

PROGRAM SOUNDNESS ASSESSMENT

A. Program Description

1. The Senior High School Support Program (SHSSP) will support the establishment in 2014–2015 of senior high school (SHS) in the Philippines and its implementation in 2016–2019. This will be part of the Department of Education's (DepEd) kindergarten to grade 12 (K to 12) basic education reform agenda.¹ Among the objectives, the introduction of SHS aims to (i) provide graduates with the skills necessary for entrepreneurship or formal sector employment, (ii) better prepare them to undertake further education or training; and (iii) spread the high school curriculum content over more years to allow students to learn the material. This will involve development of the SHS program (curriculum, instructional materials, and assessment tools); engaging and training SHS teachers; providing classrooms, schools and other educational infrastructure, possibly partly through a public–private partnership (PPP) modality; and establishing an SHS voucher program to finance students to attend non-DepEd SHSs.²

2. The extension of basic education by 2 years has required the DepEd to prepare a new level of basic education up to grade 12 that will offer SHS students in the new grades 11 and 12 a common core curriculum and electives in a choice of four tracks: (i) academic, (ii) technical-vocational and livelihood (TVL), (iii) sports, and (iv) arts and design. Because SHS is new to the Philippines, the DepEd has been required to:

- (i) Develop SHS program content, including curriculum, learning materials, and assessment tools for all subjects.
- (ii) Assign and train sufficient teachers qualified to teach at the SHS level.
- (iii) Deliver sufficient classrooms, laboratories, and workshops for DepEd schools, some using a PPP modality;
- (iv) Design and implement an SHS voucher program to finance graduates from DepEd junior high schools (JHSs), graduates from non-DepEd JHSs who were supported under the education service contracting (ESC) program, and other eligible graduates from non-DepEd JHSs to attend non-DepEd SHSs; and
- (v) Adjust basic education system management functions to include SHS. In particular, the capacity of DepEd division-level offices to plan for SHS needed to be developed.

3. It is estimated that the SHS program will cost \$4.410 billion during 2014 to 2019 and about \$900 million per year thereafter to operate, assuming the government uses resources optimally. The Asian Development Bank (ADB) SHSSP will provide \$300 million to support selected outcomes within the government's SHS program. The scope of both programs is in Table 1.

¹ In the Philippines, basic education includes kindergarten, elementary school, high school, and, from the 2016–2017 school year, senior high school.

² Includes private high schools and public and private postsecondary institutions.

Table 1: Program Scope

Item	Broader Government Program	Results-Based Lending Program
Outcome	Improved basic education system; graduates prepared for employment or further education and training	Effective SHS system established and implemented
Key outputs	SHS program, schools and other educational facilities, basic education sector leadership, teacher engagement and training, basic education sector management and administration	SHS program in mathematics, science and TVL; MSS for school facilities in DepEd SHSs; PPPs for school infrastructure; SHS voucher program; fiduciary and safeguards systems strengthened
Activity types	(i) Curriculum, learning materials, and assessment tools developed; (ii) teachers engaged and trained; (iii) educational facilities delivered; (iv) PPPs used to finance student enrollments; and (v) strengthened sector management	(i) Science, mathematics and TVL curriculum developed; (ii) educational facilities delivered; (iii) assessment of PPP modality for school facilities; (iv) voucher program established; and (v) procurement system strengthened
Program expenditure	\$4,410 million	\$300 million
Geographic coverage	Nationwide	Nationwide
Implementation Period	2014–2019	2014–2019

MSS = minimum service standard, PPP = public–private partnership, SHS = senior high school, TVL = technical-vocational and livelihood.

Source: Asian Development Bank.

