

## Executive Summary

The present general review of the education system in Santa Catarina State, Brazil, examines the whole spectrum of education and research provision, and offers policy recommendations.

With a population of about 6.2 million, Santa Catarina is a relatively wealthy and economically progressive state. Both the federal government and the state authorities have invested significant resources in expanding education provision at all levels. An extensive raft of legislation and educational policy initiatives has been introduced, and education in all public education institutions is free.

Despite such praiseworthy efforts, the quantitative expansion of provision is not matched by the quality of the education provided, as measured by national and international tests. The key target for the future is therefore to raise the quality of student achievement, through improvements in all sub-sets of the education system, as summarised below.

### **The financing of public schooling**

In Brazil the three levels of government – federal, state and municipal – are jointly responsible for running and financing basic education. The valuation of education as a priority area in Santa Catarina is reflected in the pattern of the expenditure allocated to it. In 2009 Santa Catarina devoted 19.3% of its revenues to education services, which was, by a margin, the highest proportion for any category, including health and social security. In the same year, the tax revenue of Santa Catarina allocated to education was 29.5%, or 4.5% higher than the constitutionally decreed minimum of each Brazilian state's tax revenues to be reserved for education.

While public spending on schooling is high in relation to the Gross Regional Domestic Product, outcome indicators are not commensurate with the level of investment in Santa Catarina, suggesting that service delivery is inefficient, rather than under-funded. The federal and state governments could strengthen incentives for efficiency enhancement by adding conditionality to

some budget transfers and by introducing rewards for performance. Budget rigidities should be removed, especially those related to revenue earmarking. Policy action should aim at making budgeting more flexible, which would allow budget-making and planning to be guided by efficiency considerations and policy priorities in the first place.

School-based accountability pressures are important for efficient use of education resources. Funding should be geared towards enhancing school-level outcomes, such as learning achievement and school improvement.

## **Governance: system and quality management**

There are three types of public schools in Santa Catarina – federal, state and municipal – and a fourth category of private, fee-paying schools. The Secretariat for Education (SED) in Santa Catarina is responsible for the overall steering and monitoring of the system and for strategic planning and reforms. However, its remit is limited due to fragmented governance arrangements. A municipalisation process currently underway will further limit its competencies by putting all pre-schools and primary schools under municipal responsibility.

The capacity of the education system to manage change is relatively weak. Proper interfaces should be established between governance levels and between private and state providers of education. Without proper institutional arrangements to co-ordinate policies, the decentralisation process could negatively impact education quality by further fragmenting the system.

The review team recommends introducing state-based regulatory mechanisms for monitoring and co-ordinating education policies, to be complemented by regular institutional audits for quality assurance. Quality-related data about the system should be diversified beyond information on immediate learning acquisition and test performance. Data and policy analysis should be undertaken and distributed more widely and actively, possibly through an independent body for educational policy, research and analysis.

## **Access and equity including special education provision**

Santa Catarina, as Brazil itself, has a creditable record in honouring its commitments towards equality of educational provision, under a range of international agreements, and there is no gender imbalance in the participation of boys and girls in education.

Special education in Santa Catarina is run by the SED, with the support of the Santa Catarina Foundation for Special Education (FCEE, *Fundação Catarinense de Educação Especial*), assisted by local Associations of Parents and Friends of Exceptionals (APAEs, *Associações de Pais e Amigos dos Excepcionais*). In the absence of obligation for co-ordination, the links between governance levels and service providers in many municipalities seem to work on *ad hoc* basis. This likely impacts the reliability of diagnostic procedures, the rate of identification of children with special educational needs/children with disabilities (SEN/CWD), and ultimately, their access to education. In 2009, Santa Catarina devoted only 3.4% of its education budget to SEN/CWD, and many APAEs, despite their crucial role for the provision of services to SEN/CWD, need to raise income from other sources.

Less than one-third of all registered children with SEN/CWD are in mainstream schooling. Additionally, the review team is concerned that a substantial number of children with SEN/CWD remain unreached by and “invisible” to the education system or simply drop out before time. Statistical data is weak and there is a shortage of special needs education in general courses of teacher education.

