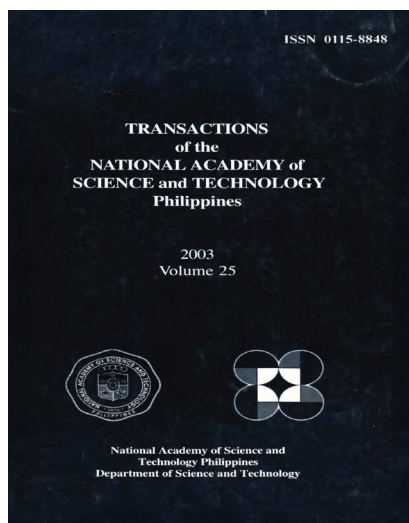


Transactions NAST PHL, is the official journal of the National Academy of Science and Technology Philippines. It has traditionally published papers presented during the Academy's Annual Scientific Meeting since 1979 to promote science-based policy discussions of and recommendations on timely and relevant national issues as part of its functions as a national science academy. Starting in 2021, this journal has been open to contributions from the global scientific community in all fields of science and technology.

---



## Demographics and Education

**Acd. Bienvenido F. Nebres. S.J.**

Member, National Academy of Science and Technology  
President, Ateneo de Manila University  
Loyola Heights, Quezon City

---

### Citation

Nebres BF S.J. 2003. Demographics and education. Transactions NAST PHL 25(2): 381-387. [doi.org/10.57043/transnastphl.2003.4741](https://doi.org/10.57043/transnastphl.2003.4741)

### Copyright

© 2003 Nebres BF S.J.

## **DEMOGRAPHICS AND BASIC EDUCATION**

**Acad. Bienvenido F. Nebres, S.J.**

Member, National Academy of Science and Technology  
President, Ateneo de Manila University  
Loyola Heights, Quezon City

### **Abstract**

From data obtained during the work on Division Elementary Development Plans (DEDP) for the 20 poorest provinces in the Third Elementary Education Project (TEEP) and from more recent data of the Department of Education, we would like to explore the challenges posed by demographics on providing elementary education to all Filipino children. The data show us: (1) The pressure on number of teachers, classrooms and budget; (2) High dropout rates in the poorest provinces (about 20% in the first two grades); (3) Health problems especially lack of water and toilets; (4) Problems of distribution; (5) Diversity of the system.

For example, there are many students and not enough classrooms in urban areas and, on the other hand, classrooms without students in some rural areas because there are not enough students to meet minimum requirements.

Some conclusions are that the size, diversity and complexity of the problems do not allow for centralized solutions. It is important to seek solutions on the division or district level.

**Keywords:** demographics, elementary education, diversity DEDP, TEEP

### **Introduction**

In the middle 1990s (1994-99), I directed a team at the Ateneo de Manila in developing the Division Elementary Development Plans (DEDP) for 20 of the poorest provinces in the country (part of the Social Reform Agenda of the Ramos administration). In 1997-98 I gave talks, first to a group of Fulbrighters, then at the University of the Philippines (U.P.) College of Education and at the Legislators'

Forum in the Batasang Pambansa on “Urgent Issues in Philippine Education.” This address follows the outline of those talks, but with more recent data. It is focused on public elementary and high school education.

### A Very Large and Growing System

1. First, the public elementary and high school system is a very large system.

According to the Manila Bulletin, June 9, 2003:

- There are 13.3 million elementary school students, of which 12.3 million or 93% are in public schools. This percentage has been stable for the last many years.
- There are 6.3 million high school students, of which 4.97 million or 79% are in public schools. This percentage has increased from the 70% five or so years ago, reflecting the transfer of many students from private high schools to public high schools.

There are 36,759 public elementary schools and 4,629 public high schools in the country<sup>1</sup>. From my experience of working in the Third Elementary Education Project with elementary schools in Benguet, Ifugao, Kalinga, Apayao in the north, Antique, Biliran, Leyte in the Visayas and Agusan del Sur, Surigao del Sur, North Cotabato and Zamboanga del Sur in Mindanao (and other poor provinces), many of these 36,759 elementary schools are in very remote areas — many hours hike away, in isolated islands, across rivers, etc. Education has to be delivered in a country with a very difficult geography of islands, mountains, rivers, etc., not to mention areas where armed conflict or political strife poses a threat to the security of both pupils and teachers.

The Department of Education (DepEd) is one of the largest government departments with around 500,000 (exact figure for 2001-02: 500,943) personnel, comprising about 36% of government employees. Close to 90% (88.72%, to be exact) of its personnel are teachers who are deployed down to the barangay level to teach at the barangay schools.