B. Program Soundness

1. Relevance and Justification

4. **Justification.** Public spending on education is generally viewed as an investment in human capital, because education increases the future income stream and employment opportunities of individuals. In addition, basic education is a fundamental human right and providing it is seen as an obligation of the state. For these reasons, government investment in the expansion of free and compulsory basic education to grade 12 is justified. With the passage in the Philippines of the Enhanced Basic Education Act of 2013 and approval of the associated implementing rules and regulations, the legal basis for the K to 12 education agenda was put in place, although further refinement of the regulatory framework will take place under the SHSSP. In addition to contributing to public SHS provision, the SHSSP strengthens PPPs in school delivery and through the SHS voucher program.

5. The SHSSP supports the government's K to 12 reform program, which advances human capital development to achieve inclusive growth in the Philippines and lift the country's competitiveness. SHS will have an impact on inclusive growth by better preparing young adults for employment or further education and training. This will ultimately result in a young work force with (i) increased educational attainment, (ii) increased employment, and (iii) better wages. Because education increases a graduate's future income stream and employment opportunities, education is key to breaking the cycle of poverty and is central to government's poverty reduction strategy.

6. **Poverty reduction.** The Philippine economy has exhibited generally low and uneven growth since 1960, with annual growth in gross domestic product (GDP) averaging 4.1% yearly during 1960–2012. This compares to average annual GDP growth of 6.3% for comparable Southeast Asian countries, such as Indonesia, Malaysia, Thailand, and Viet Nam. Because its population growth rate is also one of the highest in the region, the country's subpar performance is even more pronounced when measured in terms of per capita GDP growth. While poverty incidence declined from 33.1% in 1991 to 24.9% in 2003, it rose to 26.5% during 2006–2009 and has stagnated since then. This is despite an increase in GDP growth, which averaged 6.3% during 2010–2013 and is expected to reach 6.4% in 2014 and 6.7% in 2015.³ The unemployment rate averaged 7.3% during 2006–2013, and the underemployment rate averaged 19.8% over the same period (footnote 1). Given the government desire to broaden the benefits of economic growth, the Philippine Development Plan 2011–2016 adopts a framework of inclusive growth, which the plan defines as high growth that is sustained, generates mass employment, and reduces poverty.⁴

7. While education is central to achieving inclusive growth, the basic education system faces a number of challenges. National averages mask wide disparities and inequities of outcomes that characterize the basic education system across income levels. Moreover, these disparities generally worsen with the number of completed years of schooling until grade 10, when they begin to taper off. The educational attainment profiles in 2011 of different subsets of the population aged 17–24 years, including both the poor and the nonpoor, illustrate this pattern of inequality well. Figure 1 shows the educational attainment profile of the population aged 17–24 years by poverty status. There is a 1.7 percentage point difference in the proportion of individuals aged 17–24 years from poor and non-poor households in the Philippines who complete at least grade 1. Fully 95.7% of individuals from non-poor households complete grade 6, versus only 80.9% of individuals from poor households. Similarly, 78.3% of individuals from non-poor households are able to obtain a high school diploma—i.e., they complete at least 10 years of schooling under the current basic education system— compared with only 42.4% of individuals from poor households.

8. The introduction of the SHS program is likely to have positive distributional impacts for several reasons. First, because it will be part of the free basic education system, the SHS program will allow more children from the poorer households to attend school beyond grade 10 than before the two grades were added to secondary education. Second, a better articulated TVL track under the SHS program is likely to provide additional motivation for poor public JHS graduates who have no intention of going to university to stay in high school and attend SHS—at least to the extent that the TVL track is able to improve their post-school employability. Third, the design of the SHS voucher program for SHS is more pro-poor than the current ESC scheme. This is because the proposed base subsidy levels are high enough to allow students belonging to the poorest income deciles to attend private SHS, at least in terms of tuition.⁵

9. **Beneficiaries.** The primary beneficiaries of the SHS program will be the SHS students who complete basic education better prepared for employment or further education and training. This in turn will prepare them for formal employment. The primary beneficiaries of the SHSSP

