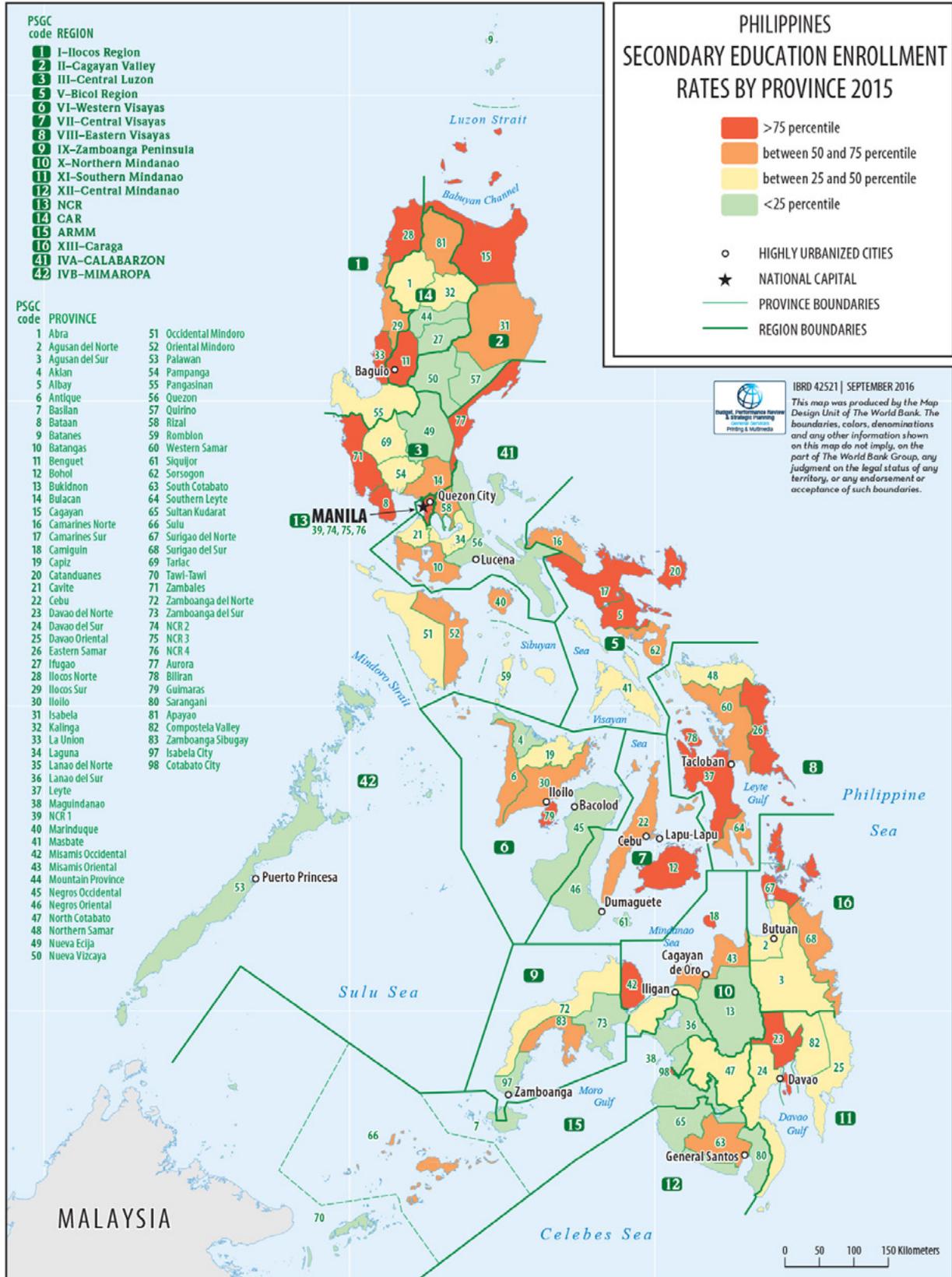
Note: The CLHNS was carried out in the Metropolitan Cebu area on the island of Cebu, Philippines. It has tracked over time a sample of 3,289 children born between May 1, 1983, and April 30, 1984.

Figure 4.32. Rates of return to investments to reduce stunting, by country

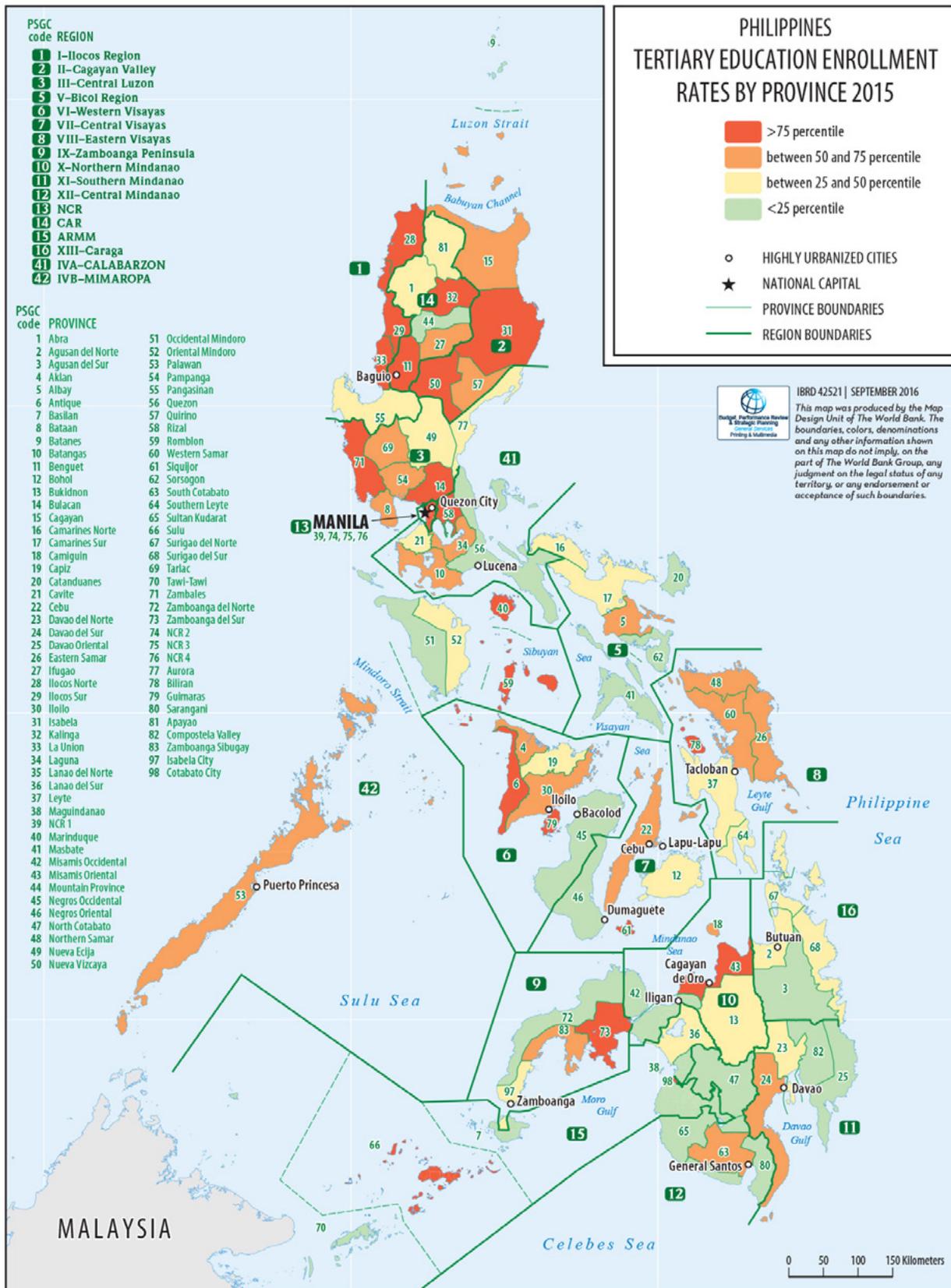


Source: Hoddinott and others (2013)

Map 4.1. Secondary education enrollment by province



Map 4.2. Tertiary education enrollment by province





CHAPTER FIVE

Role of Private and Public Transfers on Poverty and Inequality

Patterns and Distribution of Domestic and Foreign Remittances
Impact of Remittances on Poverty and Human Capital
Overview of Social Protection Programs in the Philippines
Impact of Pantawid Pamilya on Poverty Reduction
Impact of Pantawid Pamilya on Human Capital Building

Role of Private and Public Transfers on Poverty and Inequality

- **Transfers from public and private sources**, which represent 15 percent of total household income, have been key drivers of poverty reduction. Over 2012–2015 the effect of government transfers on poverty reduction has been almost three times that of transfers from family members.
- **Two-thirds of Filipinos**, 15 million households, receive domestic and foreign remittances. Both transfer types have similar impacts on reducing the poverty rate (reducing it by about 4 percentage points), but domestic remittances reduce inequality, while foreign remittances increase it.
- **Remittance-recipient households** generally spend more on health and education than non-recipients. Children of recipients tend to be enrolled in school and work less than children of non-recipients. Labor force participation tends to be lower among recipients than non-recipients, especially for those receiving foreign remittances.
- **The government's *Pantawid Pamilya Pilipino Program*** (the conditional cash transfer program) has become the primary government social assistance program for the poor. The conditional cash transfer program (CCT) extends cash grants directly to 77 percent of the poorest households and covers 20 percent of the income gap of poor beneficiaries.
- ***Pantawid Pamilya*** contributes to reducing poverty and inequality and helps influence behavior change and build beneficiary families' human capital. It improved school enrollment of older children and encouraged early childhood education. It also increased the health-seeking behaviors of beneficiaries.
- **Listahanan**, the national database for the identification of poor households for the *Pantawid Pamilya* Program, can also be used to channel cash assistance to the poor for other purposes (such as dealing with a post-disaster emergency).

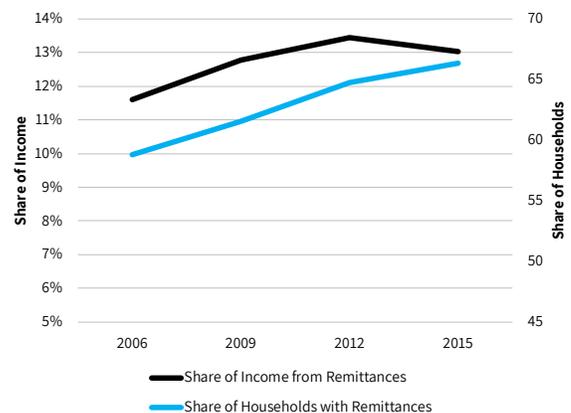
This chapter analyzes the distribution and impact of domestic and foreign transfers. It considers both foreign and domestic remittances and public transfers. It also examines the private and public transfers on building human capital through education and health care. It discusses the government’s social protection programs with a focus on the national CCT, *Pantawid Pamilya*, including its targeting mechanism and effectiveness in promoting behavioral changes.

Patterns and Distribution of Domestic and Foreign Remittances

The Philippines is among the top destinations for migrant remittances in the world. Foreign migrant remittances were US\$30 billion in 2016,⁵² below only China and India in the developing world, and equivalent to 10 percent of GDP (Box 5.1).⁵³ Foreign remittances have constantly trended upward since 1998, which was important in mitigating the risks in the 2008–2009 global financial crisis. The six million Filipino migrants constitute the seventh-largest diaspora in the world (surpassed by Bangladesh, China, India, Mexico, Pakistan, and the Russian Federation). In 2015, 15 million households, or two-thirds of the total household population, received remittances—12 million households (53 percent of the total households) from domestic sources, 6.3 million from foreign sources (28 percent of the total households), and 3.2 million from both sources (14 percent of the total households) (Figure 5.1).

Remittances are an important source of household income for recipients. For migrant households, 22 percent of total household income comes from this source. But there are substantive differences in the

Figure 5.1. Foreign and domestic remittances



Source: Calculations based on FIES 2006 and 2015

types of remittance: while those from domestic sources only constitute 11 percent of total household income, those from foreign sources constitute about a quarter of total household income, and those from both foreign and domestic sources constitute around 32 percent. In general, domestic remittances are more common among households in rural areas, while foreign remittances are more common in urban areas. While coverage rates of foreign remittances among urban and rural residents are 49 percent and 55 percent, respectively, they are 30 percent and 26 percent for foreign remittances.

Remittances from foreign and domestic sources have been increasingly important in the Philippines, particularly for the poor. The share of households receiving remittances increased from 59 percent in 2006 to 66 percent in 2015. As a share of total household income, they increased from 11 percent in 2006 to 13 percent in 2015.

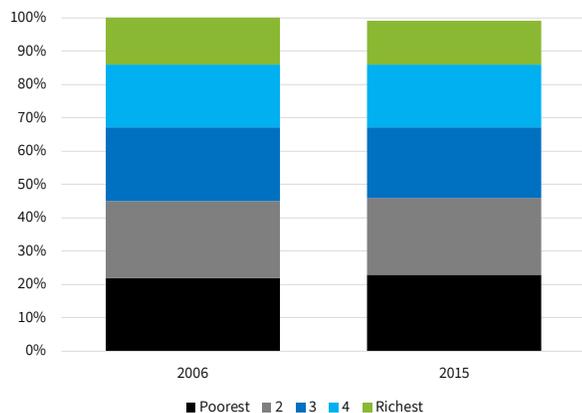
Domestic Remittances

In terms of incidence, a large percentage of the poor receive remittances from domestic sources. In 2015, 23 percent of recipients of domestic remittances

52 Top origin countries for international remittances to the Philippines are the United States, United Arab Emirates, and Saudi Arabia.

53 There is no information on the aggregate size of domestic remittances because tracking these transactions is often considered unnecessary from the national accounts’ point of view (Sander 2003). Also, domestic remittances are likely to come through informal channels that are difficult to capture in official data (Castaldo and others 2012).

Figure 5.2. Incidence of domestic remittances by income quintile

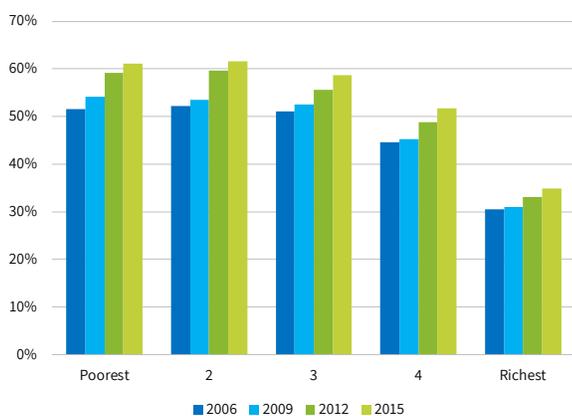


Source: Calculations based on FIES 2006 and 2015

were in the bottom 20 percent of the income distribution, and just 13 percent were in the top 20 percent. This pattern is surprisingly stable, with virtually no differences with that registered back in 2006 (Figure 5.2). In terms of coverage, domestic remittances have increased across all income quintiles, with the largest one registered among the bottom 20 percent (from 51 percent in 2006 to 61 percent in 2015), while among those in the richest income quintile, the increase is much more modest, from 30 percent in 2006 to 35 percent in 2015 (Figure 5.3).

The domestic remittances also account for a larger share of total household income among the poor compared with the rich (Figure 5.4). This indicates that the poor rely more on domestic remittances. From 2006 to 2015, the share of domestic remittance to total household income was consistently highest

Figure 5.3. Share of households with domestic remittances by income quintile



Source: Staff estimates using various rounds of FIES

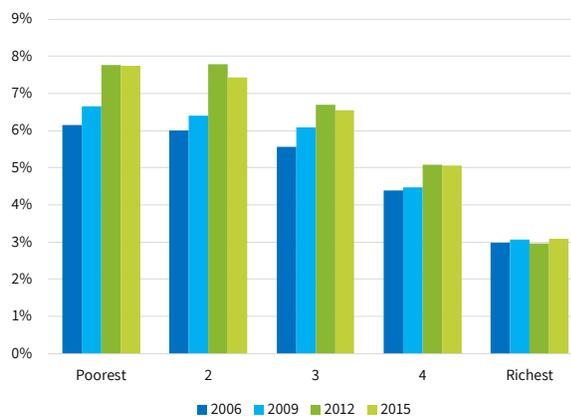
Box 5.1. Data sources for remittances

Estimates for remittances are based on household survey data, primarily the FIES for 2006, 2009, 2012, and 2015. In FIES, the amount of foreign remittances received is the sum of the values reported of cash from family members who are overseas contract workers (OCW); cash from family members who are working abroad other than OCW; cash gifts, support, relief, etc. from abroad. The amount of domestic remittances received is cash, any gift, assistance, or relief from other families domestically. However, estimates from household surveys underreport actual foreign remittances reported in national accounts (Ducanes 2010). In 2015, foreign remittance estimates from household data are only US\$12 billion, while data from national accounts on foreign remittances report about US\$24 billion. Similar underreporting is also present for 2012: the household data estimate is US\$11 billion, while that from national accounts is US\$18 billion.

among those in the poorest income quintile, and lowest for those in the richest income quintile. The share of domestic remittance as part of household income also increased for those in the poorest quintile—from 6.2 percent in 2006 to 7.8 percent in 2015. This increase is not observed among those in the richest decile, which remained at 3 percent from 2006 to 2012.

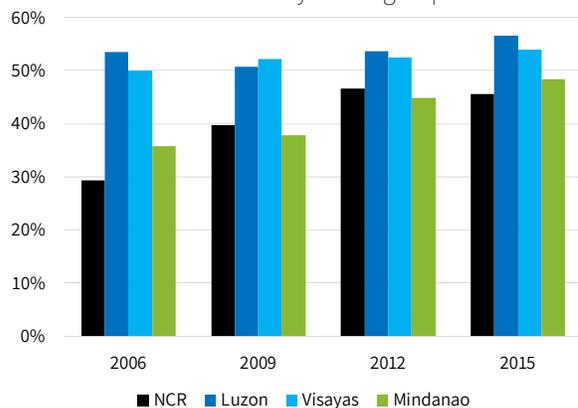
By geographic location, Luzon had the highest share of households with domestic remittances from 2006 to 2015. However, the NCR had fastest increase in the share of households with domestic remittances—from 29 percent in 2006 to 46 percent

Figure 5.4. Share of domestic remittance income to total household income by income quintile



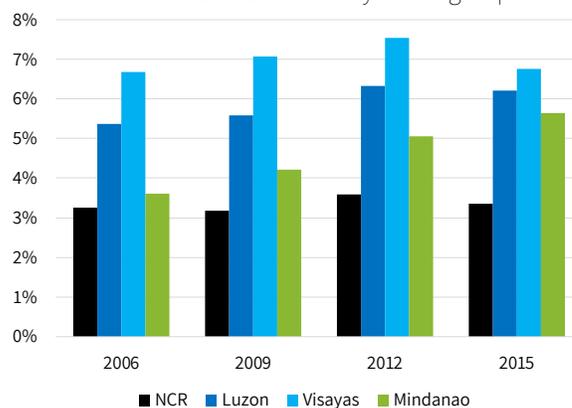
Source: Staff estimates using various rounds of FIES

Figure 5.5. Share of households with domestic remittances by island group



Source: Staff estimates using various rounds of FIES

Figure 5.6. Share of domestic remittance income to total household income by island group



Source: Staff estimates using various rounds of FIES

in 2015. This was followed by Mindanao, which had an increase in the share of households with domestic remittances rising from 36 percent in 2006 to 48 percent in 2015 (Figure 5.5).

