

Antigua and Barbuda

Summary

The country of Antigua and Barbuda has introduced computers and the Internet in secondary schools in support of students' preparation for the CXC IT exam. An initiative placing three to four computers in six primary schools, with the intention of supporting younger students' early familiarization with computers, is also in process. In addition, the MOE is conducting a three-school pilot test of AbusSTAR, the Barbadian EMIS tool.

Policy and planning within the MOE have fallen behind these modest in-school efforts and behind developments in the field of ICT in education as well. With no solid link to strategy or to broader goals, Antigua's modest activities combine only loosely to enhance the delivery of education or the quality of teaching and learning in schools.

The economy of Antigua and Barbuda is heavily dominated by tourism, with additional revenues generated by assembly of goods ranging from



electronics components to mattresses. Agricultural production is intended for domestic sales.

Over the past 10 years, efforts to support ICT in education have focused on upper-secondary students'

Basic Data

Category	Date	Value
Population	2006	69,108
Per capita GDP (PPP)	2005	\$10,900
Economy, composition	2006	Tourism, manufacturing (assembly), agriculture
Literacy, total population 15 and over	2003	85.8%
Literacy rate (females)		NA
Gross enrollment ratio, primary	—	NA
Gross enrollment ratio, primary (girls)	—	NA
Gross enrollment ratio, secondary	—	NA
Gross enrollment ratio, secondary (girls)	—	NA
Number of primary schools	2007	58
Number of secondary schools	2007	~17

Sources: World Factbook, MOEY

Relevant Policies

Policy	Status	Date	Key points
No policy under consideration	—	—	—

Source: MOEY

preparation for the CXC IT examinations. Computers have been introduced in primary schools through the combined efforts of government and local NGOs, parents groups, and other organizations. An ICT policy in education has not yet been developed; a national ICT policy is in process.

The Government of Antigua and Barbuda funds all education efforts without donor assistance. Education funding comprises roughly 11 percent of the national budget.

Policy and planning

Efforts within the MOE to develop an ICT policy for education have not resulted in policy adoption.

Computers in primary and secondary schools

Schools in Antigua and Barbuda are divided roughly equally between government schools and private schools. Government schools have generally benefited from support for student access to ICT, with

most of their emphasis placed on exam preparation for secondary students. In the absence of ICT policy, these efforts have not led to integration of technology into learning outside of the IT curriculum, nor to routine use of ICT among teachers.

Private schools offer a more varied picture, both in terms of student access and the availability of faculty with computer skills.

ICT in primary schools

The government has launched a pilot program supporting the establishment of small (3–4 computer) labs in six primary schools. The goals of this program, at present, are to test issues surrounding implementation of ICT in schools and to familiarize students with the use of computers. Computers in this program feature office-productivity software and are connected to the Internet via ADSL provided by Antigua Public Utilities. Use of the computers by students and teachers is largely ad hoc. Some members of the faculty at these schools do have adequate computer skills as a result of prior professional-development initiatives, including several introduced by OERU and current certificate programs offered to the general public by TLLs.

Future goals include expansion of the number of schools with computer labs and support for use of the labs by adults in surrounding communities. As a result of effective political representation, schools in two communities have received computer labs and support for community-focused programs of this type.

Private schools, and some public schools, have received computers as donations from their local PTAs or other organizations.

ICT Resources in Schools

School type	Number	Median enrollment	ICT profile
Primary schools, government	32	~200	<ul style="list-style-type: none"> ■ ~6 pilot schools with 3–4 computers; no ICT program in place ■ Other schools may have small numbers of computers as the result of donations, community efforts, etc. ■ Each school has 1–2 computers for administrative purposes
Primary schools, private	26	—	<ul style="list-style-type: none"> ■ Many schools have computers as a result of donations, community efforts, etc.
Secondary schools, government	9	—	<ul style="list-style-type: none"> ■ 1 lab per school ■ Focus on CXC IT curriculum

Source: MOEY

Teacher Professional Development Programs

TPD program type	Target population	Objectives	Scale	Barriers
Antigua and Barbuda International Institute of Technology (ABIIT)	Government workers, including teachers	Provide access to training in various areas of ICT	Scholarships available for all government workers	<ul style="list-style-type: none"> ■ No specific programs for teachers ■ General continuing education courses don't address goals or requirements of successful ICT use in schools

Source: MOEY

ICT in secondary schools

All of the country's nine public and eight private secondary schools have computers labs. These labs are used almost exclusively to enable 3rd and 4th form students to prepare for the CXC IT examinations. High demand for these preparatory classes and limited capacity creates pressure on scheduling, but most or all students who desire to are able to complete the IT elective. Students in lower classes typically do not have access to the computers.