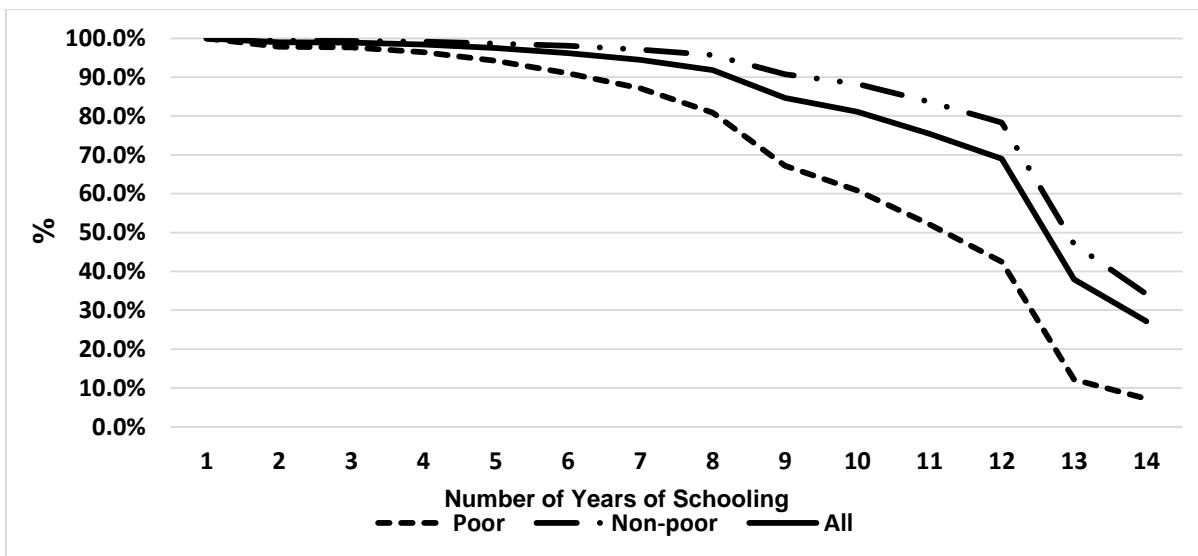
³ Asian Development Bank (ADB). 2014. *Asian Development Outlook 2014: Fiscal Policy for Inclusive Growth*. Manila.

⁴ Government of the Philippines, National Economic and Development Authority. 2011. *The Philippine Development Plan 2011–2016*. Manila.

⁵ Even with the proposed subsidy levels for tuition, children from extremely poor households may opt to attend public SHS because their families are not able to pay for the other costs of a private school.

will be the estimated 5.9 million (49.6% male and 50.4% female) students who will be enrolled in SHS between June 2016 and April 2019. Of these, about 3.6 million students will be in DepEd SHSs and 2.3 million students will be in non-DepEd SHS. Employers, tertiary education institutions, and technical and vocational education and training (TVET) institutes will benefit from high school graduates who are better prepared for the world of work or postsecondary education and training. At present, approximately 78% of students graduating from grade 10 go on to further education or training, and the remaining 22% are available to enter the workforce, where the youth unemployment rate is approximately 18%. The SHS system will benefit from more diverse supply. DepEd core functions will benefit from capacity building at all levels through training, information and communications technologies, and equipment. Higher education institutions will benefit from incoming students who are better able to cope with tertiary level material. In the longer term, the K to 12 program will make the Philippine basic education cycle more comparable internationally and better able to ensure that Filipino workers remain competitive in the increasingly globalized labor market. However, these benefits are contingent upon DepEd providing increased quality and access.⁶

Figure 1 : Education Attainment Profile of Population Aged 17 to 24 Years, 2011



Note: The educational attainment profile shows on the vertical axis the percentage of the population in the given age cohort who have completed any given grade or higher (as shown on the horizontal axis). The gap between 100% and y-intercept shows the proportion that did not complete grade 1, while the slope indicates the percentage of children who drop out across the years.

Source: PPTA estimates based on ADB estimates based on Philippine Statistics Authority. *Annual Poverty Indicators Survey, 2011*. <http://www.census.gov.ph/content/results-2011-annual-poverty-indicators-survey-apis> (accessed 9 September 2014).