Based on share of total household income, those living in Visayas relied more on domestic remittances compared to those living in Luzon and Mindanao. The share of domestic remittance as part of total household income was consistently highest for those in Visayas from 2006 to 2015. However, Mindanao had the highest increase in share—from

3.6 percent in 2006 to 5.7 percent in 2015 (Figure 5.6)

At the regional level, not all the poorest regions received a large share of domestic remittances. For example, coverage of domestic remittances was highest in one of the poorest regions in 2015, Region V (Bicol Region), at 69 percent (Table 5.1). At the same time, coverage was lowest in the two poorest regions, ARMM and Region 12. This is consistent with studies that found migration from the poorest areas difficult due to their remoteness and the lack of human and social capital.⁵⁴

Table 5.1. Regions with highest and lowest coverage of domestic remittances, 2015

| Region | Coverage | Poverty incidence (Philippines = 22%) |
|--------------------------------------|----------|---------------------------------------|
| With highest coverage | | |
| Region V – Bicol | 69% | 36% |
| Region IV-B – Mimaropa | 61% | 24% |
| Region IX – Zamboanga Peninsula | 59% | 34% |
| Region I – Ilocos | 58% | 13% |
| Region III – Central Luzon | 57% | 11% |
| With lowest coverage | | |
| Autonomous Region in Muslim Mindanao | 29% | 54% |
| Region XII – Soccsksargen | 39% | 37% |
| Region II – Cagayan Valley | 40% | 16% |
| Cordillera Administrative Region | 43% | 20% |
| National Capital Region | 46% | 4% |

Source: Calculations based on FIES 2015.

54 See de Haan and Yaqub (2008); Deshingkar and Start (2003).

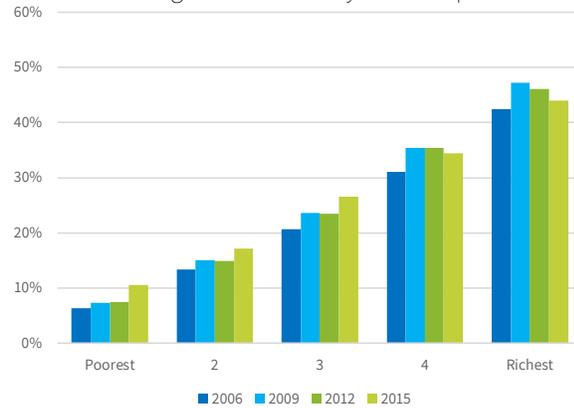
Foreign Remittances

Unlike domestic remittances, foreign remittances are more important to the rich than the poor. From 2006 to 2015, those in the richest income quintile consistently had the highest share of households with foreign remittances, and those in the poorest income quintile consistently had the lowest share. In 2015, however, the share of households with foreign remittances in the poorest quintile significantly increased, and they decreased in the households in the richest quintile (Figure 5.7).

The share of foreign remittances in total household income is also higher among the rich compared with the poor. However, from 2006 to 2015, the share of foreign remittances in total household income increased for all but the highest quintile. Those in the richest quintile experienced a decrease in the share of foreign remittances from 15 percent in 2006 to 13.6 percent in 2015 (Figure 5.8).

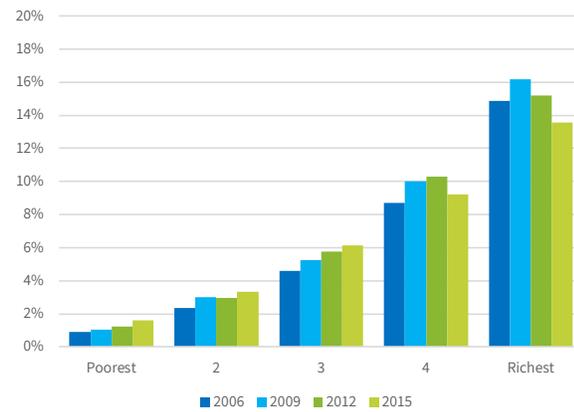
Over time, the NCR and Luzon had the highest shares of households with foreign remittances; Visayas and Mindanao consistently had the lowest shares. Despite this, Mindanao had the highest increase in

Figure 5.7. Share of households with foreign remittances by income quintile



Source: Staff estimates using various rounds of FIES

Figure 5.8. Share of foreign remittance income to total household income by income quintile



Source: Staff estimates using various rounds of FIES

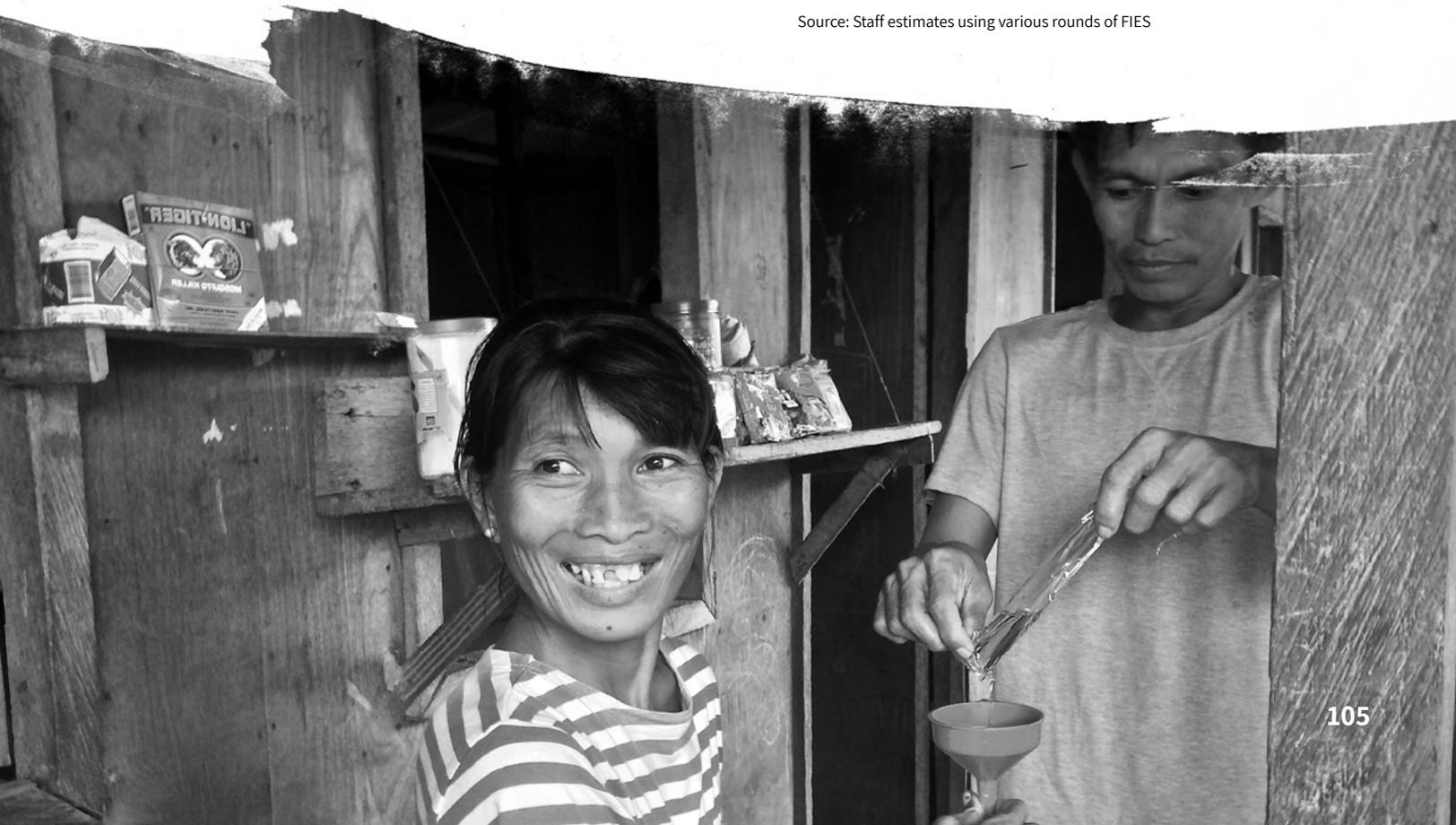
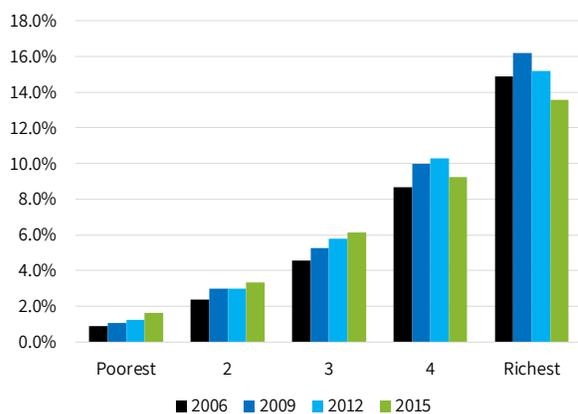


Figure 5.9. Share of households with foreign remittances by island group by income quintile

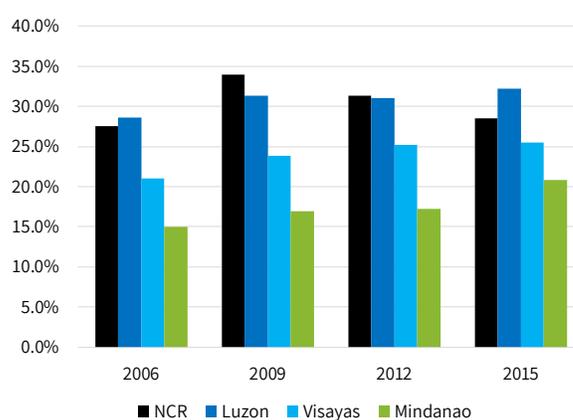


Source: Staff estimates using various rounds of FIES

the share of households with foreign remittances—from 15 percent in 2006 to 21 percent by 2015 (Figure 5.9). The share of households with foreign remittances also increased in Visayas from 21 percent in 2006 to 25 percent in 2015. NCR and Luzon were relatively stable across time, increasing from 2006 to 2009 then decreasing in 2012.

Likewise, those living in the NCR and Luzon relied on foreign remittances more than those living in Visayas and Mindanao. The share of foreign remittances as part of total household income was consistently highest for Luzon from 2009 to 2015. The increase in share of foreign remittance as part of total household income was slow for all geographic regions from 2006 to 2015. It even decreased for the NCR, from 8.3 percent in 2006 to 6.6 percent in

Figure 5.10. Share of foreign remittance income to total household income by island group

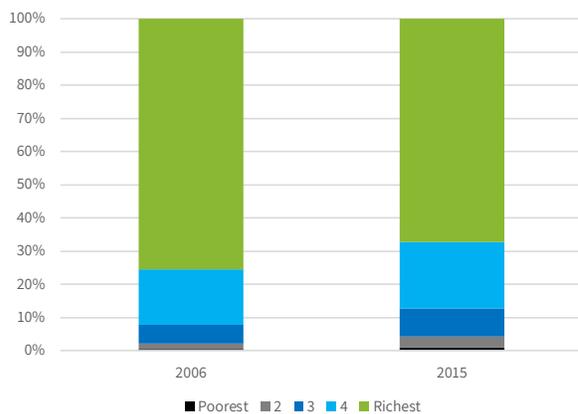


Source: Staff estimates using various rounds of FIES

2015. The rest of the regions saw a net increase of only 1 percent in the share of foreign remittances from 2006 to 2015 (Figure 5.10).

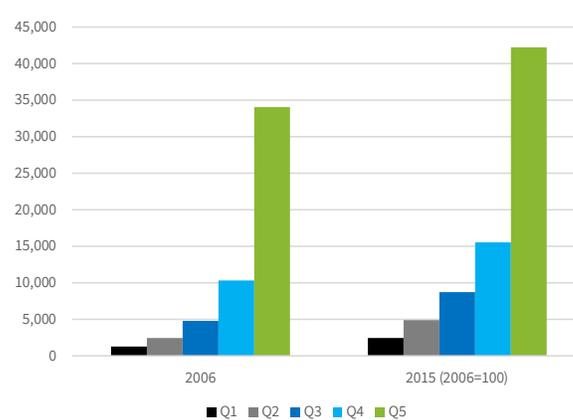
Foreign remittances have much higher value than domestic ones, though they are substantially less pro-poor in distribution. Less than 1 percent of foreign remittances go to the bottom 20 percent of the population, while two-thirds flow to the richest quintile of the distribution (Figure 5.11). This pattern is slightly less unequal than in 2006, when the proportion of remittances going to the richest 20 percent was three-quarters of the total. The amount of foreign remittances received by the upper 20 percent was around 17 times that received by the bottom 20 percent in 2015, a total that is lower than in 2006, when the difference reached 26 times (Figure 5.12).

Figure 5.11. Distribution of foreign remittances by income quintile



Source: Staff estimates using various rounds of FIES

Figure 5.12. Annual foreign remittances by income quintile



Note: In pesos, nominal value peso.

Source: Staff estimates using various rounds of FIES.



Impact of Remittances on Poverty and Human Capital

The generally pro-poor nature of remittances in the Philippines was important in reducing poverty and supporting human capital building.

Poverty Reduction

Domestic remittances reduce poverty incidence by up to 3.8 percentage points in 2015 compared to 2.8 percentage points in 2006, and every peso of domestic remittances can close the poverty gap by up to 18 percent in both years.⁵⁵ In other words, without domestic remittances, the poverty incidence in the Philippines would have been 25.4 percent instead of 21.6 percent in 2015, while the poverty gap would have been ₱1 instead of ₱0.82. Back in 2006, the reduction in poverty incidence would have been lower, of 2.8 percentage points, but would produce a similar impact on the poverty gap. Using similar assumptions, domestic remittances reduced inequality by 1.2 percentage points in 2015.

The effect of foreign remittances on the poverty incidence is similar to that of domestic remittances, lifting 3.8 percent of people out of poverty in 2015

compared to 3.3 percent in 2006, but its impact on the poverty gap is negligible. In contrast to domestic remittances, a peso of foreign remittance only closes the national poverty gap by 6 centavos in 2015 and 4 centavos in 2006. Moreover, foreign remittances increased income inequality (measured by the Gini coefficient) by 0.3 points in 2015. Nevertheless, these figures are better than was the case in 2006, when the impact on the poverty incidence and the poverty gap were even smaller.

Other Impacts

Poverty reduction is not the only effect of remittances. The effects on human and social capital building can help ensure sustained impact from remittances. As in many other countries, remittances play an important role as a safety net, providing additional income for consumption and investment.

The impact of remittances on labor participation is usually a subject of debate. A direct comparison (controlling for other individual characteristics such as age, gender, education, and area of residence) seems to suggest that adults (18 years old and up) from households receiving remittances (particularly those receiving foreign remittances) have much lower labor force participation than non-recipients.⁵⁶ In 2015, the conditional average labor force participation rate

55 The estimated poverty impact refers to the difference between the poverty incidence based on reported income and the poverty incidence excluding domestic remittances from reported income. A caveat in interpreting poverty impact is that the analysis does not account for the income the migrant worker would earn if he or she remained in their home. This could overstate the transfers' impact on poverty reduction. In addition, information on remittances is only available for receiving households and not for sending households, hence the impact of remittances on consumption or welfare for sending households cannot be directly estimated.

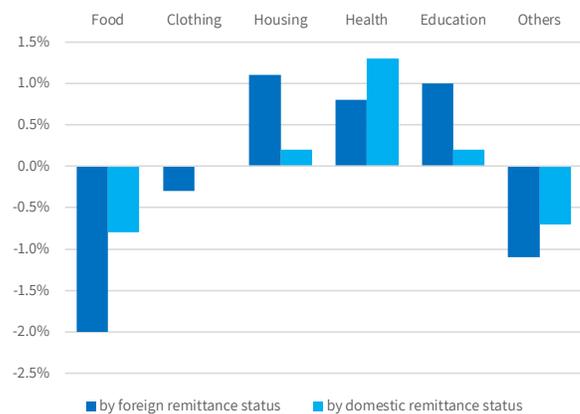
56 See more details of the impact of remittances on labor participation, children school attendance, and consumption spending patterns in Annex J.

(the mean of the household labor force participation rate, controlling for other factors) for non-recipients of foreign remittances was 71 percent, while that for recipients was 53 percent. The difference is less noticeable by domestic remittance status, since the reduction in labor force participation is just 3 percentage points for recipients (65 percent) versus non-recipients (68 percent). This difference by remittance origin is expected, given the much larger value amount for foreign remittances. Employment rates and hours worked were also lower for recipients than non-recipients. Still, some studies that have done a more careful counterfactual analysis (that is, taking into account that migration is not a random event, but an intrahousehold labor reallocation decision) suggest that the difference in labor participation between remittance recipients and non-recipients is insignificant if the characteristics of the migrant households are considered (see, for example, Ducanes 2012).

Children between the ages of 5 and 18 from households receiving remittances are also more likely to attend school than non-recipients, while the margin is small. The conditional average school attendance rate among non-recipients of foreign remittances (controlling again for other individual factors) is 89 percent, while it is 91 percent among recipients. The difference is again smaller (1 percentage point) according to domestic remittance status. Child labor⁵⁷ is also less common among recipient households as their children spend more time in school.

In terms of spending patterns, there are also noticeable differences in household behavior by remittance-recipient status. Controlling for several household characteristics (income; gender, age, and education of household head, area of residence), recipients spend less on food as a share of total spending with respect to non-recipient, while spending more on health, education, and housing (Figure 5.13). Differences are again more noticeable for foreign remittance recipients, especially in the higher allocation to housing and education expenses, while those receiving domestic remittances tend to increase the most expenses related to health.

Figure 5.13. Differences in consumption patterns by remittance-recipient status



Source: Calculations based on FIES 2015

Overview of Social Protection Programs in the Philippines

The Philippine social protection system consists of programs to provide for social welfare, social safety nets, labor market interventions, and social insurance. The concept of social protection was formally recognized in the Philippines in 2007, when the Department of Social Welfare and Development (DSWD) initiated reforms in social protection to align resources to priority programs and projects that offered high impact in coverage, cost-effectiveness, sustainability, and efficiency. The *Pantawid Pamilya*, a CCT, then became the centerpiece of the government’s social protection framework. The national household targeting system for poverty reduction, *Listahanan*, was piloted through the CCT program (Box 5.2). The 2012 enhanced social protection framework took a broader focus on the multiplicity of risks faced by Filipinos and called for a more effective and convergent social protection operational strategy (Philippines, DSWD and NEDA 2012). The CCT program was counted as a social safety net program alongside social insurance, labor market, and social welfare programs and interventions.

57 Child laborers are household members below age 15 who worked at least one hour in the past week.

Box 5.2. The *Pantawid Pamilyang Pilipino* Program and *Listahanan*

The *Pantawid Pamilyang Pilipino* Program (*Pantawid Pamilya*) is the Philippines’ national conditional cash transfer program. With the DSWD as lead agency, the program was piloted in 2007 with 6,000 household beneficiaries. It was formally launched in 2008 with coverage of 320,000 households. Since then, the program has expanded—to 4.4 million households in 2015, or 100 percent of all poor households with children as identified by the national household targeting system for poverty reduction—*Listahanan*. Covering about 21 percent of the population, *Pantawid Pamilya* is currently the third-largest CCT program in the world, following Brazil, which covers 29 percent of its population, and Mexico, which covers 27 percent. Eligibility for *Pantawid Pamilya* requires that a household be poor, have either a pregnant mother or at least one child, and agree to comply with the program conditions.

| PANTAWID PAMILYA PROGRAM CONDITIONS | |
|---|---|
| <p>Education conditions</p> <ol style="list-style-type: none"> 1. Children three–five years old enroll in preschool or day care facilities and maintain school attendance of at least 85 percent of school days per month. 2. Children 6–18* years old enroll in elementary or high school and maintain school attendance of at least 85 percent of school days per month. | <p>Health conditions</p> <ol style="list-style-type: none"> 1. Children below five years of age go for monthly visits to health stations to receive age-appropriate health checks and services as prescribed by the Department of Health. 2. Children 6–14 years old take deworming pills twice a year in school. 3. Pregnant women go for trimestral consultations during pregnancy. 4. Pregnant women have delivery attended by a skilled health worker. 5. Grantee and/or spouse attend/s monthly Family Development Sessions (FDS). |

Source: *Pantawid Pamilya Operations Manual* (as of September 2014).