No effort has yet been made to integrate ICT into teaching and learning in other areas of the curriculum. Discussion within MOE has identified integration as a desirable outcome, but no programs have yet been established to support increased access. Future goals include expanding student access to computers, enabling younger students to familiarize themselves with ICT and increasing use of computer tools for learning and productivity.

Teacher professional development

Teachers in Antiguan primary schools typically attend a two-year A.A. program at the Teacher Training College, operated in collaboration with University of the West Indies. Secondary teachers complete this same program, and then participate in continuing-education programs via the UWI Distance Education Center (UWIDEC) or other means. These programs do not currently address ICT.

There are currently no formal in-service TPD programs in Antigua and Barbuda. However many private and community-based organizations offer training in a range of ICT skills.

The foremost of these organizations is the Antigua and Barbuda International Institute of Technology (ABIIT), which was founded in 2001 to help Antiguan compete in the global economy by enabling them to earn associate degrees and certificates in disciplines such as accounting, banking and finance, and graphic design, as well as ICT-focused areas such as programming, network management, and Web design. Launched at a cost of US\$6.2 million, ABIIT includes a large computer lab, plus multimedia equipment and 20 computer workstations in each classroom. OERU has designated ABIIT as its Center for Specialization in Information Technology. ABIIT can accommodate a maximum enrollment of 1,440 students.

As government workers, teachers in Antigua and Barbuda receive scholarships offsetting tuition fees to encourage them to attend courses at ABIIT. In addition, the training division of MOE has in conjunction with ABIIT offered TPD in basic computing at various times.

Tertiary education and TVET

Tertiary institutions in Antigua and Barbuda include ABIIT, the Antigua State College, and the Antigua and Barbuda Hospitality Training Institute (ABHTI). The State College operates as a UWI School of Continuing Studies, offering two-year degrees that can include courses such as microcomputer applications for business use, and computer programming. ABHTI also includes an ICT center to support student learning.

EMIS and integration of technology by MOEY

Antigua and Barbuda has launched an EMIS pilot project, using the AbusSTAR system developed in Barbados. The three-school pilot includes TPD to help teachers master use of the software for data entry.

Antigua previously implemented the Excel-based Performance Management Tool (PMT) developed by OERU, also on a pilot basis. Although the PMT was not adopted on a systemwide basis, several schools involved in the pilot test continue to use the PMT templates to record and present data. The PMT pilot test highlighted the need for effective initial and ongoing TPD in relation to:

- Basic computer use to include use of Excel software
- Data-collection and entry processes and tools
- The importance of education information systems

In this way and in others, the PMT pilot test informs the current test of AbusSTAR. For additional information about EMIS in Antigua and Barbuda, please refer to the section, “Regional and national EMIS initiatives.”

Nonformal education

As mentioned, primary schools will receive support from the government to make computer labs available to the community at large to enable community members to gain ICT skills.

Barriers and challenges

In the absence of goals and objectives outlined in policy statements or planning documents, assessing barriers and challenges to ICT use in education is an artificial exercise. Programs underway in the primary schools are modest. In secondary schools, access to ICT appears to adequately enable students to prepare for CXC IT exams, although demand apparently has reached the limits of capacity. The education system, as a whole, places only limited emphasis on the use of computers and the Internet.

Efforts to increase emphasis on ICT use would require attention to TPD and curriculum in relation to ICT, and would likely encounter limitations in terms of human capacity, infrastructure, and maintenance. However, without more specific goals or objectives, assessment of the impact of these limitations is moot. (Maintenance has, however, already been listed as a challenge by Antiguan respondents.)

The EMIS pilot project is significant—especially in light of difficulties in information management in education encountered throughout the region. With prior ministry-level experience of EMIS implementation, the current effort in Antigua offers a well-structured test of the suitability of the locally developed AbusSTAR technology outside of its country of origin, Barbados.