10. **Stakeholder support.** Since 2010, DepEd has undertaken extensive consultations with a broad array of stakeholders, including Congress, other government departments, DepEd and non-DepEd school associations, and broader society. Social Weather Stations, a private nonprofit social research organization, was contracted by DepEd to monitor public response to the proposed reforms from some groups. By understanding public opinion better, DepEd has been able to address and respond to public concerns, primarily through communications and

⁶ Demand analysis from ADB. 2013. *Launching Senior High School in the Philippines: An Absorptive Capacity Study*. Consultant's report. Manila (TA 7599-PHI); and. Distribution analysis from ADB. 2013. *Economic Analysis*. Consultant's report. Manila (TA 7599-PHI).

initiatives by DepEd's K to 12 steering committee and an interministerial committee with representatives from Congress, private providers, the Technical Education and Skills Development Authority (TESDA) and the Commission on Higher Education. Public awareness campaigns on the SHS voucher program are planned, and a DepEd division-level planning process engaging local stakeholders has been underway since 2013.

11. **Gender impacts.** Girls outperform boys in basic education on many indicators, including net enrollment and completion. Girls also make up a larger proportion of enrollments and show higher retention rates in higher education. However, these gender advantages do not carry through to the labor market, where women have a much lower participation rate and a higher unemployment rate than men. Gender segregation by occupation, occupation group, and class of worker is also significant. Women tend to work mainly in informal industries and suffer the majority of gender-related discrimination.⁷ Two disbursement-linked indicators (DLIs) include gender targets. The SHSSP program action plan (PAP) also includes some gender actions.

2. Adequacy

12. **Effectiveness.** The sector assessment indicates that the key challenges facing the basic education sector are poor quality, overcrowded classrooms at the JHS level, stagnant results on national achievement tests, high levels of unemployment among graduates, and declining Philippines competitiveness in terms of human resource development. The SHSSP makes use of the results-based lending for programs (RBL) modality, which links financing to achievement of key results. The SHSSP design incorporates four distinct results chains that together link inputs, outputs, outcomes, and impact. The results areas chosen and performance targets set in the design are adequate to achieve the overall sector goals, and the RBL modality fits well with the government's shift towards results-based planning and budgeting.

13. The major risk to achievement of the objectives of the K to 12 program is DepEd's overall capacity to implement the K to 12 reform, including the addition of SHS. Slow implementation of the DepEd reorganization plan has caused substantial delays in the establishment and/or strengthening of special units to manage curriculum and materials development, the development of new national assessment tools, classroom construction, and mobilization of human resources.

14. Limited capacity within DepEd has caused delays in making arrangements for the SHS voucher program, private school licensing and accreditation, preparing the SHS curriculum, upgrading monitoring and evaluation systems, and planning for classroom construction at the DepEd division level. While Australian Aid and the World Bank are providing advisors and consultants to support the reforms for kindergarten to grade 10, no support, apart from the SHSSP, has been targeted specifically at grades 11 and 12. No dedicated focal unit exists within DepEd for coordinating and sequencing the activities needed to prepare for the launch of SHS in June 2016. The SHSSP includes DLIs and PAP actions that address the challenge of preparing and rolling out a greenfield SHS system, including the development of the content, promulgation of minimum service standards for facilities and teachers, the design and implementation of the SHS voucher program, and the strengthening of fiduciary and safeguard systems.

15. **Efficiency and economy.** The SHS voucher program that will be supported under the SHSSP is designed to increase the diversity of SHS provision by incentivizing private sector

⁷ World Bank. 2011. *Making Everyone Count*. Washington, DC.

participation in the basic education sector. Importantly, it will also give students the opportunity to attend the school of their choice. These two design features will foster greater competition in SHS provision and, as a result, improve quality. At the same time, the quality of education delivered in DepEd SHSs is expected to benefit by a reduction in congestion and overcrowding in the public school system.