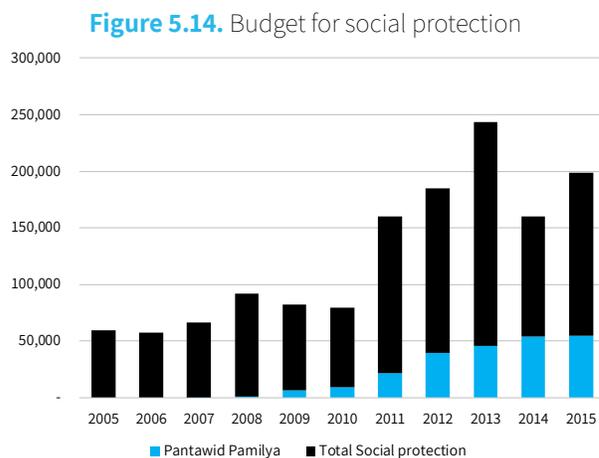
*Extension of program conditions and benefits to 15–18 year-old school children began in January 2014.

Listahanan is a proxy means test–based targeting system. *Listahanan* estimates the income level of the household and compares it against the government’s official income poverty threshold to determine the household’s poverty status, using a standard set of household information that is easy to collect, measure, and verify. It was created in 2007 to initially identify poor households that could benefit from *Pantawid Pamilya*. It has since grown to become a nationwide household-based targeting system that is used to identify beneficiaries for almost all government programs targeted at the poor and vulnerable population. *Listahanan* currently has 11 million households in its database (out of 20 million households nationwide), of which 5.2 million households were classified as poor, among which 4.4 million had children 0–14 and/or pregnant women, and were gradually enrolled in *Pantawid Pamilya* as its beneficiaries.

Source: Excerpt from Acosta and Velarde (2015).

The objective of *Pantawid Pamilya* is twofold: to reduce poverty and to build human capital. It provides income support to poor households through a CCT, helping them afford to meet their basic needs in the short-term, and incentivizing investment in the well-being of children so they can be more productive citizens in the future and break the cycle of poverty.

Government spending on social protection increased rapidly as *Pantawid Pamilya* expanded, but it remained only a small share of GDP. A study estimated that government spending on social protection was only 0.4 percent of GDP in 2007 (Manasan 2006), and this mostly went to untargeted in-kind (rice) subsidies that benefited the poor and non-poor almost equally. In 2017, social protection accounted for 4.5 percent of the national budget, nearly tripling from a nominal ₱59 million in 2005 to ₱143 million in 2017. *Pantawid Pamilya* used 38 percent of the social protection allocation in 2017 (Figure 5.14). However, the share of spending on social protection remained low compared with the average in lower-middle-income countries (1.6 percent) and most East Asian countries (only higher than the Lao Peoples Democratic Republic, Papua New Guinea, and Vanuatu). Given the importance of *Pantawid Pamilya* in the social protection



Note: “Total social protection” is as defined in the Budget of Expenditures and Sources of Financing and includes social security, welfare, and employment.

Source: Department of Budget and Management, Budget of Expenditures and Sources of Financing (various years)

system and data constraints, this chapter focuses on analyzing the impact of the CCT rather than discussing the impact of other social protection programs.

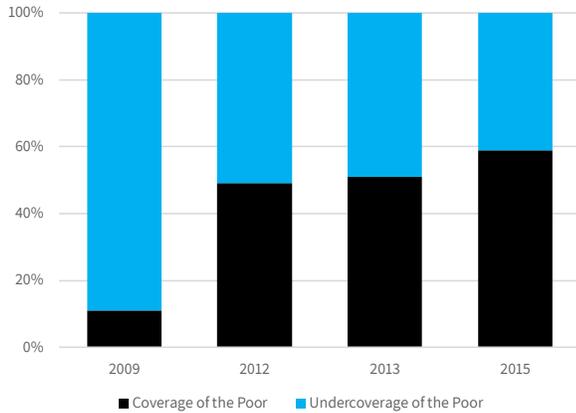
Impact of *Pantawid Pamilya* on Poverty Reduction

This section presents the results of an analysis for the Philippine CCT program using the latest National Household Survey data, including three rounds of the FIES (2009, 2012, and 2015) and the 2013 APIS of the PSA, complemented by available administrative data on the program’s budget and implementation. It uses benefit incidence analysis (BIA)⁵⁸ to evaluate the targeting performance and progressivity of the CCT program by looking at how beneficiaries and benefits (cash grants) are distributed between poor and non-poor households or across income or consumption groups. BIA assesses the poverty effect of the program by comparing standard poverty and inequality indicators (such as changes in poverty status, poverty gap, and income distribution) with and without a program, assuming all other components of a household’s income or spending patterns remain unchanged. It is important to keep this assumption in mind because it implies that results of a BIA do not account for possible changes in behavior due to the program intervention (for example, potential reduction in labor income for families in a program).

The coverage of *Pantawid Pamilya* expanded rapidly, from 11 percent of the eligible poor population in 2009 to 59 percent in 2015 (Figure 5.15). Of every four beneficiary households, three are from the “bottom 40,” or those who belong to the poorest 40 percent of the income range (Q1 + Q2 in Figure 5.16). This means that the program was able to maintain its poverty focus over the years. The CCT was also able to reach a greater share of the

58 See Annex K for details about BIA.

Figure 5.15. Coverage of the poor

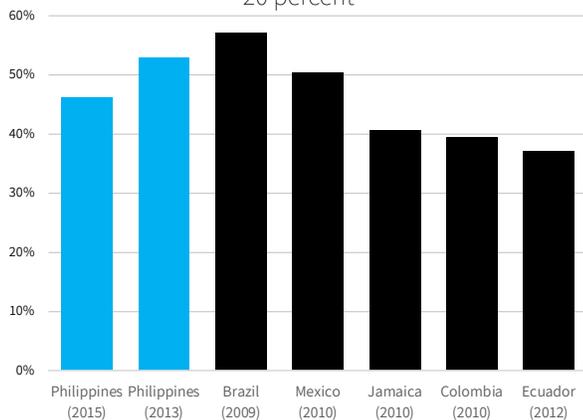


Source: Staff estimates using various rounds of FIES and APIS

bottom 20 (poorest 20 percent of the population) in comparison with other CCTs around the world (Figure 5.17).

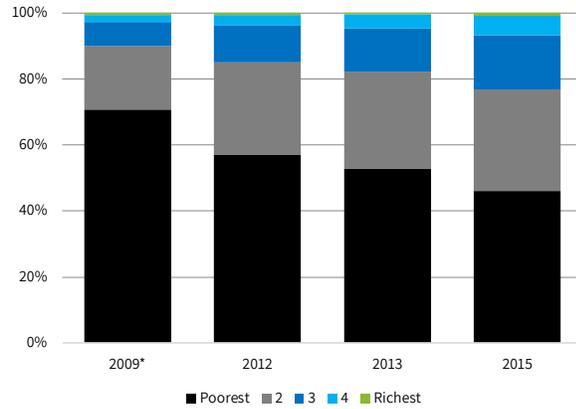
The amount of a monthly grant from *Pantawid Pamilya* is low (Figure 5.18). Beneficiary households received an average monthly grant of ₱117 (US\$2.43) per person in 2015. This means that for an average beneficiary household, with six members, a *Pantawid Pamilya* household received ₱701 (US\$14.60) each month, or about ₱8,408 (US\$175.17) for the full year of 2015. This corresponds to only 6 percent of beneficiary households' pre-transfer income in 2015 (9 percent for households in the bottom 20), and barely half (49 percent) of the maximum program entitlement of ₱17,000 per year if the household has two children in elementary school and one child in high school. In 2014, the expansion

Figure 5.17. Percentage of beneficiaries in the bottom 20 percent



Source: FIES 2015, APIS 2013, ASPIRE (accessed 23 June 2017)

Figure 5.16. Distribution of program beneficiaries

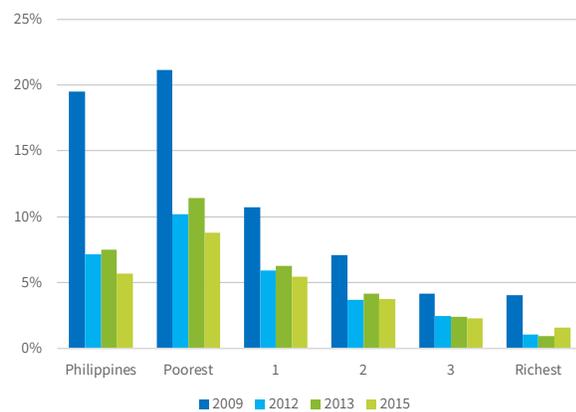


Source: Staff estimates using various rounds of FIES and APIS

of to cover 15–18-year-old children of beneficiary households was meant to augment the program's cash assistance.

Actual grants received may be this low for various reasons. One is that national surveys show that *Pantawid Pamilya* households, on average, only have two eligible children 3–18 years old. This means that many of them can receive a maximum of ₱12,000 per year—₱6,000 for health (₱500 for 12 months) and ₱6,000 for education (₱300 for 10 months for an average of 2 eligible children). Another reason may be delays in payment, which could arise from unreported changes in household information, such as transfer of residence or school of eligible children. Throughout 2016, some 7 million transactions related to beneficiary information updates were received by program implementers.

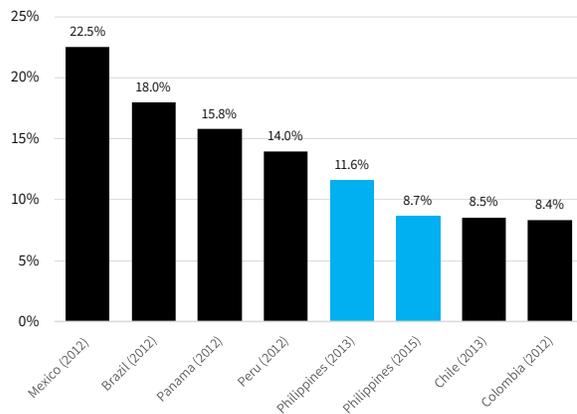
Figure 5.18. Generosity per quintile



Note: Percent to pre-transfer income.

Source: Staff estimates using various rounds of FIES and APIS

Figure 5.19. International comparison: generosity



Note: Percent to pre-transfer income, among bottom 20 only.

Source: Authors calculations based on FIES 2015 and World Bank ASPIRE databases for other countries

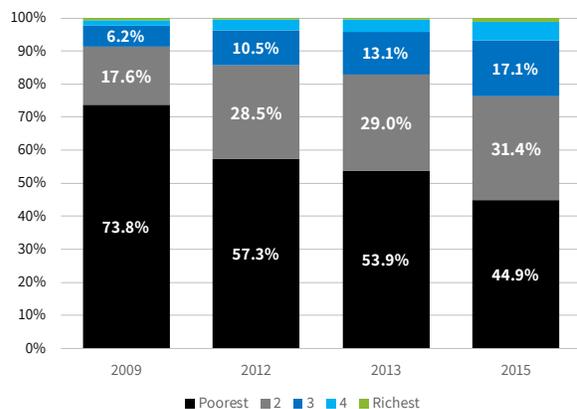
A great majority (80 percent) of these transactions were requests to update schools where children’s attendance should be monitored.

The *Pantawid* cash grants continued to decline in real value. The grant schedule has remained fixed since the pilot phase in 2007, so its value has been eroded by inflation over the years. While it started at about the same level of generosity as CCTs in other countries in its early phase of implementation (estimated at 23 percent of beneficiary households’ income), today it lags far behind the others, even after the additional ₱500 for high school children that was introduced in 2014 (Figure 5.19).⁵⁹

Pantawid Pamilya is progressive, with the greatest share of benefits going to the poorest households. The distribution of program benefits mirrors how well the program has been able to reach poor households in the bottom 20 or 40 percent. The biggest share of program benefits went to the poorest households (45 percent to Q1), and the share drops to nil in higher income groups (Figure 5.20). The Lorenz curve of the *Pantawid Pamilya* shows that the program is highly progressive, that is, the poorest are receiving a higher share of program benefits than their actual share in the national income distribution (Figure 5.21).

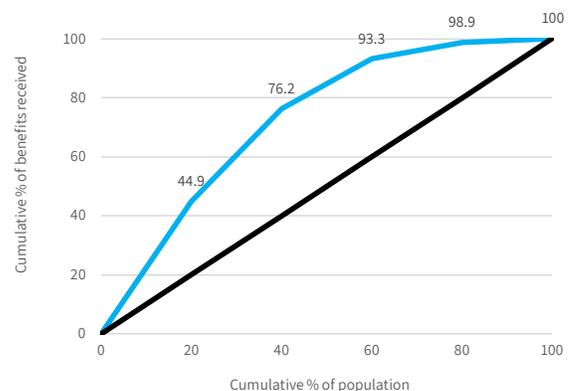
While the program remains progressive, its targeting performance has declined over the years, because it is still using an old targeting database. The share of program beneficiaries from the bottom 20 or 40 percent and the share of benefits they receive has continuously declined over the years. Some of the beneficiary families were living just above the poverty line (including some who crossed the poverty line thanks to the CCT). Being part of the *Pantawid* program as well as receiving other social assistance, including livelihood assistance can help lower the risk that they will fall back to poverty. In part, the decline in non-poor beneficiaries reflects the rollout plan (phases of expansion) of the program, which began by covering the poorest areas where the poorest households were located (such as in 2009), and gradually expanding to other areas in the country where potentially fewer poor households could be

Figure 5.20. Distribution of benefits, by income group



Source: Staff estimates using various rounds of FIES and APIS

Figure 5.21. Progressivity of the *Pantawid Pamilya*

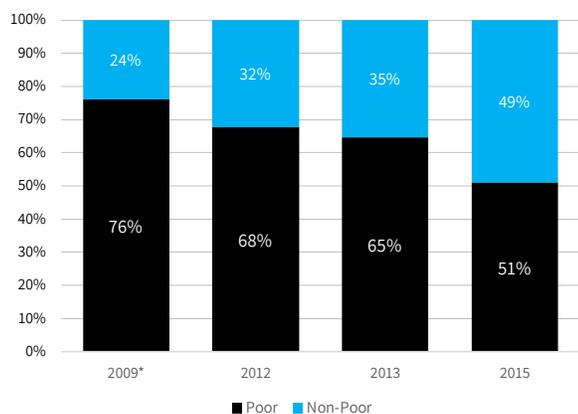


Source: Staff estimates using various rounds of FIES and APIS

59 The 2015 estimates do capture the additional cash assistance (rice subsidy) that started in January 2017.

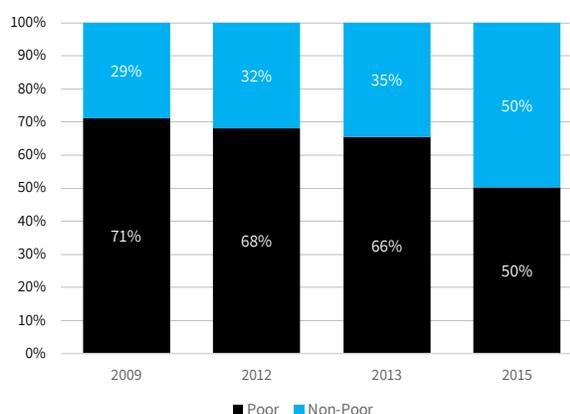


Figure 5.22. Distribution of beneficiaries, by poverty status



Source: Staff estimates using various rounds of FIES and APIS

Figure 5.23. Distribution of benefits, by poverty status



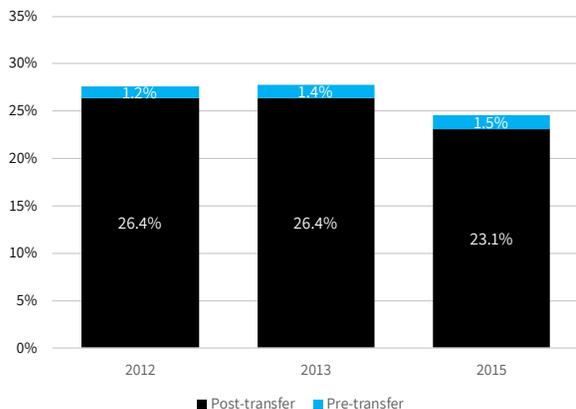
Source: Staff estimates using various rounds of FIES and APIS

enrolled in the program (such as in 2015). In part, it was also due to the use of *Listahanan* as a targeting system.⁶⁰ Over time, a larger share of its beneficiaries were the non-poor, and a larger share of the benefits went to the non-poor. In 2009, 76 percent of the program beneficiaries were poor compared with only 51 percent in 2015 (Figure 5.22); in 2009, 71 percent of the program benefit went to the poor, compared with only 50 percent in 2015 (Figure 5.23). This also resulted in increasing leakage rates (or the share of program grants that went to non-poor households). While 74 percent of program grants went to the bottom 20 in 2009, this declined to 45 percent by 2015 as increasing numbers of less-poor households were covered by the program.

Pantawid Pamilya has made an important contribution to reducing poverty among its 4.4 million beneficiary households. While the real value and progressivity of the program's cash grants may have declined over time, the latest National Household Survey shows that it remains an important resource for poor households. The ₱701 average grant received by beneficiary households every month allowed them to deal with one-fifth of their current income shortfall to afford to meet their basic needs. Without the cash assistance from *Pantawid*, poverty among beneficiaries would have been higher by 6 percentage points. Thus, the program kept nearly 1.5 million poor beneficiaries out of poverty in 2015.

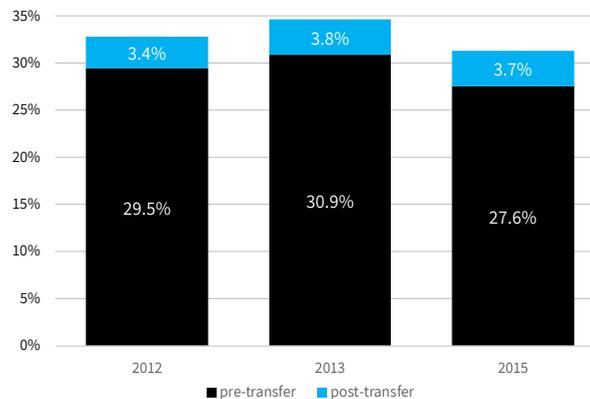
60 The *Listahanan* was intended to be updated every four years so that the list of poor households can be revalidated and refreshed, and can be used to update beneficiaries of the *Pantawid*. The database was updated in 2015, but, it remains unused by the government. DSWD will launch a post-implementation review of the *Listahanan* 2015 experience in 2018, which includes a pilot of tablet-assisted enumeration to explore the potential of using a more dynamic system in the next rounds.

Figure 5.24. Impact on national poverty rate



Source: Staff estimates using various rounds of FIES and APIS

Figure 5.25. Impact on national income gap



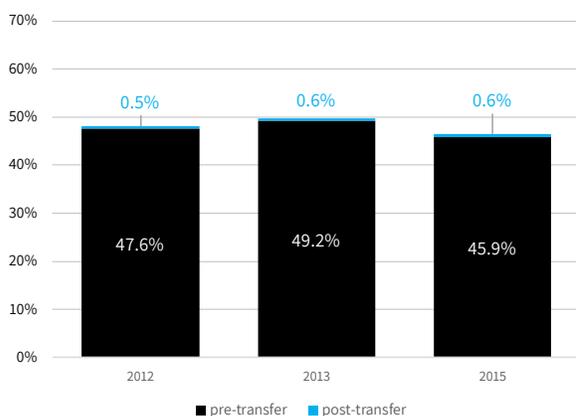
Source: Staff estimates using various rounds of FIES and APIS

At the national level, the cash grants were able to fill 3.7 percent of the income gap of poor households and resulted in a reduction in the poverty rate by 1.5 percentage points in 2015 (Figure 5.24 and Figure 5.25). The program’s poverty focus also helped reduce national income inequality by 0.6 percentage point (Figure 5.26). Among the beneficiaries, the poverty rate was 5.6 percentage point lower with the cash transfer (Figure 5.27).

