

S E N A T E

S. No. 3279

---

Introduced by Senator Edgardo J. Angara

---

### EXPLANATORY NOTE

Despite many science, technology, engineering, and mathematics (STEM) scholarships developed and implemented by the Department of Science and Technology (DOST), the Philippines is still lacking in competent STEM professionals and teachers<sup>1</sup>. Many studies correlate the quality of teachers and of teaching to student achievements in science<sup>2</sup> and subsequently, to their choice to build science careers. With this in mind, this measure proposes new scholarships, which are open to courses on the sciences, mathematics, and engineering, with additional incentives for graduates to return service by teaching science and mathematics subjects in public or private high schools.

The proposed bill also aims to fast track the creation of a critical base of good science and mathematics teachers in high schools, in anticipation of the future implementation of K-12 curriculum. It plans to build on the current DOST-SEI undergraduate S&T scholarships by capturing current students in STEM courses in their last two years of study, and by offering them scholarships in exchange for teaching high school science, mathematics, or technology courses for a corresponding two years as return-of-service. Also, the bill introduces the option of hiring retired or unemployed science professionals as full- or part-time science teachers in high schools.

Furthermore, this measure gives additional incentives to these future teachers by upgrading their salaries to the equivalent to that of Special Science Teachers in the Philippine Science High School System, and by offering them scholarships to pursue Education units, should they wish to qualify for the Licensure Examination for Teachers (LET), through the Normal Schools.


---

<sup>1</sup> The DOST currently runs numerous undergrad and graduate scholarships, however the Philippines only has 157 scientists and engineers per million population (NSTP 2002-2020).

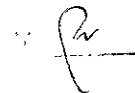
<sup>2</sup> Rich, Colleen K. "No Science Teacher Left Behind." From *Mason Spirit* George Mason University, 2009. Accessed at <http://seor.gmu.edu/announcements/SpiritFall09-Ganesan-Excerpt.pdf> 13 November 2010.

Students—most of whom are intimidated by daunting scholarship requirements, if not by science’s “difficult” reputation alone—should be given attractive incentives not only to go into STEM courses, but the opportunity to also teach these to high school students. This hopefully creates positive feedback which would assure a continuing feeder system by generating a wider interest in STEM through quality teaching in the secondary schools.

For these reasons, the swift approval of this bill is earnestly sought.

  
EDGARDO J. ANGARA

S E N A T E



S. No. 3279

---

Introduced by Senator Edgardo J. Angara

---

AN ACT  
STRENGTHENING THE TEACHING OF SCIENCE AND  
MATHEMATICS IN SECONDARY SCHOOLS BY  
SCIENCE, MATHEMATICS AND ENGINEERING GRADUATES,  
PROVIDING FOR SCHOLARSHIPS AND INCENTIVES THEREFOR  
AND FOR OTHER PURPOSES

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

Chapter I. GENERAL PROVISIONS

1  
2  
3       **SECTION 1. *Short Title.*** – This act shall be known as the “S&T Scholarships  
4 with Teaching Incentives Act of 2012.”

5  
6       **SEC. 2. *Declaration of Policy.*** – Science, technology and engineering are  
7 essential for national development and progress. The State shall give priority to research  
8 and development, invention, innovation and their utilization. Priority shall also be given  
9 to science and technology education, training and services.

10  
11       In line with the above, it is hereby declared the policy of the State to promote the  
12 development of the country's science and technology manpower in line with economic  
13 development and to provide the capability required in the areas of research, development,  
14 innovation as well as their utilization. As such, it is important that the State provide for  
15 quality science and mathematics teachers at the secondary level, which would encourage  
16 more students to pursue careers in science and technology.

17  
18       Therefore, the State shall provide for scholarships to deserving science students  
19 and other specially-gifted citizens to enable them to pursue higher education or training  
20 in areas of science, technology and engineering, and to provide incentives for them to  
21 become secondary school teachers, especially in their home regions.

1  
2       **SEC. 3. *General Objectives.*** – To carry out the measure, this Act shall strengthen  
3 the country's science and technology education by fast tracking graduates in the sciences,  
4 mathematics, and engineering who shall teach science and mathematics subjects in  
5 secondary schools throughout the country. Towards this end, scholarships shall be  
6 provided to finance the education of talented and deserving students in their third year of  
7 college, and pursuing a degree or training in areas of science and technology, and to  
8 provide incentives for them to pursue a career in teaching in high schools, especially in  
9 their home regions.