16. Although DepEd's absorptive capacity has improved, it will likely still find it challenging to use its budget allocation in a timely and efficient manner after the public school system rapidly expands with the implementation of SHS in 2016. The SHSSP's DLIs relate to the achievement of minimum service standards for teachers and student–classroom ratios, the implementation of the SHS voucher program, and the strengthening of DepEd's procurement monitoring. Greater efficiency will also be achieved through lower transaction costs that will result from the use of government systems under the RBL modality.

17. **Sustainability.** The long term sustainability of the K to 12 and SHS programs has been strengthened by the incorporation of SHS into the country's basic education under the Enhanced Basic Education Act of 2013. Civil society is likely to exert pressure for the entitlements provided under SHSSP to continue. Government commitment to the K–12 program has been demonstrated by the increasing share of the government budget that has gone to basic education during 2005–2013. This commitment was reaffirmed by the approval of DepEd's medium-term expenditure plan (MTEP) for 2014–2020 by the government's development budget coordinating committee in December 2013. Should domestic or external shocks negatively affect the government's financial situation, the SHS program's medium-term sustainability will be enhanced by the RBL modality, since its linking of disbursements to results will incentivize the achievement of DLI targets. The SHSSP also strengthens the DepEd's ability to secure necessary budgetary support for the SHS program because it provides a bridge between the design and implementation phases of the program. In addition, government-wide reforms in fiduciary and safeguard matters will help sustain progress in financial management, procurement, anti-corruption efforts, and environmental and social safeguards in the medium terms. This will help to tighten the link between government spending and intended results.

3. Financial and Economic Analysis

18. Ensuring the delivery of basic education is a core function of the state. In addition to its intrinsic value as a basic human right, education has an instrumental value by increasing the productivity of a country's human capital. Education allows society to reap positive externalities in the form of greater civic awareness and consciousness, which increases social cohesion. Better educated mothers have healthier children. Improving education is expected to build and sustain economic growth by making a critical mass of skilled and highly educated and more productive workers available to help ensure that a country remains competitive in a highly globalized and increasingly knowledge-driven international market. All these reasons clearly make government investment in education, particularly basic education, justified.

19. As an investment in human capital, education increases the future income and employment opportunities of individuals by enhancing their productive capacities. Data from the Philippine Statistics Authority's annual poverty indicator survey for 2011 show that the average annual wage income of wage earners with more education is higher those of wage earners with less education (Table 2). In 2011, the average annual wage income of a college graduate was 152% that of a high school graduate, while the average annual wage income of a postsecondary TVET graduate is 60% higher than a graduate of high school. The gap between the average annual wage incomes of college graduates and high school graduates is magnified

when the wage incomes are adjusted by the probability of being employed. The average annual employment-adjusted wage income of college graduates is 185% higher than that of high school graduates while the average annual employment-adjusted wage income of postsecondary school graduates is 56% higher than that of high school graduates.

**Table 2: Average Annual Wage Income of Wage Earners,
by Educational Attainment, 2011
(₱)**

Educational Attainment	Unadjusted Annual Wages	Employment Adjusted Annual Wages
JHS graduate	70,215	41,382
With one year postsecondary TVET	91,370	53,215
Postsecondary graduate	112,525	64,677
1 year of college	85,651	48,453
2 years of college	101,088	54,982
3 years of college	124,765	75,183
College graduate	176,991	117,945
Some graduate studies	205,539	142,397

Source: ADB estimates based on Philippine Statistics Authority. *Annual Poverty Indicators Survey, 2011*. <http://www.census.gov.ph/content/results-2011-annual-poverty-indicators-survey-apis> (accessed 9 September 2014).