In addition, *Pantawid Pamilya* provided households with a cushion against sudden income shocks in times of disaster and crisis. The program has a built-in mechanism to waive the application of education and health conditions in times of disaster or crisis in a project area. This was introduced into the program design through National Advisory Committee

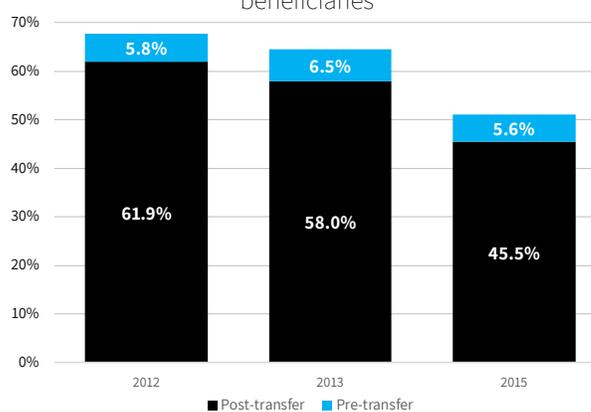
Resolution No. 13 in 2013 to allow flexibility in extending needed financial support to poor families. When schools, health facilities, and services may not be available due to disaster, cash grants are given to CCT beneficiaries without requiring compliance with program conditions for a period of one to six months, depending on the extent of calamity or crisis. This is consistent with the practice of other country CCTs being used as a crisis-response measure.⁶¹ This facility has been used by DSWD in many instances and was used most extensively after Typhoon Yolanda in November 2013. DSWD was able to quickly release ₱550.5 million (US\$12.5 million) of “unconditional” *Pantawid Pamilya* cash grants to Yolanda-affected CCT beneficiaries between November 2013 and February 2014—just three months after the disaster struck.

Figure 5.26. Impact on national income inequality



Source: Staff estimates using various rounds of FIES and APIS

Figure 5.27. Impact on poverty rate among beneficiaries



Source: Staff estimates using various rounds of FIES and APIS

61 Fiszbein, et al. (2011); Fiszbein and Schady (2009).

Impact of *Pantawid Pamilya* on Human Capital Building

Breaking the cycle of inequality of opportunity and inequality of outcomes and the consequent intergenerational poverty trap is crucial. This section draws on the results of two impact evaluations⁶² of the impact of the CCT program on human capital building. Overall, it can be seen that *Pantawid Pamilya* has contributed to building long-term human capital in recipient households.

Pantawid Pamilya improved school enrollment of older beneficiary children (above 12 years old). The World Bank impact evaluation (World Bank 2013a) found school enrollment is higher by 5 percentage points among *Pantawid* children aged 12–14 relative to their comparator group. Orbeta and others (2014) found that school enrollment among *Pantawid* children aged 12–15 is higher by 6 percentage points than among non-*Pantawid* children. These years are an especially important time for children to continue schooling and transition from grade school to high school, rather than dropping out to find work. Because near universal enrollment in elementary school has been achieved in most locations, the enrollment impact for children under age 11 in 2014 was limited (Figure 5.28).

Pantawid also has a positive impact on early childhood education. Orbeta and others showed that, while enrollment is the same for *Pantawid* and non-*Pantawid* children in preschool, *Pantawid* preschool children attend classes more regularly (Figure 5.29). Meanwhile, regular attendance rates for children aged six years and older are already too near universal to show discernible program impacts. For beneficiaries, this reflects high compliance with program conditions.

While the incidence of child labor is similar between *Pantawid* children and non-*Pantawid*

Figure 5.28. Impacts on school enrollment

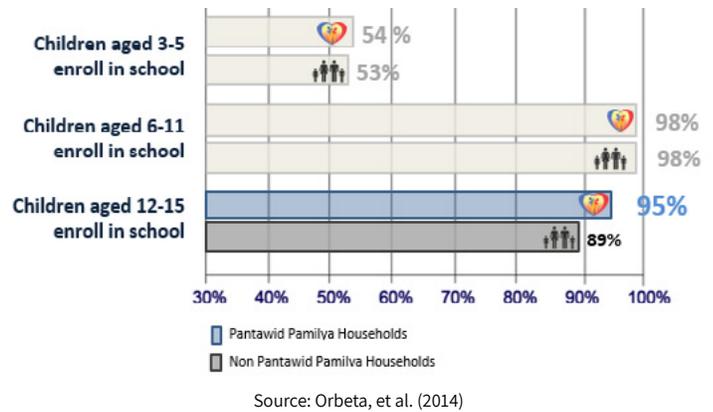
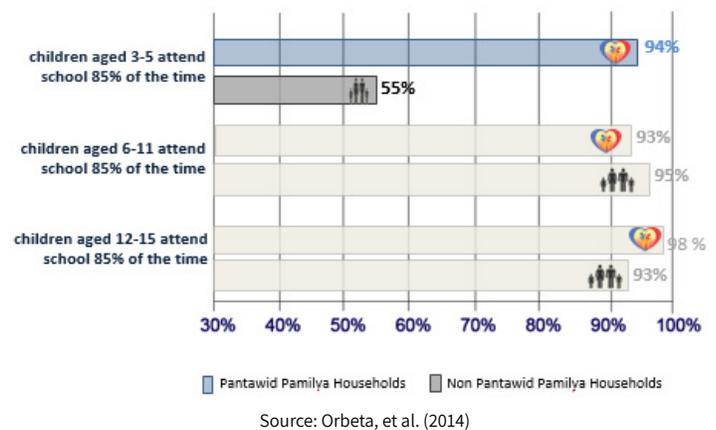


Figure 5.29. Impacts on school attendance



children, *Pantawid* children work fewer days compared with non-*Pantawid* children. Orbeta and others showed that *Pantawid* children worked 7 fewer days a month than non-*Pantawid* children.

There is no evidence that *Pantawid* discourages labor participation of adult members in the household. Orbeta and others showed that the proportion of working-age household members who are employed and want to have extra work is higher among *Pantawid* households (17 percent) than among their non-*Pantawid* counterparts (11 percent). Labor force participation, employment rates, and average number of working hours among working household members do not differ between *Pantawid* and non-*Pantawid* households.

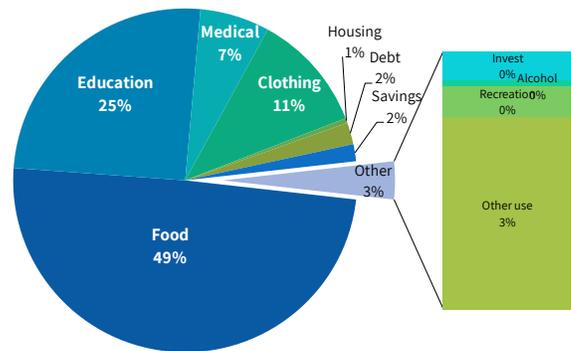
62 World Bank (2013) used a randomized control design. Orbeta, and others (2014) used a regression discontinuity design. See Annex L for details.

Regarding the effect of the CCT on remittances, analysis indicates no significant impact. While there might be a slight negative correlation between being a recipient of the CCT and the receipt of remittances, the small amount of the CCT cash grant means the effect of the grants on the amount of the remittances received is limited.⁶³ There is no evidence that the expansion of *Pantawid* will significantly reduce remittances.

Pantawid Pamilya increased the health-seeking behavior of beneficiaries, and mothers seek better maternal care services. Orbeta and others found that in the past five years, around 70 percent of *Pantawid* mothers deliver in Department of Health–accredited health facilities, compared with only 56 percent among non-*Pantawid* mothers. Both evaluations found that the program increased the rate of postnatal check-ups (10 percentage points in the World Bank study and 21 points in Orbeta and others). Both evaluations also found that more *Pantawid* children below age six received iron supplements and vitamin A than non-*Pantawid* children, more *Pantawid* children underwent regular weight monitoring, and more *Pantawid* children aged 6–11 also received at least one deworming pill per year.

Beneficiary households prioritized spending for education and health. Both evaluations found that *Pantawid Pamilya* beneficiaries spend more for education and health than the comparator group. The most recent evaluation found that the annual educational expenditure per school-aged child among *Pantawid* households is higher by 82 percent than among non-*Pantawid* households.⁶⁴ Similarly, the World Bank study found that *Pantawid* households spend more on education and health per capita by 34 percent and 38 percent, respectively, than non-*Pantawid* households. The same study also found that *Pantawid* households spend more by 38 percent on protein-rich food, such as dairy products and eggs, a behavior observed widely in CCT evaluations around the world. Consequently, the World Bank study found a reduction in severe

Figure 5.30. Reported utilization of *Pantawid* cash grants



Source: FIES 2012

stunting among young *Pantawid* children aged 6–36 months. However, Orbeta and others found no difference in overall nutritional status between *Pantawid* and non-*Pantawid* children.

At the same time, *Pantawid Pamilya* does not induce beneficiaries to gamble or consume more alcohol and tobacco. Orbeta and others found no statistical difference between the expenditures of *Pantawid* and non-*Pantawid* households for these goods, while the World Bank study found that *Pantawid* households spend less on alcohol by 39 percent than non-*Pantawid* households. This is consistent with beneficiaries’ reported use of the cash grants as captured in the National Household Survey in 2012 (Figure 5.30).

Women in the program were encouraged to try modern reproductive health methods at least once through family development sessions (FDS).⁶⁵ Orbeta and others found that the program had a significant impact on encouraging women to do so. The program also led to an increased use of modern and responsible family planning methods by 6 percentage points, from the baseline of 68 percent among 15–49-year-old women who gave birth in the last 5 years. However, the study found that the FDS leads only to increased trial use, not in sustained use of these methods.

63 See Annex J for details.

64 World Bank (2013) used a randomized control design. Orbeta, and others (2014) used a regression discontinuity design. See Annex K for details.

65 Discussions on family planning during an FDS seeks to inform parents about the benefits of modern and responsible family planning that could lead to changes in behavior concerning reproductive health.



CHAPTER SIX

Constraints on Poverty Reduction and Potential Policy Remedies

Constraints on Poverty Reduction | Potential Policy Remedies

Constraints on Poverty Reduction and Potential Policy Remedies

The Philippines has solid macroeconomic fundamentals, and its growth prospects remain positive. With a healthy current account, strong international reserves, significant fiscal space, and low and stable inflation, the economy is in a strong position to apply multiple policy tools to seize opportunities, mitigate regional and global shocks, and provide the basis for productive job creation and poverty reduction.

Despite economic growth over the past decade, the rate of poverty reduction in the Philippines has lagged that of many of its East Asian neighbors. The pace of extreme poverty reduction in the Philippines averaged 0.9 percentage points per year between 2006 and 2015, less than half the 1.4 points per year decline in the developing world overall and much slower than China, Indonesia, or Vietnam. In part the sluggish pace of poverty reduction could be ascribed to long-standing policy distortions, including a protracted implementation of the land reform programs and unclear property rights, as well as competition and labor market regulations that undermine the potential to make growth more inclusive. However, the main reasons poverty in the Philippines did not decline as fast as in other countries in the East Asia and Pacific Region include: lower pace and less pro-poor pattern of growth, high inequality of income and wealth, and disasters and conflict.

Making the pattern of growth more inclusive, particularly providing more well-paying jobs, will help people to achieve higher and more stable incomes. The government can help end the vicious cycle of unequal opportunity and outcomes that trap people in poverty, as well as establish mutually reinforcing positive cycles that will create a growing middle class that is well-integrated with other groups. It can help improve service delivery for all and increase non-farm wage employment opportunities through increased demand for manufacturing goods and services. Finally, more progressive and better-administered taxes can help finance needed investments in both physical and human capital.

Strong economic growth will be the basis for productive job creation and poverty reduction. In the long run, productivity will be fundamental. Addressing the key factors identified in this report—creating more well-paying jobs; improving productivity in all sectors, including agriculture; reducing income and wealth inequality through more investment in people and skill development; rebuilding conflict-affected areas of Mindanao; and better managing risk and protecting the vulnerable—can help accelerate poverty reduction.



Constraints on Poverty Reduction

Three constraints have trapped people in a vicious cycle of “low skills and low wages” and “low investment and low-quality jobs.” A significant share of the poor are working poor in unproductive jobs or involuntary underemployment. In the past decade, employment grew at roughly the same rate as the working-age population, but only a fraction of the jobs created were well-paying jobs. During 2006–2015, the average real wage for the overall workforce⁶⁶ increased only 4 percent over a period of 10 years, and real wages for the highly skilled (with complete college educations) increased only 2 percent, which indicates low effective demand in the labor market, particularly for the skilled. Addressing these challenges will require solutions on the demand side, to move up the value chain and create more gainful employment opportunities, and on the supply side, to equip the labor force with better education and skills.

Constraint #1: Inequality of incomes and wealth.

The highly unequal distribution of incomes and wealth may have negatively affected the business environment, limiting long-term investment, inclusive growth, and productive job creation.

Wealth is highly concentrated in a small share of the population, giving them a strong interest in maintaining the status quo. This could hinder implementation of the reforms needed to facilitate more inclusive growth and poverty reduction. In the past, elite capture and corruption have been corrosive, not only to public service delivery but also to overall political and economic performance. The risk of elite capture has limited the attractiveness of long-term (foreign and domestic) investment, particularly infrastructure investment, which has aggravated regional disparities. Long-overdue land reforms and unclear property rights have similarly discouraged investment in agriculture. With a low rate of investment (20 percent of GDP), the economy is largely driven by consumption, which limits the potential for rapid structural transformation and increased productivity.

Constraint #2: Low and inequitable distribution of human capital.

The learning outcomes in the Philippines are the weakest among major countries in East Asia. The country failed to meet MDG targets for child and maternal health in 2015. The poor segment of the population suffers disproportionately from the low endowment of human capital. Twenty percent of children under age five are malnourished and stunted.⁶⁷ Children from poor households have limited education. In the

66 Due to the data limitation, the analysis of real wage covers the workers who reported positive wage only. The earning of those self-employed and work without paid are not included in the statistics.

67 Source: FNRI (2013 estimate based on 2013 National Nutrition Survey).



labor force, for the poor households, only 31 percent of the poor have completed secondary education and 2 percent tertiary education, compared with 59 percent and 15 percent of the non-poor, respectively. The low level of education and skills renders the poor uncompetitive for productive jobs in formal sectors, such as high-end services or business process outsourcing (BPO) jobs, which require tertiary education. This constrains the total supply of skilled labor, which dampens the business environment for investors, perpetuating the cycle of inequality of opportunity and inequality of outcomes.

Constraint #3: Natural disasters and conflict.

Frequent natural disasters, including deadly typhoons that disproportionately hit poor regions, persistent conflicts in parts of Mindanao, and global economic crises continually push vulnerable groups into poverty and jeopardize long-term human capital development. While the economy has been resilient and recovered swiftly from global crises—due to sound macroeconomic fundamentals and strong flows of remittances (which cushioned household

consumption and increased both in real terms and as a share of total household income in 2009, despite the crises; World Bank Group 2012b)—as in many other countries, the poor and vulnerable in the Philippines suffered more from external shocks than the rich, and the poverty rate spiked following these shocks. The global financial crisis, the food and fuel crises, and several highly destructive typhoons in 2008–2009 increased poverty by an estimated 4 percentage points, or an additional 3 million people, and Typhoon Yolanda alone pushed millions into poverty. As weather patterns shift the path of seasonal natural disasters, and with the possible intensification of the El Niño, the poorest regions of the country, where agriculture is the predominant economic activity and the capacity to manage risk is particularly weak, face increased vulnerability to shocks. The high level of natural disaster risks reduced the risk taking of households and firms, through lower investment or the selection of “safer” and less promising technologies, which in turn would lead to a reduction in growth and job creation.⁶⁸

⁶⁸ See Annex C for details and a review of literature.

Potential Policy Remedies

Addressing the three key constraints and tackling their adverse consequences can help clarify how best to achieve faster poverty reduction. Six ways are proposed to achieve more rapid and inclusive growth, tackle inequality of opportunity and outcomes, reduce conflict and vulnerability, and protect the poor.

Facilitate the creation of more well-paying jobs.

A significant share of the poor is working in jobs with very low wages or are mired in involuntary underemployment. In the past decade, employment grew at roughly the same rate as the working-age population, but a large portion of those jobs are poorly paid. Nearly 95 percent of the population in the labor force is employed. However, some 20 percent is underemployed, and to the extreme, some household might earn as little as 50–100 pesos (US\$1–2) a day. Many urban poor are trapped in low-wage and low-productivity jobs in the informal service sector. Support for the creation of more well-paying jobs, particularly semi-skilled jobs, for the majority of today's labor force who have less than a high school education, can help reduce poverty and address inequality through higher wage incomes.

- **Improve the business environment to attract more investment.** Underinvestment in human and physical capital has been a major constraint to improved labor productivity and has resulted in the low quality and high informality of jobs. Compared with most high-performing countries in East Asia, the Philippines investment-to-GDP ratio is low. Investment in productive capacity, in particular, has lagged in the manufacturing sector. To attract more private investment, the business environment needs to be improved, particularly through addressing institutional constraints, strengthening competition in key sectors, securing property rights, providing risk management solutions, and simplifying business regulations. To attract foreign and domestic investment, the government can play a key role by improving infrastructure and basic services delivery, as well as by providing targeted support to the self-employed or those working in small and medium-size enterprises, where large numbers of the poor are employed
- **Upgrade value chains to support strong and sustainable growth.** Improve labor productivity and moving up the value chains are a proven basis for creating more well-paying jobs. The Philippines has gone from being an agricultural economy to a (low-



end) service economy, without developing a manufacturing sector. Labor productivity growth mainly stems from within-sector productivity growth. This is contrary to the development patterns of many neighboring countries in East Asia, where booming manufacturing sectors created large numbers of labor-intensive jobs, absorbing the surplus labor from agriculture. It is an ongoing debate whether manufacturing can still deliver the same productivity gains and well-paid employment opportunities for the unskilled workers as in the past. The Philippines needs to find its specific niches in the services sector and in regional and global value chains to capitalize on its growing services sector and enhance the productivity gains from structural transformation.

- **Strengthen backward and forward linkages to build on the comparative advantages of skilled labor and create jobs for the unskilled.**

Linkages between the services sector and manufacturing and agriculture are critical to upgrading the domestic value. This would include proficiency in English and good information technology skills, as well as taking advantages of the time zone. In doing so, the Philippines could leverage strong performance in business process outsourcing to expand

other service-based sectors, such as tourism. This, in turn, could contribute to successful transformation by creating more productive employment opportunities, including opportunities with skill requirements compatible with those of individuals from poor households.

Improve productivity in all sectors, especially agriculture.

The Philippines is a middle-income country whose economy is becoming less dependent on agriculture for output and employment. Nevertheless, agriculture remains important for poverty reduction and employment as well as sustainable and equitable growth. Compared with many countries in the region, the sector performs below its potential for contributing to growth, employment, and poverty reduction. Improvements in productivity, diversification, and value-addition are crucial, as well as progress in making agriculture more resilient to natural disasters and climate change.

- **Increase agricultural productivity.** Over the past decade, productivity growth in the Philippines has lagged that of the best performers in East Asia, including China, Indonesia, and Vietnam. Agricultural





productivity has been low and stagnant for 30 years. Farmers and fisherfolk remain among the poorest in the rural areas. Reasons for the persistent low productivity of agriculture include high input costs; small land sizes; insufficient ability to manage rainfall variability and other natural hazards; limited and untimely access to finance, applied research, and extension services; and limited connectivity and links to market outlets. As evidenced in other middle-income countries in the region, structural transformation will attract workers out of agriculture as the manufacturing and service sectors expand. However, agriculture continues to be a large employer and absorption of surplus labor by manufacturing and service sectors is not undertaken at a fast pace, at least in the short run. Improving income from agriculture will help address persistent poverty issues and contribute to employment opportunities in rural areas.