2. Second, the system is growing very rapidly. Among the reasons are:

- the continuous population growth at 2% and, for city schools, massive migration to urban areas. For example in the city of Marikina, Mayor Fernando said that there was a 20% increase this school year
- the lowering of school age to 6 in 1995
- free public secondary schooling initiated in 1988 and the nationalization of locally funded barangay high schools which created a large increase

in the population of the public high schools. More recently, because of the economic downturn, transfer of a significant number of students from private to public high schools occurred.

3. Yet budget constraints prevent increasing resources in terms of physical facilities, instructional materials and number of teachers.
  - the government has worked to upgrade the salaries of public school teachers (from a basic monthly salary of around P3,100 in 1992 to P8,600 in 1997 to P9,939 in 2002 for Teacher I, the lowest paid teacher<sup>2</sup>), which is very laudable.
  - The downside to this increase is that salary expenses currently absorb more than 90.30%<sup>3</sup> of the CY 2003 DepEd budget.

Thus, given a budget of around P106 billion (P106,409,275,000) for CY2003 (which represents 13.2 % of the national budget)<sup>4</sup>, there has not been a commensurate increase in the number of classrooms or number of teacher items to take care of the increasing student population.

- In the TEEP provinces, an appalling 55% of the schools have no electricity, 84% have no water, and 62% have no toilets. One can imagine the health problems of children in these schools.
4. Let us take a look at data in selected divisions:  
The following high schools in Marikina have very large classes with 70 or more students.
    - Concepcion Integrated School
    - Sta. Elena High School
    - Marikina High School
    - Tañong High School
  5. When I wrote in 1998, most schools could only provide a textbook for 3 to 6 students. The Textbook Privatization program introduced around 1997 has actually made things worse. Secretary Edilberto de Jesus has said that this has led to students in a class maybe having a book each, but three different books. You can imagine the problem of students and teachers. In 1997 the national government's budget allocation for textbooks and teacher manuals could only provide a mere P25 for each child or around 5% of the estimated almost P500 for a complete set of 8 textbooks per child.
  6. There has been a continuous decline in the quality of public education
    - Although most children have access to a school (the national participation rate for elementary education is over 90%), only around 70% complete elementary school.

- Our data from the TEEP indicated that the highest dropout rate in the poorer provinces is in the first two grades, 20% (1 in 5) drop out with only 1 or 2 years of schooling.
  - About 25% of those entering high school eventually drop out. Thus for every 100 children who enter grade 1, only 70 finish grade 6 and around 50 finish high school. In the poorer provinces, completion rate is much lower.
- The saddest point of all is the extremely poor performance of our students in all measures of achievement, learning only 30%<sup>5</sup> of the needed competencies and scoring at the bottom in all international achievement tests in mathematics and science (compared to, say, Thailand which ranks in the middle together with the United States). Putting our high participation rate and very low achievement rates together, an international report says, "Filipino children go to school, but they do not seem to learn."

### A Very Diverse System

The education system is also very diverse. There are complete elementary schools in urbanized centers with a principal and basic facilities. However, 54% or more than half of the total number of schools are without principals. In the poorer provinces, majority of the schools offer only the first four grades or are incomplete and these are headed by teachers-in-charge.

We have Rizal High School in Pasig with over 20,000 students (25,661) over 40+ first year sections. On the other hand we have districts in Ifugao where classrooms are empty because they cannot get enough students to meet the DepEd minimum of 35 students per class. The concerns and logistics of schools differ from the dense, overpopulated areas to areas with very dispersed populations, from cities where the main concern is traffic, drugs, malls and overcrowding to mountain, island and swampy areas which are inaccessible through great parts of the year.

We have a great diversity of cultures: lowland cultures, tribal communities, the different communities in the south. They have had diverse experiences of education. For example, many of the tribal communities in the Cordilleras have had a long and strong tradition of education (and English), while many of the Southern communities have had little experience of organized elementary or high school education.

We have diverse language situations. In Manila or Cebu, some families actually use English at home. We have the Tagalog regions, where Filipino comes easily, and Cebu which has prohibited the use of Filipino in schools. In the Cordilleras, the home language may be Bontok or Kankay, the lingua franca is Ilocano, and the school language is English and Filipino.