10  
11  
12                   **Chapter II. UNDERGRADUATE SCHOLARSHIP CRITERIA**

13  
14       **SEC. 4. *Scholarship Program.*** - This Act builds on the current Science and  
15 Technology Scholarships offered by the Department of Science and Technology (DOST),  
16 through its Science Education Institute (SEI), as provided for in Republic Act No. 7687,  
17 otherwise known as the “Science and Technology Scholarship Act of 1994.” It envisions  
18 a fast tracking of more science, technology, and engineering graduates by offering  
19 scholarships to deserving students in these courses in their third year of undergraduate  
20 study, based on their competitiveness and merit. It also offers additional incentives to  
21 attract the graduates of this scholarship program into teaching science, mathematics and  
22 technology courses in a public or private high school.

23  
24       **SEC. 5. *Eligibility.*** – The following are qualifications for the scholarship with  
25 teaching incentive. Applicants must:

- 26  
27                   • Be a Filipino citizen;  
28                   • Be a regular third-year college student at the time of award;  
29                   • Be currently enrolled in any of the state universities or colleges, or in  
30 private universities, especially in Commission on Higher Education  
31 (CHED)-compliant programs, under any of the identified priority S&T  
32 courses;  
33                   • Have a general weighted average (GWA) of 83% or better during their  
34 first and second year of college;  
35                   • Qualify in the Junior-Level Science Scholarship Examination; and  
36                   • Execute a Service Contract in which they agree to teach as their return  
37 of service (ROS).

38  
39       **SEC. 6. *Award Amounts.*** – Recipients are entitled to an annual award for full-  
40 time study equal to the annual tuition and fees charged to students attending an approved  
41 undergraduate program at any school in the country, public or private, with minimum  
42 slots awarded in private schools to off-set differences in tuition costs.  
43

1           **SEC. 7. Duration.** – Recipients shall be entitled to an award for the last two years  
2 of undergraduate study, or the last three years for those enrolled in five-year courses such  
3 as engineering, while matriculating in an approved program.

4  
5           **SEC. 8. Approved Courses and Priority Programs.** – Recipients shall pursue  
6 degrees in science, technology and engineering, as identified and approved by the DOST  
7 as priority S&T courses. Applicants who are currently enrolled under such courses under  
8 the CHED-compliant programs will be given priority.

9  
10           **SEC. 9. Terms and Conditions.** – Applicants for the scholarships must execute a  
11 service contract in which they:

- 12  
13           • Agree to any of the approved return of service conditions; and  
14           • Agree to repay the amounts disbursed plus interest pursuant to the terms  
15 of their service contract.

16  
17           Failure to comply with the terms of the service contract will result in the full  
18 repayment (plus penalties, if applicable) of all award monies received within a specified  
19 time limit.

20  
21  
22           **Chapter III. RETURN OF SERVICE CONDITIONS AND INCENTIVES**

23  
24           **SEC. 10. Return of Service Conditions.** – Award recipients must teach full-time  
25 high school subject(s) in Mathematics, Biology, Chemistry, or Physics; or Information  
26 Technology or Agricultural, Aquaculture or Fisheries Technology, both in the university  
27 and technical-vocational tracks in the secondary education curriculum, for a minimum of  
28 two years, in a public or private high school.

29  
30           **SEC. 11. Incentives Schemes.** – The following are incentives granted to qualified  
31 graduates who shall be hired to teach at a public or private high school for a minimum of  
32 two years. They shall be entitled to:

- 33  
34           • A starting salary grade equivalent to that of a Special Science Teacher I in  
35 the Philippine Science High School System;  
36           • Priority for job placement in any high school, public or private, of his/her  
37 choice within the country, with first priority in his/her home province;  
38           • A one-time relocation allowance should he/she be assigned in a place other  
39 than the permanent residence;  
40           • Scholarships in identified teacher education institutes for Science Education  
41 courses; and  
42           • Pass the Licensure Examination for Teachers (LET) within five years of  
43 hiring.

1 Recipients of the four- or five-year S&T Undergraduate Scholarship of DOST-SEI  
2 under R.A. No. 7687 may also opt to teach full-time the courses identified in Section 10  
3 of this Act, for a minimum of two years at a public or private high school in their home  
4 region. This Act amends the service obligation specified in R.A. 7687, and ensures that  
5 these scholar-graduates, once hired as teachers, are entitled to a return-of-service ratio of  
6 one year service for every two years scholarship enjoyed.

7  
8 **SEC. 12. *Teacher Training.*** – The Philippine Normal University (PNU), being  
9 the National Center for Teacher Education per Republic Act No. 9647, otherwise known  
10 as “Philippine Normal University Modernization Act of 2009” and its network of  
11 universities in teacher education like the National Network of Normal Schools (3NS), as  
12 well as CHED-compliant programs in Teacher Education and centers for teacher training  
13 recognized by CHED and DepEd, are hereby tasked to provide training for hired teachers  
14 under this program. For this purpose, one thousand (1,000) scholarships are made  
15 available every year to these hired teachers to be sourced from the Higher Education  
16 Development Fund (HEDF), as administered by CHED.