- **Support agribusiness and broader value chain development.** Within the structural transformation agenda, the role of agriculture is evolving, although slowly. The share of agribusiness in the GDP of several countries in the region undergoing structural transformation is higher than that of agriculture (agribusiness accounts for 33 percent of GDP in Indonesia, 43 percent in Thailand, and 15 percent in the Philippines, which is higher than the agriculture share in GDP).⁶⁹ As agriculture's share of GDP continues to fall and incomes and urbanization rise, the composition of agricultural output changes as part of agricultural diversification. To reduce poverty in rural areas, support will be needed for agricultural development and diversification through support for the development of agribusiness, bringing in various input providers and agro-processors, distributors, and retailers for value chain development.

69 See Oyelaran-Oyeyinka et al. (2017) for details.

Ensure that Filipinos acquire the skills they need for the 21st century economy.

In recent years, the Philippines has made admirable strides in education. Critical advances have been the creation of both universal kindergarten and senior high school education, with the first cohort of grade 12 students graduating in 2018. Key challenges now include making sure students in school are learning, reducing high dropout rates for the poor, and developing socioemotional skills.

- **Boost learning in basic education overall and increase secondary enrollment and completion among the poor.**

To close gaps in education, two principle challenges remain. The first is that despite a high level of commitment by teachers and improved learning environment, learning outcomes are weak. The Philippines' experience is similar to that of many countries around the world that have boosted school completion rates but still face quality challenges, which globally constitutes what the 2018 World Development Report (World Bank 2017j) terms a "learning crisis." The second challenge is that secondary enrollment is low and dropout rate remain high among the poor beyond primary level. The returns to education are high at college levels, but many among the poor are not

completing high school. Improving education quality principally requires equipping teachers with the tools they need via effective training and materials. Improvements of quality will help address the second challenge, by attracting more students to stay in school. Other critical priorities are continuing efforts to improve budget execution and the effective use of public education funds. Strengthening collection of learning outcome data including participation to the international standardized students' assessments and use of the data to determine the direction of the ongoing basic education reform will be important.

- **Develop socioemotional skills in addition to traditional technical skills and cognitive skills.**

A recent World Bank report shows the growing importance of socioemotional skills for competitiveness in the global economy. A higher level of socioemotional skills is associated with greater probability of being employed and with higher daily earning. Therefore, worker competitiveness increasingly requires not only traditional technical and cognitive skills but also improved socioemotional skills. Moreover, such skills are associated with the greatest wage differential among workers with low educational levels. As a substitute for, instead of complement to, traditional technical and cognitive skills, socioemotional skills can offer





a route to higher earnings for workers with limited formal education. To take advantage of this insight it will be necessary to develop teacher preparedness and training to actively foster these skills in all education and training, including early childhood education, K–12 education, and tertiary education, as well as regular and vocational training.

Invest in health and nutrition.

Although the Philippines aims to achieve universal health coverage, it still has weakness in de facto health access and quality, rates of child malnutrition remain high, and the country has faced challenges in implementing its reproductive health policies. A series of efforts in these areas are needed to boost human capital and make possible a demographic dividend.

- **Boost health care quality and equity.**

The Philippines has made great progress in expanding access to health care via the Philippines Health Insurance Program

(PhilHealth). However, the scope and quality of care available in public facilities remains limited and uneven. To break the cycle of poor health and poor income, public investment in health care needs to be improved to ensure easy access to basic good-quality care and alleviate the burdens of out-of-pocket payment. The top policy priority is to expand the essential health benefits package available to the poor. The next priority is to develop a national strategy for quality of health care improvement. A third is to ensure that all of those who qualify for PhilHealth coverage are enrolled and are aware that they are insured. Limited and uneven access and quality of health care contribute to the general health challenges of the poor as well as to weaknesses in reproductive health and nutrition as well as general health challenges of the poor.

- **Reduce child stunting.** One in three children in the Philippines under age 5 is stunted—the principal marker of malnutrition—and stunting rates have been stagnant over a decade, even as other socioeconomic indicators

have seen progress. Malnutrition in the womb and during the first two years of life inhibits brain development, resulting in lower levels of schooling, reduced cognitive function, and lower earnings later in life. The returns from investments to reduce malnutrition are extraordinarily high in the Philippines: each peso invested results in a return of 44 pesos. The Philippine Plan of Action for Nutrition provides a solid framework for tackling the challenge. The critical needs are to focus health interventions on the “first 1000 days” of a child’s life from conception through the first two years of life, combined with multisector efforts involving education, social protection, agriculture, and water and sanitation.

- **Fully implement the Responsible Parenthood and Reproductive Health (RPRH) Law.** Filipino women in the poorest quintile have more than five children on average and the fertility rate has been steady in the past decades. One in ten girls age 15-19 is either pregnant or already a mother. An increase in adolescent pregnancy means higher maternal and infant mortality, as well as more school dropouts. At a macro level, the slow decline of fertility has robbed the Philippines the opportunity for a “demographic

dividend” of the sort that has been important in economic development across East Asia. The total wanted fertility rate for the Philippines is 2.2 births per woman, 27 percent lower than the actual fertility rate of 3.0 (recent DHS 2017 shows that total fertility rate has declined to 2.7 births per woman). One important measure is to help households meet their need for family planning. A recent study based on a natural experiment in Manila shows that reducing access to family planning increases family size and decreases education attainment. Following through on the commitments of the 2012 RPRH Law will allow informed parents to make their own choices and achieve their desired family size. A recent study estimated the economic gains from a full implementation of the RPRH law and suggested helping couples achieve the desired number of children can potentially have substantial economic benefits in terms of more rapid economic growth. Critical aspects of the law that need to be fully implemented include expanding access to a wide range of modern and responsible family planning, especially for the poor, as well as Comprehensive Sexuality Education to reduce teen pregnancies.





Focus poverty reduction efforts on Mindanao.

As the region is home to two-fifths of the poor, little progress on poverty is possible without inclusive growth in Mindanao. Five decades of violence has depressed growth and poverty reduction. Conflict has affected over 60 percent of Mindanao's population. Over 50 percent of the population in ARMM lives below the poverty line. Economic progress and poverty reduction in the Philippines will depend on the success of development in Mindanao. This will mean drawing on the region's untapped potential, linking lagging areas to growth centers, and strengthening peace-building efforts in conflict-affected areas to break the cycles of insecurity.

- **Increase broad public investment in Mindanao.** Increasing public investment in Mindanao to boost development in areas where the bulk of the poor live would provide the basis for generating opportunities. As three-fifths of Mindanao's production and employment is driven by agricultural value chains, investment is particularly needed to support the agriculture sector and improve connectivity. Complementary efforts are

needed to build human capital in Mindanao and strengthen local governance.

- **Support efforts to resolve conflict and bring peace to Mindanao.** Breaking the cycle of insecurity and reducing the risk of its recurrence requires a virtuous spiral of restoring confidence in collective action between groups who have been in conflict and transforming institutions to provide a sustained level of security, justice, and jobs. This can be accomplished through two key steps: 1) Creating productive employment opportunities, particularly for youth, who might otherwise be tempted to join extremists' armed groups or organized crime; 2) Delivering government programs and basic services more effectively, which could help anchor stabilization; and 3) Increasing programs to build human capital by expanding coverage of basic services, including health, education and skills development. Ultimately, enduring peace and development will hinge on the success of a political solution that addresses the causes of violence—injustice, weak governance, land dispossession, discrimination, and sociocultural marginalization.

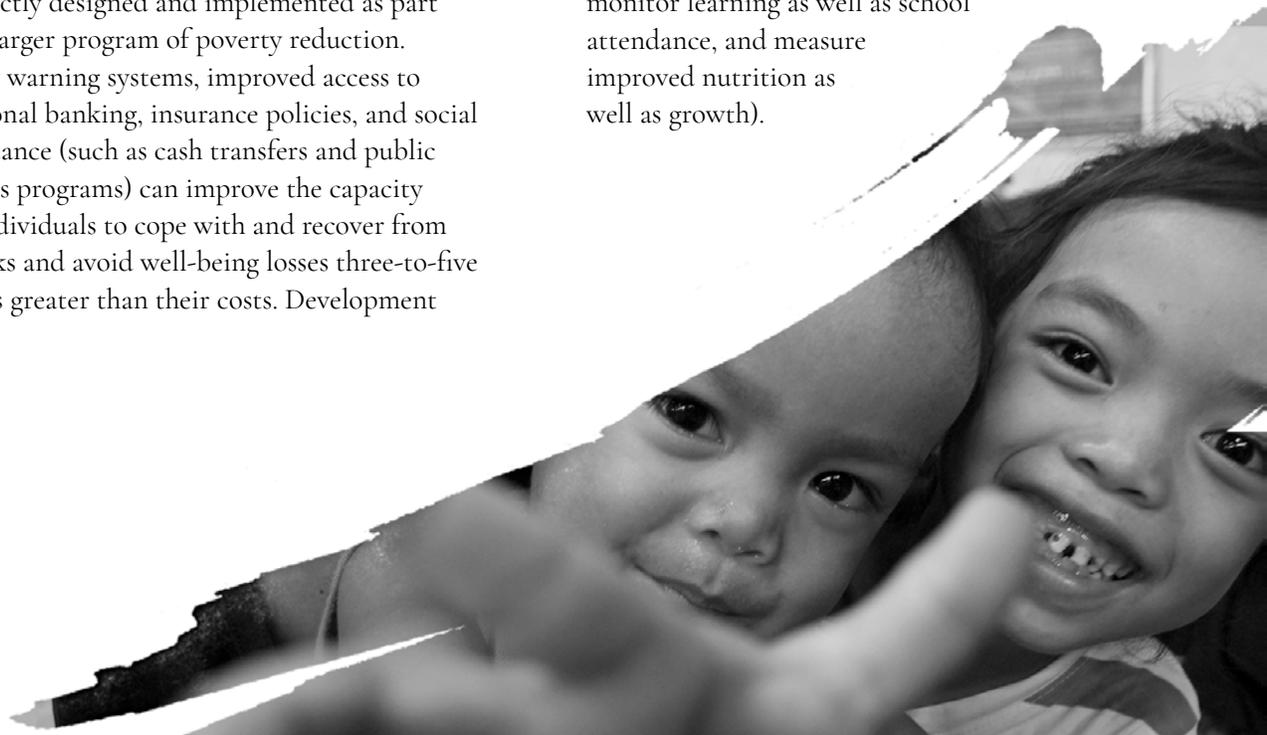
Manage risks and protect the vulnerable.

Poor people are more vulnerable to negative shocks. They are more exposed to the risks through lack of resources, more sensitive to the impacts due to an inability to cope with them, and lack the capacity needed to adapt to potential risks and therefore suffer repeated setbacks. Children from poor families are particularly vulnerable not getting the needed education and health care. Providing targeted support to the poor and vulnerable to mitigate shocks, build up human capital, and provide an effective safety net for those times when it is needed, is crucial. Managing risks and protecting the vulnerable not only protects public investments in individuals and private assets, it also supports broader growth and capital accumulation through reducing repeated losses of physical and human capital, and through increasing the acceptable thresholds of natural risks for investors.

- **Improve natural disaster risk management systems.** Poor people are more exposed to negative shocks—they are more likely to live in flood-prone areas in fragile housing, with a large share of their meager income spent on staples—and are more vulnerable given their lack of capacity for prevention and limited ability to cope with and recover from shocks. Effective disaster prevention measures can yield high returns, especially when they are correctly designed and implemented as part of a larger program of poverty reduction. Early warning systems, improved access to personal banking, insurance policies, and social assistance (such as cash transfers and public works programs) can improve the capacity of individuals to cope with and recover from shocks and avoid well-being losses three-to-five times greater than their costs. Development

of post-disaster support systems, including social safety nets, remittances, insurance, and other financial instruments can mitigate the well-being losses of the poorest Filipinos from natural disasters, even without directly reducing asset losses.

- **Strengthen social protection systems.** The Pantawid Pamilya conditional cash transfer program has helped to provide poor households with much-needed financial augmentation to meet basic needs, and it has provided an incentive to keep poor households' children in school and healthy. It is important to continue the cash assistance to poor cover all poor households with children and to increase the amount of transfers to sustain and enhance the gains, and to keep the convergence of government efforts—in raising demand-side pressures and supply-side responses—to maintain the program's effectiveness in achieving outcomes. To ensure that the program keeps up with the evolving needs of poor beneficiaries, several improvements need to be considered. First, targeting efficiency can be improved through regular updating of the roster of potential conditional cash transfer beneficiaries in the Listahanan and by using the most updated database. Second, to strengthen the impact on building human capital, it is important to move beyond access to measure and monitor quality (that is, monitor learning as well as school attendance, and measure improved nutrition as well as growth).



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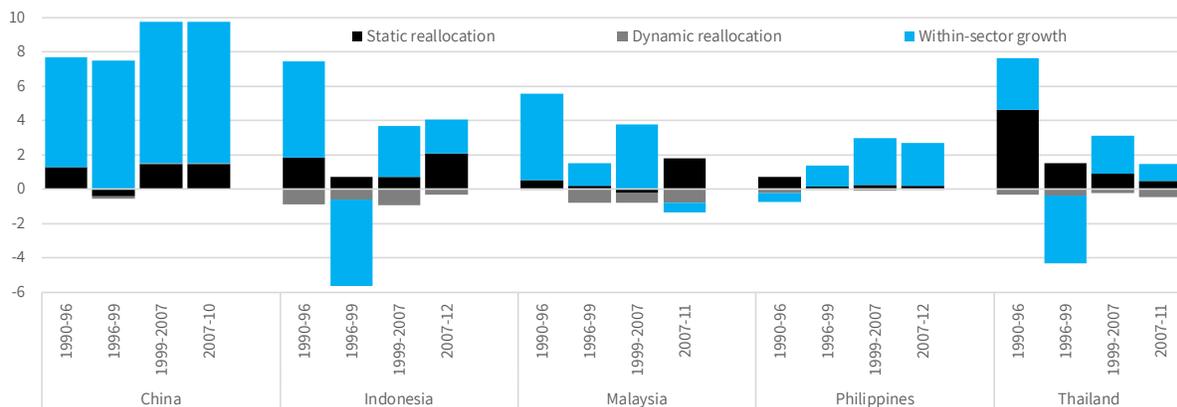
Annexes

Intersectoral Labor Allocation

Compared with other East Asian countries, including China, Indonesia, Malaysia, and Thailand, labor productivity growth in the Philippines disproportionately relies on within-sector productivity growth (Figure A.1). In other words, the reallocation of labor toward sectors with higher productivity (or “static reallocation”) or faster productivity growth (or “dynamic reallocation”), including from agriculture toward non-agricultural activities such as manufacturing, construction, and services, was more limited in the Philippines over the past decade than in many other East Asian countries.

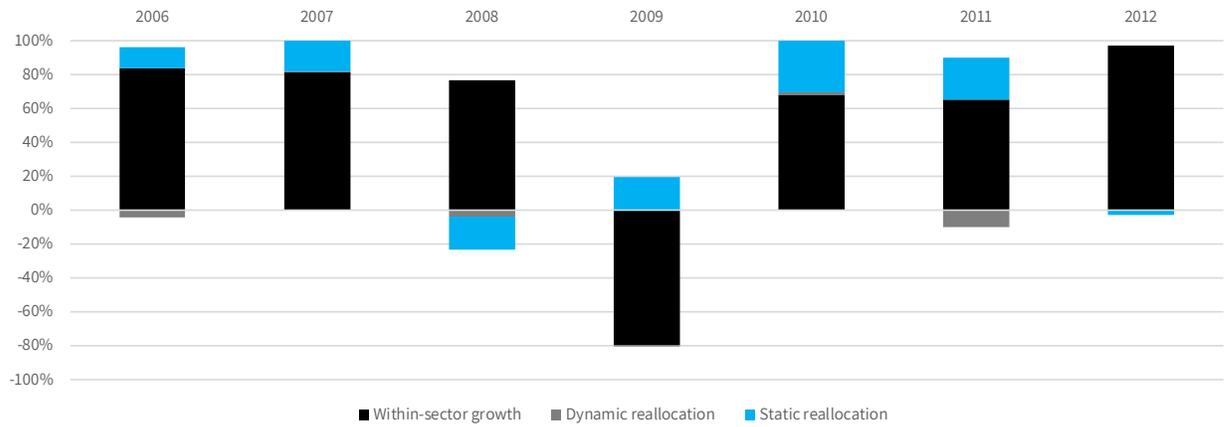
Within-sector productivity growth was consistently the major driving force for labor productivity growth (Figure A.2). In 2015, roughly 100 percent of the labor productivity growth stemmed from within-sector productivity growth. The role of resource reallocation or structural transformation was negligible. Over the seven-year period 2006–2012 (when comparable data are available), the contribution of dynamic reallocation to labor productivity growth was negative in four years. In other words, resources were reallocated to the sectors with slower growth.

Figure A.1. Intersectoral labor allocation in selected East Asian countries



Source: cited from EAP update, April 2017, page 66. Staff estimates based on data from the Groningen Growth and Development Centre 10-Sector Database; www.rug.nl/ggdc/productivity/10-sector

Figure A.2. Intersectoral labor reallocation in the Philippines



Source: reproduced drawing from the data used in EAP Update, April 2017

Income Structure of Agriculture Households and Agriculture Sector Income and Employment Shares

Income structure of agriculture households

Agriculture accounts for nearly three-quarters of total household income. Of this, three-fifths is from enterprise activities. Other income sources that matter are remittances (mostly from domestic sources), salaries from non-agriculture sources and rental value of dwellings.

Figure B.1. Components of Agriculture Household Incomes

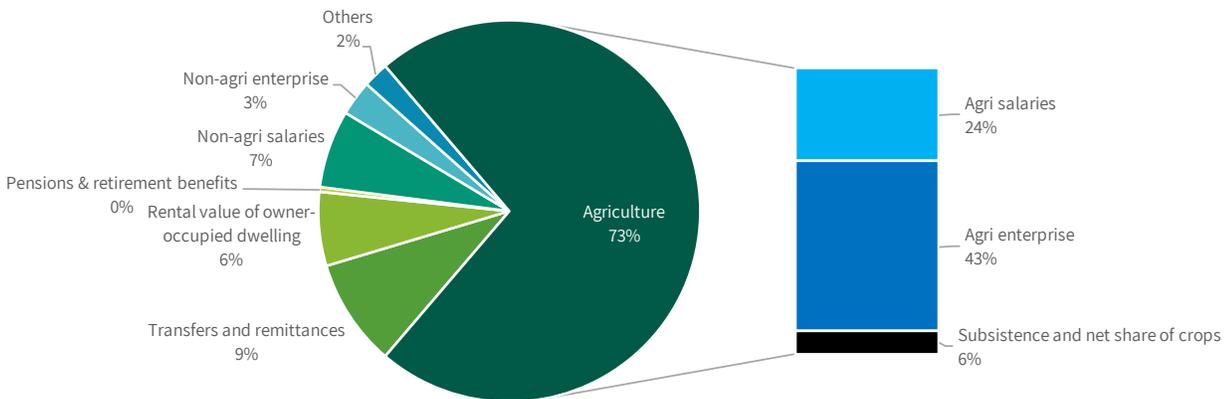


Table B.1. Components of household income

| Income source | Agri HHs | Rural HHs | Poor HHs | Poor agri HHs | Agri in rural HHs |
|---|----------|-----------|----------|---------------|-------------------|
| Salaries and wages | | | | | |
| Non-agriculture | 7% | 36% | 26% | 5% | 6% |
| Agriculture | 24% | 6% | 15% | 30% | 22% |
| Entrepreneurial incomes | | | | | |
| Non-agriculture | 3% | 13% | 9% | 2% | 3% |
| Agriculture | 43% | 12% | 18% | 36% | 44% |
| Transfers and remittances | | | | | |
| Foreign | 2% | 10% | 2% | 1% | 2% |
| Domestic | | | | | |
| Government | 3% | 2% | 6% | 6% | 4% |
| Private institutions | 0% | 0% | 0% | 0% | 0% |
| Other households | 4% | 5% | 7% | 4% | 4% |
| Rental value of owner-occupied dwelling | 6% | 7% | 7% | 6% | 6% |
| Pensions and retirement benefits | 0% | 3% | 1% | 0% | 0% |
| Other agriculture-related sources | 6% | 3% | 5% | 7% | 6% |
| Others | 2% | 4% | 3% | 2% | 2% |

Agriculture sub-sector income shares

Incomes reported in FIES can be classified into sub-categories. The following table shows the respective share of every sub-sector for income grouping. For wages, over 40 percent comes from seasonal jobs in agriculture, followed by regular agricultural labor sources with 36 percent.

