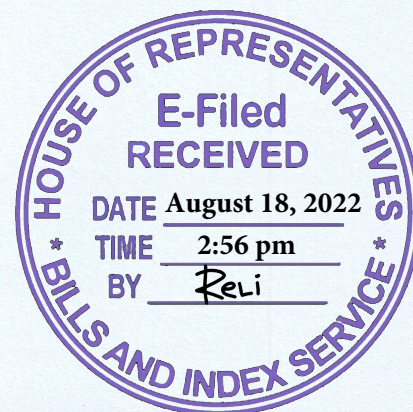


Republic of the Philippines
HOUSE OF REPRESENTATIVES

NINETEENTH CONGRESS
First Regular Session

HOUSE BILL NO. 3832



Introduced by Honorable Rex Gatchalian

AN ACT
PROMOTING THE ESTABLISHMENT OF PUBLIC MATH AND SCIENCE HIGH
SCHOOLS IN PREVIOUSLY UNDERSERVED AREAS, AND APPROPRIATING
FUNDS THEREFOR

EXPLANATORY NOTE

The economic development of the Philippines is highly dependent on a formidable army of scientific minds consisting of scientists, mathematicians, engineers, and other skilled professionals. Without them, the country will continue with an economy perennially on the brink yet never achieving full industrialization and prosperity.

The UNESCO Institute of Statistics shows that there are only 186 researchers per million inhabitants in the Philippines, one of the lowest among ASEAN countries.¹ The Programme for International Student Assessment shows that our learners ranked second to last in Mathematics and Science among the other learners in 79 countries.² The Philippines also came in last, out of 58 countries, in Mathematics and Science in the 2019 Trends in International Mathematics and Science Study.³ In the Southeast Asia Primary Learning Metrics 2019, only 17% of Grade 5 learners met the minimum standards in Mathematics expected for 'end of primary'.⁴ The results of these international assessments also confirm prior insights

¹ UNESCO Institute of Statistics. 2020. Research and Development (Data). (See <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>)

² OECD. 2019. Programme for International Student Assessment 2018 Results. (See <https://www.oecd.org/pisa/publications/pisa-2018-results.htm>)

³ Mullis, I. V. S., Martin, M. O., Foy, P., Kelly, D. L., & Fishbein, B. 2020. TIMSS 2019 International Results in Mathematics and Science. Boston College, TIMSS & PIRLS International Study Center. (See <https://timssandpirls.bc.edu/timss2019/international-results/>)

⁴ UNICEF & SEAMEO. 2020. SEA-PLM 2019 Main Regional Report, Children's learning in 6 Southeast Asian countries. United Nations Children's Fund (UNICEF & Southeast Asian Ministers of Education Organization)

from the National Achievement Test, the latest being in Academic Year 2017-2018, where the average performance of learners was 37% in Mathematics and 29% in Science, both falling within the low proficiency level.

A universal tenet of quality education is ensuring equitable access to education – including specialized Mathematics and Science curricula. However, this type of high-valued and essential education is only available to the few qualified learners that are admitted to either one of the 15 Philippine Science High School campuses, 17 Regional Science High Schools, or those who are fortunate enough to live near one of the other science high schools scattered across the country.

To fulfill our collective goal to be the next Asian tiger economy, we must address this skills shortage through strategic human capital investments focused on the fields of Mathematics and Science. This bill seeks to reduce the gap in access to specialized education in the aforementioned subject areas. The establishment of a new structure of accessible math and science high schools across the Philippines, particularly in all provinces that do not have at least one public math and science high school currently operating within their respective geographical boundaries, will allow capable and willing students who have been hindered by geographic and economic barriers to pursue specialized education.

In view of the foregoing, approval of this bill is earnestly sought.



Hon. Rex Gatchalian
Representative
1st District of Valenzuela

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Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

1 **SECTION 1.** *Short Title.* – This Act shall be known as the “*Equitable*
2 *Access to Math and Science Education Act*”.

3
4 **SEC. 2.** *Declaration of Policy.* – It is hereby declared a policy of the
5 State to provide equitable access to quality education in the pure and applied
6 sciences, mathematics, and technology for all Filipinos as a means to nurture
7 future generations of scientists, mathematicians, engineers, and other
8 professionals who will serve the nation as catalysts for scientific, technological, and
9 industrial progress.

10
11 Pursuant to this declaration, the State shall collaborate with local government
12 units (LGUs) to eliminate economic and geographical barriers that restrict the access
13 of otherwise willing and qualified students to said education.