17  
18  
19 **Chapter IV. OPTIONS FOR OTHER SCIENCE, TECHNOLOGY,  
20 ENGINEERING, AND MATHEMATICS GRADUATES**

21  
22 **SEC. 13. *Eligibility of Science, Technology, Engineering and Mathematics***  
23 ***(STEM) Graduates.*** – Other STEM graduates and professionals, who are not recipients  
24 of the scholarship program provided for in this Act, may also apply to teach science,  
25 mathematics, or technology subjects in a public or private high school. Applicants must:

- 26  
27
- Be a Filipino citizen;
  - Must have graduated with a science, technology, engineering, or  
28 mathematics degree, with a GWA of 83% or better from a reputable  
29 university;
  - Must be at least 40 years of age at the time of application; and
  - Not have a service obligation under another program in conflict with  
30 DOST-SEI obligations.
- 31  
32  
33

34  
35 Qualified graduates and professionals shall also be entitled to teacher training  
36 programs in any teacher education institution, as specified in Section 12 of this Act, to  
37 prepare them into full-time teaching in a public or private high school in their home  
38 region.

39  
40  
41 **Chapter V. IMPLEMENTING AGENCIES**

42  
43 **SEC. 14. *Science Education Institute (SEI).*** – The DOST-SEI shall be the main  
44 implementing agency of the provisions in this Act. The SEI shall be responsible for  
45 evaluation, award-giving, and monitoring of scholarship grants and awardees. The

1 Institute is also tasked with coordinating with other relevant agencies in the fulfillment of  
2 the goals of this Act.

3  
4 **SEC. 15. *Department of Education (DepEd).*** – The DepEd is hereby tasked to  
5 ensure job placement and hiring of qualified graduates under this program as secondary  
6 school teachers in science, mathematics, and related technology courses, and to ensure  
7 that these teachers are hired at Special Science Teacher salary grade levels, as specified  
8 in this Act. The Department is also tasked with the evaluation and monitoring of hired  
9 teachers under this program.

10  
11 For this purpose, the Department shall create new contractual positions in public  
12 high schools to ensure placement of the qualified teachers under this program. It shall  
13 also establish a special fund that private high schools may tap to meet the required salary  
14 upgrade of these hired teachers.

## 15 16 17 **Chapter VI. MISCELLANEOUS PROVISIONS**

18  
19 **SEC. 16. *Review and Monitoring.*** – The DepEd, CHED, and DOST shall report  
20 to the President and Congress after the first three years, and annually thereafter, on the  
21 implementation of the provisions of this Act and submit recommendations for its  
22 improvement.

23  
24 The Departments are also tasked to monitor the hiring in high schools of scholars  
25 under this program, and to undertake such tracer studies and include these in the annual  
26 reports.

27  
28 **SEC. 17. *Implementing Rules and Regulations.*** – Within sixty (60) days from  
29 approval of this Act, the DOST and the DepEd shall promulgate the rules and regulations  
30 to effectively implement the provisions of this Act.

31  
32 **SEC. 18. *Appropriations Clause.*** – An additional amount of Two Hundred  
33 Million Pesos (Php200,000,000.00) annually is hereby appropriated for the two-year  
34 scholarships of an additional 1,500 students per year under the DOST-SEI S&T  
35 Undergraduate Scholarship Program, to be sourced from the earnings of Philippine  
36 Amusement and Gaming Corporation (PAGCOR) and the Philippine Charity  
37 Sweepstakes Office (PCSO), for the next seven years, or until 10,000 new teachers have  
38 been hired under this program.

39  
40 In order to provide the necessary funds for the new contractual positions created  
41 under this Act, an amount of Two Hundred Million Pesos (Php200,000,000.00) shall be  
42 appropriated to the DepEd, beginning two years from the effectivity of this Act, and for  
43 ten years thereafter, for the upgraded salaries of hired teachers under this program.

44

1           **SEC. 19. *Separability Clause.*** - If any provision or part hereof, is held invalid or  
2 unconstitutional, the remainder of the law or the provision not otherwise affected shall  
3 remain valid and subsisting.

4  
5           **SEC. 20. *Repealing Clause.*** This Act amends the service obligation specified in  
6 Section 13 of R.A. 7687, otherwise known as the "Science and Technology Scholarship  
7 Act of 1994." All other laws, decrees, executive orders, proclamations, and  
8 administrative regulations or parts thereof inconsistent herewith are hereby repealed or  
9 modified accordingly.

10  
11           **SEC. 21. *Effectivity Clause.*** – This Act shall take effect fifteen (15) days after its  
12 publication in the Official Gazette and at least two (2) national newspapers of general  
13 circulation.

14  
15  
16  
17           *Approved,*