For agriculture enterprises, majority comprises crop farming (70 percent) and fisheries (21 percent). Trade and manufacturing account for almost three-quarters of non-agriculture enterprises. They are very relevant particularly for poor agricultural households with 56 percent engaged in trading and 17 percent in manufacturing (processing and/or marketing of their agricultural products). Other significant source are transportation and communication which are closely linked to the primary source of household income. Subsistence farming among agriculture households accounts for a small share of total income (about 4 percent) of which half is from logging and a third from cultivated crops. Most farm households are selling, processing, and marketing some of their produce.

Table B.2. Breakdown of income shares by household

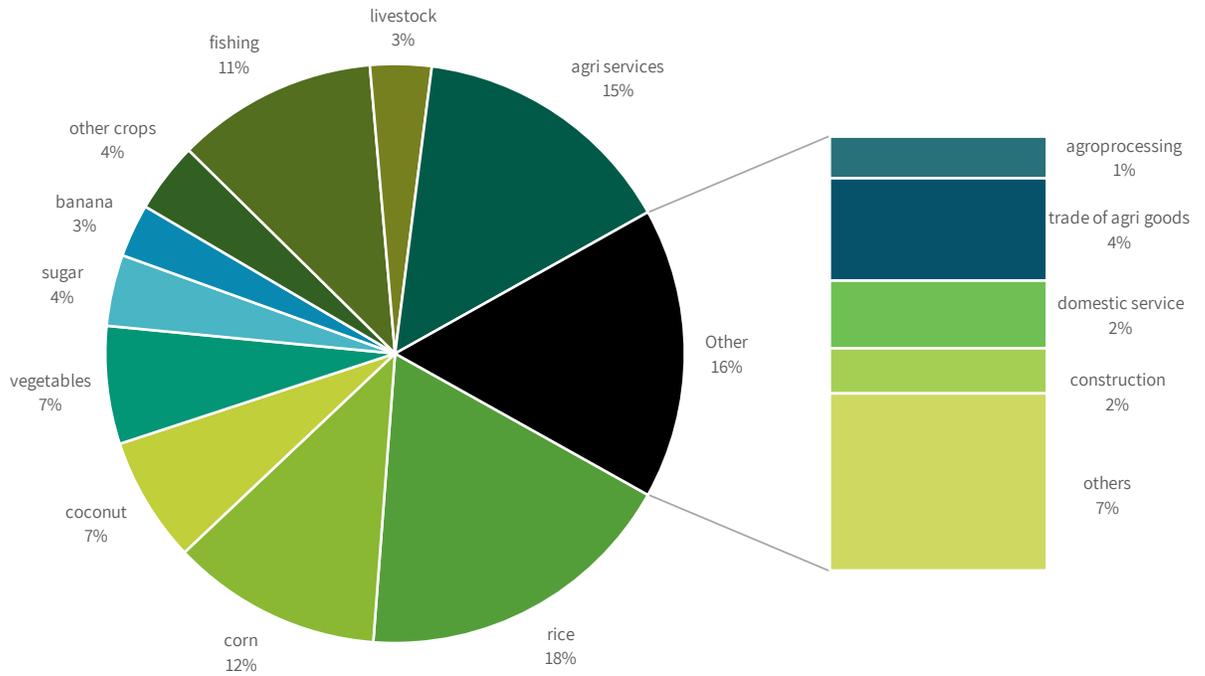
| | Agric. HHs | Rural HHs | Poor HHs | Agri-Poor HHs | Agri-rural HHs |
|---|------------|-----------|----------|---------------|----------------|
| Wages | | | | | |
| agriculture regular | 36% | 6% | 14% | 34% | 33% |
| agriculture seasonal | 42% | 8% | 22% | 52% | 45% |
| non-agriculture regular | 13% | 70% | 36% | 6% | 13% |
| non-agriculture seasonal | 9% | 17% | 28% | 9% | 9% |
| Entrepreneurial Income - Agriculture | | | | | |
| crop farming | 70% | 71% | 69% | 70% | 70% |
| livestock | 7% | 10% | 6% | 5% | 7% |
| fisheries | 21% | 17% | 20% | 22% | 21% |
| Entrepreneurial | | | | | |
| trade | 62% | 59% | 44% | 56% | 62% |
| manufacturing | 11% | 8% | 11% | 17% | 12% |
| community, social, recreation and personal services | 7% | 9% | 7% | 6% | 7% |
| transport and communication | 16% | 19% | 33% | 19% | 15% |
| mining and quarrying | 1% | 1% | 2% | 1% | 1% |
| construction | 1% | 1% | 1% | 1% | 1% |
| Subsistence | | | | | |
| crop farming | 25% | 30% | 28% | 25% | 25% |
| livestock | 13% | 11% | 11% | 12% | 13% |
| fisheries | 8% | 6% | 6% | 7% | 8% |
| logging | 54% | 52% | 55% | 55% | 54% |
| hunting | 0% | 0% | 0% | 1% | 0% |

Sub-sector employment shares

Characteristics of employed members of agriculture-dependent households can be extracted from the corresponding Labor Force Survey of the FIES. About one-fifth of the employed are rice farmers, followed by corn farmers, coconut farmers, vegetable growers, and fisherfolk. Agriculture services account for about 15 percent of employment.

Non-agriculture related jobs comprise about 16 percent of employment shares. Sectors related to agriculture account for about 5 percent while the rest are low-skilled jobs such as construction and domestic services.

Figure B.2. Employment shares of agricultural household members by sub-sector activity, 2015



Natural Disaster Risk Effects on Investment

Managing risks and protecting the vulnerable does not merely protect public investments in individuals and private assets, but also contributes to broad growth and capital accumulation in several important ways. First, effective disaster risk management programs reduce the repeated losses of capital that occur every year in the Philippines and hinder the accumulation of assets and the development of resilience by individuals and firms. Second, they increase productivity by protecting human capital from the secondary impacts of frequent shocks, including health, the costs of which may exceed direct asset losses. Third, effective disaster risk management strategies promote investments by providing investors with acceptable levels of natural risks and visibility on the support they would receive should they be affected by a disaster.

The contribution of risk taking (for example, through investments, innovation, or entrepreneurship) to economic growth is well-established in the economic literature and was grounded on the theory of endogenous technical change (Aghion and Howitt 1992, Grossman and Helpman 1991, Romer 1990). If the presence of natural risk leads to a reduction in risk taking by households and firms, through lower investment or the selection of “safer” and less promising technologies, then it would lead to a reduction in growth and job creation.

Risk aversion has been linked to lower investment in physical and human capital (Rosenzweig and Stark 1989), wage growth (Shaw 1996), and technology adoption (Liu 2012) thereby reducing growth and economic development potential. If high natural risks lead individuals to become less inclined to take risks through innovation, education, or entrepreneurship, growth and development will suffer.

Gollier’s seminal work (Eeckhoudt, Gollier, and Schlesinger 1996; Gollier and Pratt 1996; Gollier and Schlee 2006) finds, under general conditions, that a higher level of “background risk” (here, the risk of flood or drought) makes individuals less willing to take risks in other domains, such as innovation or entrepreneurship. In other words, being exposed to one risk increases an individual’s risk aversion regarding other categories of risk. These results suggest that households consider their vulnerability to natural risks like floods and droughts when making other risk-related decisions in other domains, such as creating a business or migrating to a city.

Empirical work finds that higher levels of background risk are associated with increased risk aversion in financial decisions (Guiso and Paiella 2008, Heaton and Lucas 2000, Lusk and Coble 2008). More

recent literature also finds evidence of risk vulnerability with regards to land reform (Tella, Galiani, and Schargrodsky 2007), early life financial experiences (Malmendier and Nagel 2011), stock market crises (Guiso, Sapienza, and Zingales 2013), and violent trauma (Callen et al. 2014 and Voors et al. 2012).

There are two mechanisms through which an increase in the background risk can lead to high risk aversion and lower investment in growth and development.

The first is perfectly rational: there is a possibility that the two independent risks (one related to disasters, the other to risk taking in general) materialize together (Gollier and Pratt 1996). This combined risk—and the non-linearity in the utility function—increases risk aversion because a large income shock changes not just an individual's location on the utility function, but also the shape of that function (Cassar, Healy, and von Kessler 2015).

The second mechanism is behavioral. A shock such as a flood can lead to an overestimation in an individual's perceived likelihood of future natural shocks occurring. Cameron and Shah (2015) find, after a flood in Indonesia, that an individual's expectation of future flood occurrence is an order of magnitude higher than the true probability. Emotional responses can lead individuals to have greater fear of any negative event, reducing risk taking (Cassar, Healy, and von Kessler 2015).

The result of this effect is that people, firms, and investors will tend to reduce their risk taking and investments in location exposed to large natural risks, reducing economic growth and job creation. It means that actions to reduce natural risks—or to provide better tools and instruments to manage them—will likely increase investments and growth (Hallegatte, Bangalore, and Jouanjean 2016).

Compounding these effects is the role of “aversion to ambiguity.” Ambiguity refers to situations when there is no appropriate data available to support decision making (Ellsberg 1961). It is the case for instance in flood-prone areas, when the probability of occurrence of a flood is unknown. Or when firms and households are uncertain about how much support they would get from the government and community if a flood occurs. People usually show a large aversion to ambiguity and try to avoid ambiguous situations (Ellsberg 1961, D. Kahneman 2003, Daniel Kahneman and Tversky 2013, Tversky and Kahneman 1974).

Practically it means that firms or investors having to choose an investment location will tend to select a location with less ambiguity, that is a better knowledge of the level of risk and of the contingent plans in case of disasters. In a world where locations are in tough competition to attract investments, reducing ambiguity and risk with good data on natural risks and appropriate instruments to manage disasters can be an important comparative advantage.

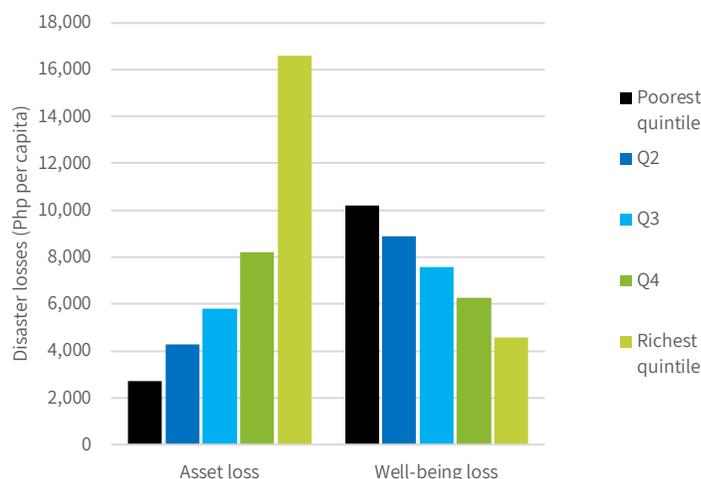
The Poor Suffered Greater Loss of Well-Being for any Given Asset Loss

A socioeconomic resilience assessment conducted by the government found that the Philippines suffers asset loss of around ₱182 billion, and well-being losses (or impact on quality of life) of around ₱208 billion per year due to natural disasters. However, while the asset losses of the poorest Filipinos account for only 7 percent of total asset losses (₱12.2 billion per year), they suffer 27 percent of the total well-being losses (₱56 billion per year).

The well-being of the poorest Filipinos is disproportionately affected by natural disasters because their livelihoods depend on fewer assets and their consumption is closer to subsistence levels. They cannot rely on savings to smooth the impacts of losses, placing their health and education at greater risk and potentially requiring more time to recover and reconstruct. For these reasons, the same peso amount of asset losses has a greater impact on the well-being of the poor than of the non-poor.

For example, a once-every-25-year typhoon in Manila causes ₱2,700 in asset losses per capita for the poorest quintile, while the wealthiest quintile loses assets worth ₱16,600 per capita. However, these losses affect the poorest and wealthiest residents of the capital very differently: equivalent well-being are nearly four times higher than asset losses (₱10,200 per capita) for the poorest quintile, while the wealthiest quintile experiences well-being losses of roughly a third of asset losses (₱4,600 per capita).

Figure D.1. Disaster losses in Manila from a once-every-25 year typhoon



Socioeconomic capacity, defined as the ratio of asset to well-being losses, measures the capacity of individuals to minimize the effects of natural disasters on their well-being. For example, a population with socioeconomic capacity twice as large as another will experience half the well-being losses for the same asset losses. The metric is defined for each province in the Philippines and varies widely across regions. Due to factors that condition the resilience of a region, such as quality of housing and infrastructure, financial inclusion, social protection, diversification, early warning systems, and remittances, regions in eastern Visayas and Mindanao are characterized by lower socioeconomic capacity. Despite their relative ability to cope with disasters, well-being losses in Luzon and the Eastern Visayas are high due to those regions' elevated exposure to typhoons and earthquakes.

Seasonality and Employment Dynamics

Seasonality of employment is an important part of the employment dynamic in the Philippines: and individual can have four possible employment statuses during a year. Workers likely shift from one status to another, including shifts in the sector of employment. A panel⁷⁰ is constructed from the Labor Force Survey to trace employment dynamics in four points during the year. This is beyond reporting primary employment in cross-sectional analysis which only captures one point. This analysis provides a better understanding of the annual incomes reported in FIES.

In analyzing the panel, the following operational definition is applied to evaluate employment status (Table E.1).

Table E.1. Employment Categories

| Definition | Previous Quarter of July | July | Previous Quarter of January | January |
|---|--------------------------|------------|-----------------------------|------------|
| Persistent Employed (Employed in all periods) | Employed | Employed | Employed | Employed |
| Transient Employed (At least one period of being not in the Labor Force, but employed) | Employed | Not in LF | Employed | Employed |
| Transient Unemployed (At least one period of being unemployed, but employed or not in the labor force in other periods) | Unemployed | Employed | Not in LF | Unemployed |
| Persistent Unemployed (Unemployed in all periods) | Unemployed | Unemployed | Unemployed | Unemployed |

Source: Piza, Edillon and del Mundo (2016).

Persistent and transient employment (defined above as transient employed or transient unemployed) is the focus of the analysis. Based on the panel created for 2015, about three-quarters are persistently employed. The proportion is lower for the bottom quintile with about three tenths. This reflects the bigger number of seasonal workers.

70 This occurs in years the FIES is collected. Since the FIES is a rider to the LFS, respondents are visited twice where each visit covers a semester. The other two data points in the panel are based on recall of employment status in the previous quarter which are asked in LFS. The observations pertain to the first months of the quarter. The corresponding July and January LFS rounds were used to create the panel. Unique household identifiers, age, gender and relationship to household head were used to extract the unique member specific observations.

A dissection of the panel shows the following characteristics of these type of employment (see Table E.2).

Location. Transient employment is more prevalent in rural areas. Likewise, there are more persistently employed in rural areas compared to urban. The National Capital Region and peripheral regions of CALABARZON and Central Luzon have the highest shares of persistent employment. Transient employment is evenly spread in regions with vibrant non-agriculture sector but still with a significant dependence on agriculture (CALABARZON, Western Visayas, Central Luzon, Ilocos Region). Transient unemployed is also highest in regions with persistent employment. These are mostly short-term contracts offered in retail and services.

Table E.2. Characteristics of the employed

| Characteristic | Persistent Employed | Transient Employed | Transient Unemployed |
|--------------------------------------|---------------------|--------------------|----------------------|
| Urbanity | | | |
| Urban | 40.4 | 29 | 43.3 |
| Rural | 59.6 | 71 | 56.7 |
| Region | | | |
| Region I - Ilocos Region | 5.3 | 8.5 | 5.7 |
| Region II - Cagayan Valley | 4 | 5.4 | 2.9 |
| Region III - Central Luzon | 10.7 | 8.5 | 11.8 |
| Region V- Bicol | 5.8 | 6.9 | 6.1 |
| Region VI - Western Visayas | 8.6 | 9.2 | 7.8 |
| Region VII - Central Visayas | 6.5 | 4.5 | 6.4 |
| Region VIII - Eastern Visayas | 4.3 | 6.3 | 4.8 |
| Region IX - Zamboanga Peninsula | 3.5 | 2.6 | 3.3 |
| Region X - Northern Mindanao | 4.9 | 6.5 | 4.6 |
| Region XI - Davao | 4.2 | 4 | 4.4 |
| Region XII - SOCCSKSARGEN | 4.5 | 5.9 | 3.7 |
| National Capital Region | 11.8 | 6.1 | 12.2 |
| Cordillera Administrative Region | 1.7 | 3.5 | 1.3 |
| Autonomous Region in Muslim Mindanao | 4.1 | 2.5 | 5.4 |
| Region XIII - Caraga | 2.9 | 4.1 | 2.8 |
| Region IVA - CALABARZON | 13.7 | 10.3 | 14 |
| Region IVB - MIMAROPA | 3.6 | 5.3 | 2.9 |
| Gender | | | |
| Male | 63.84 | 40.1 | 34.6 |
| Female | 36.2 | 59.9 | 65.4 |
| Age Group | | | |
| 15 to 24 | 12.7 | 23.5 | 45.8 |
| 25 to 34 | 24.8 | 23.3 | 19 |
| 35 to 44 | 27.5 | 19.5 | 13.5 |
| 45 to 54 | 22.4 | 18.4 | 10.9 |
| 55 over | 10.8 | 13.5 | 9.9 |

Table E.2. Characteristics of the employed (*continued*)

| Characteristic | Persistent Employed | Transient Employed | Transient Unemployed |
|---------------------------|---------------------|--------------------|----------------------|
| Education | | | |
| No Grade Completed | 1.5 | 1.6 | 1.6 |
| Elementary Undergraduate | 14.6 | 15.6 | 8.1 |
| Elementary Graduate | 14.1 | 15.5 | 9.7 |
| High School Undergraduate | 12.4 | 17.9 | 21.4 |
| High School Graduate | 32.3 | 32.6 | 32.2 |
| College Undergraduate | 8.9 | 9.8 | 18.5 |
| College graduate | 16.1 | 7 | 8.5 |
| Income Quintile | | | |
| Poorest | 17.4 | 24.6 | 19.1 |
| 2nd | 18.8 | 23 | 20.1 |
| 3rd | 19.8 | 21.8 | 21.3 |
| 4th | 21 | 19 | 21 |
| Richest | 23 | 11.7 | 18.5 |

Demographic characteristics. Persistently employed males outnumber females three to two. The opposite is the case for transient employment. With regards to age, those in their prime (35-44) have the higher share of persistent employment. Transient employed are predominantly with the younger age groups (15-24 and 25-34) and those with high school diploma.

Economic status. Higher shares of transient employment are concentrated in the bottom quintiles. Conversely, there are more persistent employment among those in the higher quintiles.

Among those employed in all quarters (see Table E.3), about 90 percent are employed in the same sector and majority of which are in services (about 37 percent in 2015). In contrast, agriculture is still the leading sector among those in the bottom quintile. Note however, that the share has dropped considerably from 49 percent in 2006 to 40 percent in 2015. The share of those in services have increased but not as much as the decline in agriculture.

In the bottom quintile, 2-percentage point increase in the mixed sector with agriculture happened between 2012 and 2015. This suggests that those engaged in agriculture seized opportunities to engage in non-agriculture employment to augment their incomes during off season. Moreover, the increasing share of employment in services sector among transient workers is an indication of better employment prospects for the poor. Recall that we have sustained economic growth during the latter period. The increasing human capital may have paved for more employment options.

Collectively, these changes in the employment structure have contributed to the change in the composition of household incomes.