20. To assess the economic viability of introducing the SHS program, the rate of return was computed using the elaborate method.⁸ This method derives the rate of return by solving for the discount rate that equates the net present value of the benefit stream arising from additional investment in schooling with the net present value of the cost stream of the same. Typically, this approach is used to estimate the rate of return of completing a higher level of education (e.g., college) relative to completing a lower level of education (e.g., high school). In estimating the social rate of return to education, the benefit stream refers to the difference in the earnings stream of an individual with more education (e.g., college graduate) and that of another individual with less education (e.g., high school graduate) and the value of the positive externalities associated with the additional schooling. The cost stream consists of the direct costs (i.e., tuition and other school fees, books, school supplies and transportation costs), the indirect costs (i.e., opportunity cost or foregone earnings while in school) of education and public subsidies.

21. Table 3 presents the DepEd's cost of providing the SHS program.⁹ It was estimated that it will cost the DepEd about ₱15,500 per student to deliver the academic track and ₱20,300 per student to deliver the TVL track (footnote 9). The direct cost of attending school for different levels of education is estimated by average household spending per member attending school, as set out in Table 4.

22. In estimating the internal rate of return of the SHS program, the following benefits of the program are quantified (i) the increased productivity of SHS graduates brought about by increased years of schooling and the higher level of skills acquired in SHS; (ii) the higher

⁸ G. Psacharopoulos. 1981. Returns to Education: an updated international comparison. *Comparative Education*. 17 (3). pp. 322–323.

⁹ ADB. 2013. *Calculating the Cost of Government Provision of Senior High School*. Consultant's report. Manila (TA 7599-PHI).

probability of completing the college cycle, given that SHS graduates will enter university better prepared for college work than the previous grade 10-level basic education graduates did;¹⁰ and (iii) the shorter postsecondary and college cycle that will arise from the downloading of part of the general pre-SHS college curriculum to the SHS curriculum in the new grades 11 and 12. In general, the higher productivity due to increased years of schooling was estimated by the increase in the employment-adjustment wage income of an individual who completed more years of schooling because of SHS. The graduates of the SHS program under the academic track are expected to have completed the equivalent of 1 year of current general college education.

Table 3: Annual per student cost of public provision of SHS
(₱)

Track	Cost
Academic	15,495
Technical-vocational and livelihood	20,271

Note: In 2012 pesos

Source: *Program Preparatory Technical Assistance (TA-7955) estimates.*

23. It was also assumed that SHS graduates will have greater productivity because they learn more due to the decongestion of the current curriculum by the addition of the two grades, and because the new K to 12 curriculum will focus on 21stst century skills. Other assumptions were that the proportion of students who complete college will increase, and that tertiary level study will be shortened by 1 year because the SHS curriculum will include part of the present general education curriculum in college. Thus, the present 4- and 5-year college courses will become 3- and 4-year college courses after the introduction of SHS. SHS graduates taking the TVL track who proceed to do postsecondary TVET after SHS are expected to be ready to take TESDA's national certificate III and IV certification.

24. In this regard, the 57% difference between the employment-adjusted income of individuals with a college degree and that of individuals who have only completed three years of college and the 22% difference between the employment-adjusted income of individuals who are graduates of postsecondary TVET and that of individuals with one year postsecondary TVET (as shown in Table 1) are indicative of the gains from the shorter tertiary education cycle with the introduction of SHS. The social rate of return of the SHS program is estimated to be 12.5%. This assumes a 10 percentage point increase in productivity, due to higher order skills learned in SHS, and a 10 percentage point increase in retention at the college level, given better preparation for college as a result of SHS.

Table 4:
Annual household spending on education per member in school, 2011
(₱)

Level	Spending
Secondary School	7,390
Postsecondary training	10,226
College	28,361

Note: Average household spending for a member attending schools at different education levels was estimated by regressing household spending on education on (i) the number of household members enrolled at the elementary

¹⁰ Of students who begin college, 56.7% drop out before completing it. The additional 2 two years of SHS were assumed to reduce this dropout rate to about 50%.

level, (ii) the number of household members enrolled at the secondary level, (iii) the number of household members enrolled at the college level, and (iv) the number of household members enrolled at the postsecondary TVET level. The coefficients for each of the independent variables in this equation were then taken as an estimate of the direct cost of attending school at the said levels, as set out in Table 2.