14
15 **SEC. 3.** *Coverage.* – All provinces which do not have at least one (1) public
16 math and science high school operating within their respective geographical
17 boundaries at the time this Act takes effect shall be required to fulfill the
18 establishment requirements under Section 4 of this Act.

19
20 For purposes of this Act, the term *public math and science high school* shall
21 refer to a school principally financed through national or local government funds that

1 implements an advanced curriculum focused on science, mathematics, and
2 technology subjects, for students from grades 7 to 12.

3
4 **SEC. 4. *Establishment of Schools.*** – All provinces covered by the immediately
5 preceding section are hereby mandated to work with the Department of Education
6 (DepEd) to establish at least one (1) public math and science high school within their
7 respective provincial capitals.

8
9 Schools may be established pursuant to this Act through construction of new
10 school facilities, conversion and/or reorganization of an existing school, or
11 renovation and re-opening of currently non-operational school facilities or other idle
12 government-owned properties: *Provided, That* these schools must be fully
13 operational by Academic Year 2023-2024: *Provided, further, That* any utilization of
14 idle government-owned assets shall follow pertinent procedures as prescribed by
15 law: *Provided, finally, That* schools which have been designated by the DepEd as
16 fully compliant under this Act may start operations earlier than the prescribed
17 deadline.

18
19 **SEC. 5. *School Operations.*** – Schools established in compliance with this Act
20 shall be operated by the DepEd, with the proper participation of the applicable LGUs
21 and other community shareholders as prescribed by law. Said schools shall be
22 funded in full under the budget of the DepEd and shall be included in the annual
23 General Appropriations Act (GAA).

24
25 **SEC. 6. *Admissions.*** – Schools established in compliance with this Act shall
26 accept applicants based on the results of a competitive entrance examination. A
27 student may be eligible to apply for admission to said school only if he or she has
28 established continuous residence within the establishing province for at least one
29 (1) year upon the date of examination.

30
31 **SEC. 7. *Curriculum.*** – Schools established in compliance with this Act shall
32 implement a six-year integrated junior-senior high school curriculum that focuses
33 on advanced science, mathematics, and technology subjects under the guidance of
34 the DepEd and the Department of Science and Technology (DOST). The revised
35 curriculum of the Philippine Science High School System for Grades 7 to 12 shall be
36 used as basis for the formulation of said curriculum.

1
2 **SEC. 8. Higher Education Bond.** – A graduate of a school established in
3 compliance with this Act shall be required to enroll in a four- or five- year
4 Bachelor's Degree in Science program at an accredited college or university.
5 Said graduate must enroll in one of the following fields:
6 pure and applied sciences, mathematics, engineering, technology, or any other field
7 deemed appropriate by the Commission on Higher Education (CHED). A graduate
8 who shifts or transfers to a course in any unrelated field prior to completion of the
9 degree program shall pay a fine equivalent to the total full cost incurred by the
10 government in subsidizing the secondary education program of said graduate, as
11 calculated by the DepEd.

12
13 Any fine collected under the terms of this provision shall be allocated to any
14 government program that promotes the advancement of science, mathematics, and
15 technological education in the Philippines.

16
17 **SEC. 9. Appropriations.** – The amount of Five Hundred Million Pesos
18 (P500,000,000.00) is hereby initially appropriated to implement the provisions of this
19 Act. Thereafter, such amount necessary to effectively carry out these provisions shall
20 be included in the annual GAA.

21
22 **SEC. 10. Implementing Agencies.** – Within sixty (60) days from the effectivity
23 of this Act, the DepEd, in coordination with the DOST and the CHED, shall issue the
24 rules and regulations implementing its provisions. The Implementing Rules and
25 Regulations (IRR) issued pursuant to this section shall take effect thirty (30) days
26 after its publication in a newspaper of general circulation.

27
28 **SEC. 11. Separability Clause.** – If any provision of this Act is held invalid or
29 unconstitutional, the other provisions not so declared shall remain in force and
30 effect.

31
32 **SEC. 12. Repealing Clause.** – All other laws, executive orders, presidential
33 decrees, administrative orders, rules and regulations, issuances, or parts thereof
34 contrary to or inconsistent with the provisions of this Act are hereby repealed or
35 amended accordingly.

1 **SEC. 13. Effectivity.** – Notwithstanding the non-issuance of the IRR, this Act
2 shall take effect fifteen (15) days after its publication in the Official Gazette or in a
3 newspaper of general circulation.

Approved,