Table E.3. Employment classification by sector

| | 2006 | 2009 | 2012 | 2015 |
|------------------------|------|------|------|------|
| All households | | | | |
| Persistent | | | | |
| Agriculture | 26% | 24% | 22% | 19% |
| Industry | 9% | 9% | 9% | 9% |
| Services | 33% | 36% | 36% | 37% |
| Mix w/ agriculture | 6% | 6% | 6% | 6% |
| Mix w/o agriculture | 2% | 2% | 4% | 4% |
| Transient | | | | |
| Agriculture | 8% | 7% | 7% | 7% |
| Industry | 4% | 3% | 3% | 4% |
| Services | 11% | 11% | 12% | 13% |
| Mix w/ agriculture | 1% | 1% | 1% | 1% |
| Mix w/o agriculture | 1% | 0% | 1% | 1% |
| Bottom quintile | | | | |
| Persistent | | | | |
| Agriculture | 49% | 48% | 45% | 40% |
| Industry | 4% | 5% | 4% | 5% |
| Services | 11% | 13% | 13% | 14% |
| Mix w/ agriculture | 9% | 9% | 9% | 11% |
| Mix w/o agriculture | 1% | 1% | 2% | 2% |
| Transient | | | | |
| Agriculture | 16% | 14% | 15% | 14% |
| Industry | 2% | 2% | 2% | 3% |
| Services | 6% | 7% | 8% | 9% |
| Mix w/ agriculture | 2% | 2% | 2% | 2% |
| Mix w/o agriculture | 0% | 0% | 0% | 1% |

Source: Staff estimates from constructed panel based on several LFS rounds

Minimum Wage

Labor regulations in the Philippines are comprehensive and strict, but they cover only a relatively small fraction of the workforce.

Minimum wage is high relative to the median wage in most regions in the Philippines (the minimum wage varies by administrative region as well as by sector and type of establishment). It is found to be high by several measures, both relative to Filipino workers' productivity and to minimum wage rates in other countries with similar levels of economic development (World Bank 2013 and Betcherman 2014). Nine out of 17 regions have a minimum wage that is higher than the median wage (World Bank 2016).

Minimum wage is set at a high level because it is meant to serve as a social safety net. The minimum wage for private firms is set at an amount that would cover the needs of workers and their families. To account for these needs, the government introduced the two-tier wage system in 2012, whereby the first tier is the mandatory regional wage floor while the second tier is an amount that is a guide for employers to adjust wages above the floor. The latest reform aimed to set the wage floors close to the poverty thresholds in order for the minimum wage to serve as a social safety net among wage workers. Consequently, the number of minimum wages below the poverty threshold was greatly reduced. But in fact, informality severely limits the actual coverage of minimum wage policy. Less than half (45 percent) of wage workers in private firms are employed in formal firms (World Bank 2016).⁷¹ Of these wage workers, about 75 percent are paid equal or above the minimum wage. Therefore, only about one-third of workers in private firms are actually covered by the minimum wage policy. In the informal sector, the minimum wage accounts for about 115 percent of the sector's average wage, which is so high that it is likely to discourage informal firms from formalizing their activity.

Aligning minimum wage with worker productivity could improve the chances of low-skilled workers being hired formally. In setting minimum wage, it is advisable to consider wage distribution not only in the formal sector but also in the informal sector and set it at a level that does not cut deeply into the overall wage distribution. Admittedly, this is difficult in a two-tier labor market, like the one in the Philippines. The wage distributions are very different in the upper, formal tier, and in the lower, informal tier. The minimum wage set based on the wage distribution in the formal sector, as it is currently the case, is too high to be used in the informal sector, where labor productivity is low. On the other hand, if the minimum wage were set based on the wage distribution in the informal sector, it would be too low to be meaningful for formal workers. Some compromise is necessary to strengthen the incentives for employers to hire low-skilled workers formally. An empirically informed discussion among social partners is needed to find a middle ground (World Bank 2013, 2016).

71 The World Bank 2016 report defines formal employment as follows: In the case of wage employment, the criteria used to distinguish between formal and informal employment are: a) having a written employment contract, b) payment of social security contributions by the employer, and c) protection from job dismissal. This definition considers a job formal when at least two of the three criteria are met. In the case of the self-employed, the enterprise is considered formal when it maintains proper bookkeeping and accounting practices. By assumption, unpaid family workers are considered informally employed.

Returns to Education

Estimation approach

People make decisions on their own schooling or children's schooling in anticipation of benefits that can be realized in the future. Benefits include both economic ones such as labor wage and non-economic ones, such as satisfaction in life, additional skills, and other individual values. In the Philippines, not all people are completing basic education, and limited numbers go to vocational training and college education. As discussed before, education attainment is particularly low among the poorest. In this section, we focus on the returns to education in the Philippines using the latest Labor Force Survey data to review returns to education using the Labor Force Survey.

We estimate the private returns based on using the conventional Mincer (1974) model of earnings (the human capital earnings function), which has log wage rates determined by years of schooling or level of education (elementary, secondary, postsecondary and non-tertiary vocational, and tertiary education), age or experience and other explanatory variables. Then, we estimate marginal probability for adults to work as wage earners. Both estimations are conducted first with all adults and then with sub-groups such as females and males, people residing in rural areas and urban areas, or different island groups (Luzon except NCR, NCR, Visayas, and Mindanao).

The private rate of return compares the costs and benefits of schooling as incurred and realized by the individual student who undertakes the investment. Mincer (1974) has provided a great service and convenience in estimating returns to schooling by means of the semi-log earnings function (see also Becker and Chiswick (1966)). The standard method to estimate private returns per year of schooling is to estimate log earnings equations of the form:

$$\ln(w_i) = a + \beta_1 S_i + \beta_2 X_i + \beta_3 X_i^2 + \mu_i \quad (1)$$

where $\ln(w_i)$ is the natural log (of hourly or annual, depending on data) earnings for the i th individual; S_i is years of schooling (as a continuous variable); X_i is labor market potential experience (estimated as $age_i - S_i - 6$); X_i^2 is potential experience-squared; and μ_i is a random disturbance term reflecting unobserved abilities. Therefore, β_1 can be viewed as the average rate of return to years of schooling to wage employment. The list of control variables is kept deliberately small to avoid overcorrecting for factors that are correlated with years of schooling. This is also known as the "Mincerian" method (Mincer, 1974).

The earnings function method can be used to estimate returns at different schooling levels by converting the continuous years of schooling variable (S) into a series of dummy variables, say D_p , D_s and D_t (where p is primary schooling, s is secondary schooling and t is tertiary) to denote the fact that a person has achieved that level of schooling. The omitted level is people with no schooling and that dummy is not in the equation

to avoid matrix singularity. The estimation equation in this case is of the form:

$$\ln(w_i) = a + \beta_p D_{pi} + \beta_s D_{si} + \beta_t D_{ti} + \beta_1 X_i + \beta_2 X_i^2 + \mu_i \quad (2)$$

After fitting this “extended earnings function” (using the above dummies instead of years of schooling in the earnings function), the private rate of return to different levels of schooling can be derived from the following formulas:

$$r_p = (\beta_p)/(S_p) \quad (3)$$

$$r_s = (\beta_s - \beta_p)/(S_s - S_p) \quad (4)$$

$$r_t = (\beta_t - \beta_s)/(S_t - S_s) \quad (5)$$

where S_p , S_s and S_t stand for the total number of years of schooling for each successive level. The sample for wage estimation only includes wage earners formally employed and omits unemployed and informal sector workers. Regression results from this estimation are summarized below:

Regression output tables

Table G.1. Returns to education to another year of schooling (OLS)

| Wage (ln_daypay) | (1) | (2) | (3) | (4) | (5) |
|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Total | Male | Female | Urban | Rural |
| Years of schooling | 0.110*** (116.1) | 0.0887*** (86.72) | 0.159*** (82.31) | 0.121*** (83.15) | 0.102*** (82.29) |
| Work experience | 0.0232*** (32.73) | 0.0257*** (31.28) | 0.0184*** (14.47) | 0.0209*** (19.10) | 0.0256*** (27.29) |
| Work experience (squared) | -0.000320*** (-22.36) | -0.000353*** (-21.75) | -0.000221*** (-8.245) | -0.000290*** (-12.52) | -0.000355*** (-19.42) |
| Urban - dummy | -0.218*** (-37.74) | -0.238*** (-36.65) | -0.186*** (-17.11) | | |
| Female - dummy | -0.109*** (-17.53) | | | -0.114*** (-13.03) | -0.109*** (-12.43) |
| Constant | 4.767*** (287.2) | 4.959*** (264.8) | 4.089*** (125.3) | 4.453*** (224.8) | 4.376*** (269.0) |
| Observations | 35,675 | 23,714 | 11,961 | 16,112 | 19,563 |
| R-squared | 0.350 | 0.332 | 0.419 | 0.313 | 0.277 |

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table G.2. Returns to education by education level

| Wage (ln_daypay) | (1) | (2) | (3) | (4) | (5) |
|------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Total | Male | Female | Urban | Rural |
| Attained primary education | 0.140*** (13.94) | 0.174*** (17.12) | 0.0405 (1.481) | 0.183*** (9.745) | 0.127*** (10.85) |
| Attained secondary education | 0.255*** (34.11) | 0.221*** (28.13) | 0.406*** (22.75) | 0.301*** (24.96) | 0.211*** (22.04) |
| Attained vocational training | 0.221*** (16.87) | 0.175*** (10.97) | 0.286*** (12.77) | 0.195*** (11.12) | 0.245*** (12.36) |
| Attained tertiary education | 0.745*** (104.0) | 0.638*** (69.56) | 0.833*** (70.65) | 0.665*** (68.56) | 0.853*** (79.47) |
| Work experience | 0.0252*** (37.04) | 0.0273*** (34.13) | 0.0224*** (18.14) | 0.0237*** (22.08) | 0.0262*** (29.76) |
| Work experience (squared) | -0.000401*** (-29.26) | -0.000411*** (-25.99) | -0.000392*** (-15.00) | -0.000386*** (-16.98) | -0.000411*** (-23.96) |
| Urban - dummy | -0.235*** (-42.57) | -0.245*** (-38.87) | -0.217*** (-20.76) | | |
| Female - dummy | | | | -0.140*** (-16.31) | -0.183*** (-21.79) |
| Constant | 5.408*** (363.7) | 5.398*** (325.0) | 5.197*** (158.9) | 5.134*** (263.2) | 4.945*** (355.0) |
| Observations | 35,675 | 23,714 | 11,961 | 16,112 | 19,563 |
| R-squared | 0.404 | 0.371 | 0.460 | 0.344 | 0.362 |

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table G.3. Returns to education to another year of schooling (OLS) - island groups

| Wage (ln_daypay) | (1) | (2) | (3) | (4) | (5) |
|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Total | NCR | Luzon | Visayas | Mindanao |
| Years of schooling | 0.110*** (116.1) | 0.116*** (43.77) | 0.107*** (74.82) | 0.104*** (48.28) | 0.104*** (56.61) |
| Work experience | 0.0232*** (32.73) | 0.0111*** (6.043) | 0.0226*** (22.09) | 0.0265*** (15.71) | 0.0286*** (19.10) |
| Work experience (squared) | -0.000320*** (-22.36) | -0.000167*** (-4.203) | -0.000312*** (-15.06) | -0.000384*** (-11.73) | -0.000366*** (-12.32) |
| Female - dummy | -0.109*** (-17.53) | -0.132*** (-9.672) | -0.115*** (-12.95) | -0.0877*** (-5.574) | -0.107*** (-7.838) |

Table G.3. Returns to education to another year of schooling (OLS) - island groups (*continued*)

| | | | | | |
|---------------|-----------------------|---------------------|-----------------------|-----------------------|-----------------------|
| Urban - dummy | -0.218*** (-37.74) | | -0.180*** (-21.07) | -0.103*** (-6.947) | -0.136*** (-11.07) |
| Constant | 4.767*** (287.2) | 4.802*** (131.0) | 4.770*** (192.1) | 4.509*** (112.4) | 4.505*** (136.6) |
| Observations | 35,675 | 4,958 | 15,654 | 6,381 | 8,682 |
| R-squared | 0.350 | 0.289 | 0.319 | 0.309 | 0.325 |

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table G.4. Returns to education by educational level (OLS) – island groups

| Wage (ln_daypay) | (1) | (2) | (3) | (4) | (5) |
|------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Total | NCR | Luzon | Visayas | Mindanao |
| Attained primary education | 0.140*** (13.94) | 0.0566 (1.338) | 0.0940*** (6.034) | 0.116*** (5.465) | 0.116*** (6.448) |
| Attained secondary education | 0.255*** (34.11) | 0.253*** (12.31) | 0.226*** (21.72) | 0.238*** (12.84) | 0.223*** (14.51) |
| Attained vocational training | 0.221*** (16.87) | 0.231*** (8.131) | 0.230*** (12.65) | 0.215*** (6.491) | 0.188*** (5.995) |
| Attained tertiary education | 0.745*** (104.0) | 0.577*** (39.04) | 0.755*** (71.98) | 0.810*** (44.10) | 0.849*** (54.66) |
| work experience | 0.0252*** (37.04) | 0.0134*** (7.383) | 0.0247*** (25.36) | 0.0268*** (16.81) | 0.0295*** (21.12) |
| work experience (squared) | -0.000401*** (-29.26) | -0.000247*** (-6.282) | -0.000399*** (-20.14) | -0.000445*** (-14.35) | -0.000432*** (-15.62) |
| female | -0.158*** (-26.30) | -0.143*** (-10.64) | -0.164*** (-19.25) | -0.150*** (-9.965) | -0.193*** (-14.90) |
| Urban/Rural | -0.235*** (-42.57) | | -0.194*** (-23.77) | -0.0996*** (-7.109) | -0.156*** (-13.71) |
| Constant | 5.408*** (363.7) | 5.630*** (131.9) | 5.448*** (239.9) | 5.082*** (144.1) | 5.121*** (178.8) |
| Observations | 35,675 | 4,958 | 15,654 | 6,381 | 8,682 |
| R-squared | 0.404 | 0.313 | 0.383 | 0.384 | 0.415 |

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table G.5. Marginal probability for wage employment by years of schooling (Probit)

| Variables | (1) | (2) | (3) | (4) | (5) |
|---------------------------|-----------|-----------|-----------|-----------|-----------|
| | Total | Male | Female | Urban | Rural |
| Years of schooling | 0.024*** | 0.017*** | 0.034*** | 0.020*** | 0.026*** |
| | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 |
| Work experience | 0.017*** | 0.015*** | 0.020*** | 0.015*** | 0.019*** |
| | 0 | 0 | -0.001 | -0.001 | 0 |
| Work experience (squared) | -0.000*** | -0.000*** | -0.000*** | -0.000*** | -0.000*** |
| | 0 | 0 | 0 | 0 | 0 |
| Female - dummy | 0.051*** | | | 0.066*** | 0.038*** |
| | -0.003 | | | -0.005 | -0.004 |
| Urban - dummy | 0.057*** | 0.057*** | 0.055*** | | |
| | -0.004 | -0.005 | -0.007 | | |
| Observations | 78,355 | 47,336 | 31,019 | 28,673 | 49,682 |
| | -287.2 | -131 | -192.1 | -112.4 | -136.6 |

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table G.6. Marginal probability for wage employment by education level (Probit)

| Variables | (1) | (2) | (3) | (4) | (5) |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Total | Male | Female | Urban | Rural |
| Attained primary education | 0.038*** | 0.013** | 0.098*** | 0.047*** | 0.034*** |
| | -0.005 | -0.006 | -0.009 | -0.01 | -0.006 |
| Attained secondary education | 0.072*** | 0.057*** | 0.097*** | 0.049*** | 0.083*** |
| | -0.004 | -0.005 | -0.008 | -0.007 | -0.006 |
| Attained vocational training | 0.045*** | 0.035*** | 0.051*** | 0.023* | 0.065*** |
| | -0.009 | -0.013 | -0.013 | -0.012 | -0.013 |
| Attained tertiary education | 0.156*** | 0.148*** | 0.156*** | 0.102*** | 0.220*** |
| | -0.005 | -0.007 | -0.007 | -0.007 | -0.008 |
| Work experience | 0.018*** | 0.016*** | 0.020*** | 0.015*** | 0.020*** |
| | 0 | 0 | -0.001 | -0.001 | 0 |
| Work experience (squared) | -0.000*** | -0.000*** | -0.000*** | -0.000*** | -0.000*** |
| | 0 | 0 | 0 | 0 | 0 |
| Female - dummy | 0.047*** | | | 0.065*** | 0.031*** |
| | -0.003 | | | -0.005 | -0.004 |
| Urban - dummy | 0.056*** | 0.057*** | 0.051*** | | |
| | -0.004 | -0.005 | -0.007 | | |
| Observations | 78,355 | 47,336 | 31,019 | 28,673 | 49,682 |

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Pro-Poor Health Policies Introduced by the Government, 2005-2015

- In the 2008, DOH instituted major reforms for reduction of maternal and neonatal mortality, known as the Maternal, Neonatal, and Child Health and Nutrition (MNCHN) strategy. A major component of this was a behavior change strategy that will enable all pregnant women to see antenatal care and postnatal care and deliver in a facility equipped with emergency obstetric care.
- In 2010, the formal adoption by the PhilHealth program list of those identified as the “poor” and the “near poor” from national household targeting system for poverty reduction (NHTS-PR) of the Department of Social Welfare and Development (DSWD).
- In 2011, introduction of the Department of Health policy to provide PhilHealth registration for all indigents through subsidized premiums, and in 2014 to include within the category of “indigents” those considered near poor.
- In 2011, implementation of a no-balance billing policy wherein indigent members of PhilHealth are not to pay anything beyond what is paid by PhilHealth when confined in government hospitals.
- In 2012, significant increase in the budget (through revenue from earmarked tobacco taxes) for subsidizing PhilHealth registration of the indigents.
- In 2012, expansion of PhilHealth’s outpatient primary care benefit package⁷² delivered by rural health units for the indigents (serving urban and rural poor population).
- In 2012, DOH embarked on a Health Facilities Enhancement Program (HFEP) to accelerate the supply-side readiness to provide health services, including maternal and neonatal care. The HFEP involved resources to be poured into infrastructure and equipment for facilities based according to health facilities plans based on mapping and needs assessment checklists.
- The MNCHN strategy was complemented by changes in PhilHealth’s packages for maternity care such as introducing expansion of coverage from first two deliveries up to the fourth delivery (2006 and 2008), introducing a Newborn Care Package (2006), expanding the coverage from the first two deliveries up to the fourth delivery (2008), paying a bigger reimbursement for deliveries in non-hospital settings than in for hospital deliveries (2011), unbundling antenatal care as a separate package from delivery (2014), and reintegrating pregnant women who are not yet members or with inactive membership by providing immediate coverage with no requirement for waiting time.
- The conditional cash transfers program introduced by the DSWD included within it for conditions for increasing antenatal care and delivery under supervision of skilled birth attendants.

72 This was expanded since 2012 into the current primary care benefit (PCB1) covers a range of essential outpatient services such as screening for non-communicable diseases (NCDs) and diagnosis and treatment for common infectious disease conditions (e.g. asthma, acute gastroenteritis, upper respiratory tract infection), including dispensing of some basic drugs for these conditions.

Benefit Incidence Analysis

BIA is a standard approach for examining who benefits and how much from public expenditure on various programs, in particular in social protection, health, and education. It is a statistical method for computing the distribution of public expenditure across different population groups, such as poor and non-poor, men and women, children and elderly, and so on. BIA does this by combining the unit cost of providing the service with information on the use or receipt of the service. In some countries, BIAs for social assistance programs have been effective tools to justify reforms that eliminate ineffective programs and replace them with better-targeted ones. Early applications of BIA in government-wide reforms include education and water and sanitation systems in Colombia and health systems in Malaysia and Ghana in the 1990s. Based on empirical evidence from BIAs, Indonesia in 2005 initiated dialogue to reform ineffective general subsidies, such as those for petroleum, and reallocated funds to health, education, and a new cash transfer program (Indrawati 2005).