Source: Program Preparatory Technical Assistance (TA-7955) estimates.

4. Implementation Arrangements

25. **Fiduciary and safeguard functions.** The SHSSP will be implemented using the DepEd's financial management systems as a basis for budgeting, accounting, internal control, financial reporting, and auditing at central, regional, division, and school levels. The SHSSP will use government procurement systems for goods and services. The government and ADB will agree upon any special risk mitigation measures associated with fiduciary and safeguard functions. And special modification of these systems agreed between the government and the ADB will be reflected in the agreed program action plan. Finally, the Department of Budget and Management will ensure the timely release of the DepEd budget allocation.

26. **Monitoring and evaluation.** Monitoring the achievement of results and compliance with fiduciary and safeguard requirements is a critical component of RBL programs. The SHSSP will rely on the DepEd's M&E systems, supplemented by special reports as specified in the DLI protocols. Currently, DepEd's office of planning service manages monitoring and evaluation functions through its planning and programming, research and statistics, and project development and evaluation divisions. It is also responsible for preparing quarterly and annual progress reports. It is proposed that the office of planning service be the focal point for monitoring progress towards achievement of DLIs as well as any other special reporting requirements associated with the SHSSP.

27. **Reviews.** ADB will monitor the implementation of SHSSP through regular technical and financial review missions and by commissioning periodic third-party reviews, as agreed with the government. Annual reviews will assess and verify the achievement of DLIs that will be the basis for fund disbursements. A midterm review mission will be conducted after year 2 of the program, coinciding with the annual review mission. It will review and revise DLIs based on implementation experience and performance up to that time.

C. Managing Risks and Improving Capacity

28. The soundness assessment shows that the SHSSP is well justified in terms of its expected impact on the education sector, poverty reduction, and overall economic development; adequacy, as measured by effectiveness, efficiency, and economy; as well as sustainability of the results in the medium term.

29. Successful implementation of the program, however, will require the continued commitment of government and a stronger capacity on the part of the DepEd to implement the program. A key risk is that the location of SHSs will be ad hoc, rather than be guided by a comprehensive school mapping exercise conducted as part of the development of DepEd divisional plans. A second risk is that SHSs will not be based on the efficient SHS size needed to make optimal use of such resources as classrooms, teachers, science and information and communications technologies laboratories, and workshops. Based on the curriculum, this assessment has estimated that a minimum of 14 sections (560 students) are needed for the school to be efficient, and cost estimates in the MTEP are based on that calculation. Too many small SHSs could raise the cost and compromise the quality of the SHS program.

30. This risk will be mitigated by DLI 3 and DLI 4, and the PAP action on division-level school planning, which is an enhanced school mapping exercise led by DepEd division-level superintendents that will include local stakeholders. A third risk is that not enough teachers qualified to teach at the SHS level can be engaged, particularly in science, mathematics, and technical-vocational subjects. This risk is mitigated by revised rules on high school teacher recruitment for full- and part-time teachers, which allow holders of bachelors and masters degrees in subjects such as mathematics, engineering, and science to teach in high schools without passing the licensure examination for teachers. Teachers of TVET subjects will either hold accreditation from TESDA or be recognized experts in their field, while teachers in sports, arts, and design subjects can be recognized experts in their field.

31. The SHS voucher program raises risks related to voucher distribution, if individual learners cannot be adequately tracked between grade 10 and SHS, as well as to voucher redemption, if financial management is not sufficiently rigorous. DLI 5 directly addresses the risks, because it relates to the development of (i) the policy and regulatory framework, and (ii) institutional arrangements for voucher operation. An independent proposal has been made for Asian Development Bank technical assistance support for voucher program capacity building during the planning and implementation phases to mitigate this risk. The benefits of the SHS voucher program are diversifying the supply of SHSs and enabling poorer students to enroll in non-DepEd schools, should they choose to do so.