Some groups also face particular odds because of size, geographical and cultural isolation, language, and/or lifestyle, such as the children of ethnic minority groups (e.g. the Ifugao, Ibaloi and Kankan-ey in the Cordillera region; the nomadic Manobos and Lumad tribes in Mindanao and the child laborers and migrant workers.

Yet the structure of the school system prescribes uniformity: same textbooks (with a bias for the urban setting), same curriculum, same prescribed number of hours (whether the school has 1 or 2 or 3 sessions per day), same classroom design and standard regardless of whether the school is in a river town in Agusan del Sur which gets flooded regularly, in a dry and dusty barangay in Antique or in a cold and windy mountain village in Benguet. We fear that if we do something different elsewhere, we may be treating the students there like second-class citizens and so we insist on doing the same things.

### **What Do We Do with a Problem Like Basic Education?**

Some Responses:

#### 1. Scaling up the response

As of September 2002, some improvement in the textbook situation has been reported. Around 62% of the textbook requirement in the priority subjects of Math, Science, English, Filipino, and Social Studies for 2002 have reportedly been procured or delivered already. This has resulted in improvements in textbook to pupil ratio ranging from 1:1.97 for Grades 1-4 to 1:3.69 for High School. In the other subject areas, only around 44% of the textbook requirement has been met.

- For teachers and classrooms, the color-coding of data by division and school helps identify the problem, but major backlogs remain.

#### 2. Focusing on divisions (provinces and cities)

- Some Governors and Mayors have taken a greater role in developing their schools. Here are some success stories:

#### Synergeia Projects:

Project: JUMPSTART (Nueva Vizcaya Local Government)  
- Elementary, Pre-School - English & Math textbooks

Project: JOSIE (Bulacan)  
- Elementary – English & Math textbooks

Project: REY (San Fernando, Pampanga)  
- Elementary – English textbooks

Project: RAUL (Concepcion, Iloilo)  
 - Elementary – English & Math textbooks

Project: JETT (Ajuy, Iloilo)  
 - Elementary - English & Math textbooks

Province of Bulacan

### 3. Improving the DepEd Information Systems

A key area in pushing for the necessary budget for teacher items and classrooms is the database and presentation of the data to the national government. One major problem, for example, is that the number used by the DBM to indicate whether the present number of teachers is sufficient or not is the student/teacher ratio. There are two major problems with this indicator:

- It is averaged over the whole country and thus it shows an acceptable ratio (1:36 for elementary and 1:40 for High School for 2002-2003), because the large classes are averaged out with very small classes (but of course we cannot put together a class in Marikina with one in Ifugao)
- A number of those holding teacher items are not actually teaching. They may be doing staff or administrative work. One reason for this is that the DepEd budget does not contain items for staff — so teachers have to do staff work.

An important area of work is to present the correct indicators to the DBM so that sane decisions can be made about needed teacher items.

### 4. Some ideas to consider:

- a. Two major areas which have suffered the most from the minimal allocation for MOOE are teacher training (in many instances, the teachers have to personally shoulder the cost of training) and instructional supervision (schools without principals are seldom visited by district supervisors or other technical personnel because travel funds for such visits are inadequate.)
- b. Given budgetary limitations, the rationalization of teacher deployment and utilization decisions becomes critical. Happily, current efforts towards improving the MIS (like the color-coding scheme) may be succeeding in enlightening decision-making on deployment or utilization of teacher items so that they go to the schools where the greatest shortages exist.

**Notes**

- <sup>1</sup> Source: Research and Statistics Division, Office of Planning Service (DepEd). Data as of 19 June 2003.
- <sup>2</sup> Total annual compensation, including allowances paid on annual basis, is P154,009.68 or P12,834.14 monthly.
- <sup>3</sup> For CY2003, the share of Personal Services (PS) is 90.30%; MOOE is 6.51%, and Capital Outlay is 3.19%.
- <sup>4</sup> In CY 2002, DepEd share in the national budget was actually higher at 13.7%. Increase provided this year is only around 1 billion pesos.
- <sup>5</sup> NEAT results from 1997-1998 to 2000-2001 ranged from 49.19 to 51.73 MPS. NSAT results for the same period ranged from 46.12 to 54.34. Both tests were discontinued in 2001-2002. Diagnostic tests were given in Grade 4 and 1<sup>st</sup> year in SY 2002-2003. The results for Grade 4 are as follows: Math-38; Science-39; English-42 MPS. For 1<sup>st</sup> year: Math-27; Science-28; English-30 MPS. The MPS indicates the ratio between the number of correctly answered items and the total number of test questions or the percentage of correctly answered items in a test.