Like any other research methodology, BIA has advantages and limitations. Among the advantages is that BIA does not require specialized and usually expensive data collection. BIA uses existing national household surveys for the data needed to undertake the analysis, which at the minimum requires the following information: (i) indicator of household participation to the program, and (ii) amount of assistance received from the program. If these two pieces of information are available from national household surveys, BIA can be a very straightforward exercise, which is its second most appealing trait. By comparing certain indicators with and without the program—or post-transfer versus pre-transfer scenarios—BIA can estimate program coverage of various segments of the national population as well as answer important questions for policy makers such as the program's impact on overall poverty and income distribution. Findings from a BIA thus apply to the entire country unlike many highly-specialized surveys.

Unlike rigorous impact evaluation, which assesses a program's impact on specific development outcomes (such as education completion, child stunting, and wasting) due to intended behavioral changes induced by a particular program, BIA does not account for behavioral changes. It assumes that, except the provision of cash assistance to beneficiaries, everything else remained unchanged in the living conditions of both beneficiaries and non-beneficiaries.⁷³

This is the third in a planned series of BIA for the Pantawid Pamilya that was conducted by the World Bank. The first BIA was done in 2012 and updated in 2015.⁷⁴ DSWD conducted its own Pantawid BIA in 2013. The most recent available national household surveys that could be used for this study is the 2015 FIES produced by the Philippine Statistical Authority. The 2015 FIES collected information on the amount of cash grant

73 For more information on benefit incidence analysis, see Demery (2000).

received by beneficiary households for the reference year (2015). It captured a nationally representative sample of the CCT beneficiaries. The FIES 2015 captured an unweighted sample of 9,366 household beneficiaries of Pantawid Pamilya or about 23 percent of the total survey sample, which fully represented 4.4 million Pantawid household beneficiaries nationwide. For this BIA, results presented are mostly from the FIES 2015. It will be complemented by results from previous rounds of national surveys and available administrative data, as needed.

FIES 2009 rider question: “Is any member of your household a beneficiary of the Pantawid Pamilyang Pilipino Program?”

FIES 2012 and 2015 Income module: “During the period (Jan–Dec 2012), did you or any member of your family receive in cash any gift, support, assistance, or relief from the Pantawid Pamilyang Pilipino Program in cash.”

APIS 2013 (social protection module): “During the period January–June 2013, has any member of your family received benefits/payments from the Pantawid Pamilyang Pilipino Program? How much was received in cash from the Pantawid Pamilyang Pilipino Program in the last 6 months”

| Year | Sample households | CCT sample households | Weighted households | Weighted CCT households |
|------|-------------------|-----------------------|---------------------|-------------------------|
| 2015 | 41,544 | 9,366 | 21,980,141 | 4,479,955 |
| 2013 | 10,864 | 1,845 | 21,892,397 | 3,360,409 |
| 2012 | 40,171 | 6,722 | 20,056,813 | 2,902,477 |
| 2009 | | | 18,451,414 | 420,096 |

Source: PSA (FIES 2009, 2012, 2015; APIS 2013).



Impact of Remittances

Estimation approach

Remittances increase the income of recipients and reduce liquidity constraints that may affect their decisions on labor supply, school attendance, and consumption. Household recipients are expected to increase their consumption of goods and services, and investments in human capital, such as sending their children to school. Meanwhile, remittances may encourage dependency among recipients and reduce labor supply.

We estimate the impact of remittances on household decision outcomes using Family Income and Expenditure Survey – 2015 and Labor Force Survey – January 2016. Generally, the models include an indicator for remittance recipients, indicator for recipients of a conditional cash transfer (CCT), and characteristics of the household, household head and members, which vary depending on what is appropriate for the sample population.

For binary outcome variables, we estimate using the probit model:

$$\Pr(Y_{(i,j)}=1 \mid X_{(i,j)}, H_j, R_j) = \Phi(X_{(i,j)}' \beta_1 + H_j' \beta_2 + R_j' \beta_3 + u_{(i,j)})$$

where $Y_{(i,j)}$ takes the value 1 if member j in household i is part of the labor force, currently working, or attending school; $X_{(i,j)}$ is the set of characteristics of the household member (for example, age, sex, birth order, etc.); H_j is the set of characteristics of the household (for example, recipient of CCT, urban resident, etc.); R_j takes the value 1 if household receives foreign or domestic remittances; and $u_{(i,j)}$ is the error term. For direct interpretation of coefficients, marginal probabilities are calculated.

Meanwhile, for continuous outcome variables, we estimate a model using ordinary least squares (OLS):

$$Y_{(i,j)} = \beta_1 X_{(i,j)} + \beta_2 H_j + \beta_3 R_j + u_{(i,j)}$$

where $Y_{(i,j)}$ is the number of hours worked or expenditure share of a consumption item.

Labor supply

We estimate the impact of foreign and domestic remittances on labor force and employment using a probit model (reported are in marginal fixed effects) and on number of hours worked using OLS. For labor supply outcomes, individuals analyzed are those aged 18 – 64; for employment outcomes, only those in labor force; while for number of hours worked, only those who are employed. Aside from dummy variables for foreign and domestic remittance recipients, the model includes controls for household characteristics: recipients

of CCT, geographic characteristics, income deciles, number of members aged below 15 and above 64; and characteristics of the individual of interest: age, marital status, educational attainment, and whether he/she is the household head).

Child outcomes

For child outcomes, we also used a probit model (also in marginal fixed effects). For school attendance, individuals analyzed are those aged 5 – 17; while for child labor, only those aged 5 – 14. There are children reported to be working and also attending school. Controls used are household characteristics: recipients of CCT, geographic characteristics, income deciles, number of members aged below 15 and aged 18 – 64; characteristics of the HH head: age, educational attainment, and marital status; characteristics of the individual of interest: age and whether he/she is the oldest child.

Expenditure behavior

We estimate the impact of foreign and domestic remittances on household expenditures, measured by the share of expenditure on a particular commodity to total expenditure. In particular, we looked at expenditures shares of food, clothing, housing, health, education, and others. Share of others is calculated by subtracting from 1 the total share of food, clothing, housing, education, and health. These include expenditures on durable (except clothing and footwear) and non-durable goods, recreation, utilities, transportation, house operations, among others. Controls used are household characteristics: recipients of CCT, geographic characteristics, family size, and income deciles; and household head characteristics: age, educational attainment, and sex.

Table J.1: Regression estimates for labor supply indicators (Adults 18 – 64 years old)

| Model | Probit (marginal fixed effects) | | OLS |
|----------------------------------|---------------------------------|---------------------|---------------------|
| | Labor force participation | Employment | Hours work |
| HH receives domestic remittances | -0.026 (0.003)** | -0.010 (0.002)** | -1.655 (11.08)** |
| HH receives foreign remittances | -0.191 (0.004)** | -0.028 (0.002)** | -1.774 (10.04)** |
| HH receives CCT | 0.040 (0.004)** | 0.009 (0.002)** | -1.465 (7.44)** |
| HH head | 0.203 (0.004)** | 0.023 (0.002)** | 1.761 (8.94)** |
| Male | 0.233 (0.003)** | -0.011 (0.002)** | 0.367 (2.05)* |
| Age | 0.042 (0.001)** | 0.007 (0.000)** | 0.116 (2.71)** |
| Age squared | -0.001 (0.000)** | -0.000 (0.000)** | -0.003 (5.95)** |

Table J.1: Regression estimates for labor supply indicators (Adults 18 – 64 years old) (continued)

| Model | Probit (marginal fixed effects) | | OLS |
|--|---------------------------------|---------------------|---------------------|
| | Labor force participation | Employment | Hours work |
| Married | -0.048 (0.004)** | 0.033 (0.002)** | 0.564 (3.09)** |
| College grad | -0.228 (0.006)** | -0.006 (0.003)* | 0.620 (2.20)* |
| Number of members aged below 15 and above 64 | 0.001 (0.001) | 0.002 (0.001)** | 0.699 (13.79)** |
| Urban area | -0.018 (0.004)** | -0.013 (0.002)** | 3.095 (16.84)** |
| Upper 10% | 0.091 (0.008)** | 0.035 (0.002)** | 10.242 (24.50)** |
| Constant | | | 32.031 (35.91)** |
| Regional controls | Yes | Yes | Yes |
| N | 54,509,985 | 37,022,147 | 34,801,349 |
| R ² | 0.18 | 0.14 | 0.07 |

* p<0.05; ** p<0.01

Table J.2: Regression estimates for school attendance (Children 5 – 17 years old) and child labor (Children 5 – 14 years old)

| Model | School attendance | Child labor |
|----------------------------------|---------------------|---------------------|
| HH receives domestic remittances | 0.006 (0.002)** | 0.001 (0.000)** |
| HH receives foreign remittances | 0.019 (0.002)** | -0.002 (0.000)** |
| HH receives CCT | 0.010 (0.002)** | 0.002 (0.000)** |
| Male | -0.031 (0.002)** | 0.001 (0.000)** |
| Age | 0.090 (0.002)** | 0.010 (0.000)** |
| Age squared | -0.004 (0.000)** | -0.000 (0.000)** |
| Oldest child | -0.010 (0.003)** | 0.000 (0.000)** |
| Number of members aged below 15 | -0.006 (0.001)** | 0.001 (0.000)** |

Table J.2: Regression estimates for school attendance (Children 5 – 17 years old) and child labor (Children 5 – 14 years old) (*continued*)

| Model | School attendance | Child labor |
|--------------------------------------|--------------------|---------------------|
| Number of members who are aged 18-64 | 0.001 (0.001) | -0.001 (0.000)** |
| Age of HH head | 0.000 (0.001) | 0.001 (0.000)** |
| Age of HH head squared | -0.000 (0.000) | -0.000 (0.000)** |
| HH head is college grad | 0.022 (0.004)** | 0.002 (0.000)** |
| Upper 10% | 0.057 (0.002)** | 0.001 (0.000)** |
| HH head is married | 0.024 (0.004)** | 0.000 (0.000) |
| Urban area | -0.006 (0.003)* | -0.001 (0.000)** |
| Regional controls | Yes | Yes |
| N | 30,140,767 | 23,386,243 |
| R ² | 0.18 | 0.14 |

* p<0.05; ** p<0.01

Table J.3: Regression estimates for Household Spending Patterns (as Share of Total Expenses)

| Model | Food | Clothing | Housing | Health | Education | Others |
|----------------------------------|----------------------|---------------------|---------------------|--------------------|--------------------|---------------------|
| HH receives foreign remittances | -0.020 (18.66)** | 0.003 (13.29)** | 0.011 (12.05)** | 0.008 (11.45)** | 0.010 (17.66)** | -0.011 (10.97)** |
| HH receives domestic remittances | -0.008 (8.25)** | -0.000 (1.05) | 0.002 (2.55)* | 0.013 (21.01)** | 0.002 (4.31)** | -0.009 (9.72)** |
| HH receives CCT | 0.015 (10.90)** | 0.002 (6.69)** | -0.012 (10.63)** | 0.001 (0.92) | 0.002 (3.48)** | -0.007 (5.62)** |
| Decile10 | -0.288 (105.67)** | 0.010 (19.36)** | -0.004 (1.59) | 0.040 (23.06)** | 0.032 (22.60)** | 0.211 (80.88)** |
| HH head is college graduate | -0.076 (21.67)** | 0.003 (3.98)** | 0.036 (11.92)** | 0.004 (1.62) | 0.015 (8.13)** | 0.019 (5.76)** |
| Urban area | 0.000 (0.17) | -0.003 (12.84)** | 0.026 (26.67)** | -0.002 (2.89)** | -0.004 (7.03)** | -0.018 (15.99)** |
| Family size | -0.003 (11.62)** | 0.000 (6.16)** | -0.011 (51.99)** | 0.000 (1.29) | 0.004 (29.17)** | 0.010 (41.23)** |



Table J.3: Regression estimates for Household Spending Patterns (as Share of Total Expenses) (*continued*)

| Model | Food | Clothing | Housing | Health | Education | Others |
|-----------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| Male (HH head) | 0.002 (2.12)* | 0.000 (1.97)* | -0.010 (9.89)** | 0.003 (4.48)** | -0.003 (4.43)** | 0.006 (5.70)** |
| Age (HH head) | -0.000 (2.18)* | -0.000 (6.08)** | -0.001 (4.38)** | -0.001 (8.73)** | 0.002 (17.94)** | 0.001 (3.58)** |
| Age squared (HH head) | -0.000 (1.26) | 0.000 (1.57) | 0.000 (11.28)** | 0.000 (13.71)** | -0.000 (19.96)** | -0.000 (7.53)** |
| _cons | 0.688 (98.45)** | 0.032 (24.81)** | 0.237 (39.38)** | 0.010 (2.18)* | -0.042 (11.74)** | 0.076 (11.31)** |
| Regional controls | Yes | | | | | |
| N (households) | 22,730,410 | 22,730,410 | 22,730,410 | 22,730,410 | 22,730,410 | 22,730,410 |
| R ² | 0.56 | 0.09 | 0.29 | 0.08 | 0.10 | 0.30 |

* p<0.05; ** p<0.01

Impact Evaluation Designs for the Pantawid Pamilya

Since the program was launched in 2008, DSWD has already launched two impact evaluations of the *Pantawid Pamilya*. The first impact evaluation (World Bank 2012) used a randomized control trial (RCT) design. Data collection was done in 2011 and the report released in 2013. The second impact evaluation (Orbeta et al. 2014) used a regression discontinuity design (RDD). Data collection was done in 2013 and the report was released in 2014.⁷⁵ This World Bank IE used tested the use of an alternative approach for subsequent evaluations, the RDD. Orbeta et al. fully employed the RDD approach in assessing the impacts of the program. The RCT compared outcomes between treatment villages with households that received the CCT and control villages with eligible households but did not receive the CCT. On the other hand, the RDD compared outcomes in households that are just above and below the poverty line, with the premise that these households exhibit similar characteristics.

The World Bank RCT. RCT is generally considered the “gold standard” of evaluation methods. For social programs like Pantawid Pamilya, the most rigorous approach to IE assigns treatment/control status on a randomized basis. An RCT estimates program impact by comparing outcomes among eligible households in the “treatment” localities—meaning those that received the program—with outcomes among households in the “control” localities who would have been eligible if the program had been in operation there. A prior statistical assessment (power calculation) ensured that the evaluation study included enough households to assess the impact of the program effectively. An RCT does not require baseline data for impact indicators as randomization will fully suffice to cancel out all other factors that could affect differences in measured outcomes except the program itself. The key step in RCT, therefore, is ensuring that assignment of the treatment is fully random in the study sample.

This method was feasible in the World Bank IE because the program was just starting and it was possible, with the authorization of DSWD, to delay enrollment of the “control group” into the program until the study is completed. For succeeding IEs, RCT is no longer possible as *Pantawid Pamilya* intended to scale up and exhaust all potential households eligible to enroll in the program.

The Orbeta et al. RDD. RDD is a quasi-experimental method of evaluating program impact that is applicable when observation units (households) can be sorted using some continuous metric (income). Program eligibility is defined using a predetermined threshold or cutoff point of the sorting metric, for which the

⁷⁵ World Bank (2013) “Philippine Conditional Cash Transfer Program Impact Evaluation 2012”; Orbeta, et al. (2014) “Keeping Children Healthy and in School: Evaluating the *Pantawid Pamilya* Using Regression Discontinuity Design. Second Wave Impact Evaluation Results.”

population has no direct control. This sorting metric is often referred to as the assignment, running, or forcing variable. In RDD, observations just below the cutoff are similar to, and therefore, compare well to those just above the cutoff. In the absence of the program, one would expect that any shifts in outcome variables would happen smoothly alongside minor changes in the running variable. Thus, a large jump in the outcome variable, observed precisely at the threshold value of the running variable, after program intervention can be attributed to the program itself.

In recent years, use of RDD in evaluating the impacts of development programs has been growing. One of the strengths and advantages of RDD includes the weaker assumptions required for its validity compared to other non-experimental impact evaluation methods. The main caveat is that because program impact is estimated locally, or using observations very close to the cutoff, the generalizability of RDD estimated effect is limited. While the evaluation results using RDD has strong internal validity properties considered by many as next only to RCT, it needs to be recognized that its external validity is limited to observation units near the eligibility threshold.

For more details, refer to World Bank (2013) “Philippine Conditional Cash Transfer Program Impact Evaluation 2012;” Orbeta, et al. (2014) “Keeping Children Healthy and in School: Evaluating the *Pantawid Pamilya* Using Regression Discontinuity Design. Second Wave Impact Evaluation Results.”

Impact of Conditional Cash Transfers on Remittances

Given the small amount of the CCT cash grant, we test the null hypotheses that the CCT grant does not crowd out remittances. We draw from the following literature on the impact of public transfers on private transfers:

- Schoeni (1996): private assistance in the form of cash and time-help were crowded out by Aid to Families with Dependent Children benefits in the United States.
- Schoeni (2002): unemployment insurance crowds out interfamily transfers.
- Cutler and Gruber (1996): extension of Medicaid to pregnant women and children in the United States crowds out private insurance coverage.
- Cox, Exer, and Jimenez (1998): Social Security benefits crowd out prevalence of private transfers in Peru. However, estimator may be biased downwards because recipients of those benefits are less likely to receive private transfers. Formal workers with the benefit tend to have more access to credit and savings mechanisms and thus, more able to mitigate shocks and therefore, less likely to need private transfers.
- Attansio and Rios-Rull (2000): found weak evidence supporting crowding out for Mexican CCT.
- Teruel and Davis (2000): Being in PROGRESA program has no influence over the incidence or the level of either monetary or non-monetary private inter-household transfers.

We use two models to test whether CCT crowds out private transfers such as remittances using the FIES 2015 data. First, we use a probit model to determine whether receiving CCT increases the likelihood of receiving remittances. Second, we use a linear regression to test whether the amount of CCT received by the beneficiary decreases the amount of remittances received. The results show that there is a slight negative correlation between being recipient of CCT and being recipient of remittances, though when we looked at amounts the effect disappears.

Table L.1: Effects of CCT on remittances

| Model | Effect of CCT participation on incidence of remittances (Probit) | | Effect of size of CCT received on the size of remittance (Linear regression) | |
|-------------------------|--|---------------------------------|--|--|
| | HH receives domestic remittances | HH receives foreign remittances | Amount of domestic remittances received | Amount of foreign remittances received |
| HH receives CCT | -0.007 (0.000)** | -0.02 (0.000)** | | |
| Amount of CCT received | | | -0.017 -0.49 | -0.001 -0.02 |
| (mean) poorhh | 0.05 (0.001)** | -0.009 (0.001)** | -539.385 -0.7 | -256.775 -0.2 |
| Upper 10% | -0.421 (0.001)** | 0.507 (0.001)** | 2,133.09 -0.74 | 78,489.59 (16.62)** |
| HH head is college grad | 0.039 (0.001)** | 0.104 (0.001)** | 3,860.91 (2.91)** | -1,944.23 -0.89 |
| Urban area | -0.004 (0.000)** | -0.031 (0.000)** | -258.618 -0.62 | 102.364 -0.15 |
| Family size | -0.022 (0.000)** | 0.03 (0.000)** | 274.626 (3.48)** | 1,502.41 (11.57)** |
| HH head is male | -0.099 (0.000)** | -0.113 (0.000)** | -7,929.89 (17.06)** | -3,724.81 (4.87)** |
| Age of HH head | -0.007 (0.000)** | -0.006 (0.000)** | -118.843 -1.44 | -478.707 (3.53)** |
| Age of HH head squared | 0 (0.000)** | 0 (0.000)** | 1.913 (2.41)* | 5.567 (4.26)** |
| Constant | | | 9,496.24 (3.71)** | 4,375.58 -1.04 |
| N | 22,730,410 | 22,730,410 | 18,140,760 | 18,140,760 |
| R ² | 0.08 | 0.11 | 0.1 | 0.14 |

* p<0.05; ** p<0.01



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The World Bank
PHILIPPINES

26th Floor, One Global Place, 5th Avenue Corner 25th Street, BGC
Taguig, 1634 Metro Manila

T: +63 2-465-2500

F: +63 2-465-2505

W: www.worldbank.org/en/country/philippines