SED should implement measures for improving accurate data gathering and data sharing among various levels of government and among ministries, and all APAEs should be encouraged to strengthen their links with health and social welfare agencies, and to publicise their services more widely. An agreement between municipalities, private providers and the state should be reached on what are the obstacles for children with SEN/CWD in regular schools. These obstacles should be removed in a joint effort.

## **Curriculum and textbooks in pre-school, basic and secondary education**

The Federal Ministry of Education (MEC) in Brasília sets the curriculum policy, operates standardised learning assessments and provides textbooks for students in public schools. The SED of Santa Catarina is responsible for implementing national policy, and for shaping the educational experiences of the citizens in the state.

As most schools work on a three-shift basis, the maximum hours of instruction available for individual pupils per week are 20 “clock” hours. There is a mismatch between the *intended curriculum* and the *time available* for teaching and learning in the classroom. The subjects are treated as compartmentalised entities, rather than in a cross-curricular fashion.

Teachers expressed satisfaction to the review team on the general quality of the textbooks available. There were reservations that the vocabulary was pitched too high for many pupils, and disquiet was also expressed that textbooks were not always delivered in time for the start of the new school year.

If the learning time available to students cannot be increased at present, then the review team recommends reduction of the number of compulsory subjects. There should be more room for individual choice of subjects by students. A new approach to classroom teaching and learning is required, with much more scope for teacher-pupil interaction. Furthermore, the state policy on inclusive education must be accompanied by a much more individualised approach to teaching and learning.

## **Student assessment**

Perhaps the most central concern of the Santa Catarina authorities regarding education is the poor level of performance of students as measured on national and international tests. Student outcomes remain well below what might be expected. Significant new targets are being set for improved performance by 2022, and the challenge now is how to bring them about.

Santa Catarina uses a combination of national assessment tools, and Brazil has participated in the OECD Programme for International Student Assessment (PISA) since 2000. Santa Catarina will also participate as an adjudicated region in PISA 2012. The performance of Santa Catarina has been better than that of other Brazilian states, although overall the performance of Brazilian students on the tests continues to be in the bottom category of countries participating in the survey.

It is essential that the SED and the CEE (*Conselho Estadual de Educação*, State Education Council) shift their attention from inputs and processes to effective ways to improve student *learning*. There is need for clear guidelines, including mark descriptors, so that teachers can make valid decisions in evaluating students' learning and their eligibility for promotion. With the support of key stakeholders, the examinations for entering higher education should be reformed to ensure more fairness and transparency in the examination process.

## **Professional and technological education**

In Brazil, professional-technical education at secondary level is termed EPTNM (*Educação Profissional Técnica de Nível Médio*), while that at undergraduate and postgraduate levels is referred to as EPTNS (*Educação*

*Profissional e Tecnológica de Nível Superior*). EPT (*Educação Profissional e Tecnológica*) is the overall term for the multi-level professional and technological sector. There has been considerable public debate on the appropriate content framework of technical education in Brazil and what is now favoured is the integration of professional-technical education with general academic education.

Santa Catarina is not in the forefront of the national movement for change in professional education. The review team considers that the integrated approach to EPT is recommendable also for Santa Catarina State. It weakens the division lines between regular and professional education, and has the potential to improve the permeability of learning pathways across secondary and higher education, hence motivating upward professional development.

The report further recommends a single strategy integrating all existing initiatives and programmes, irrespective of their origin or jurisdiction, whether federal, state or private. A system of indicators for measuring performance, the analysis of data and the establishment of a qualifications system with a sound grounding in learning outcomes should be introduced. Furthermore, SED should support the establishment of career guidance services, which are missing at present.

## **The teaching career and teacher education**

Teachers need to form a central dimension of any policy focussed on the improvement of the quality of education. The review team found that the image of teaching as a career in Santa Catarina was poor and in decline. There is an urgent necessity to rebuild the status of the profession and to project it as a career choice of value and importance.

A shift system and large classes impinge significantly on teachers' time for planning, evaluation and pupil feedback. Much of the teaching is of a traditional, teacher-centred model, and classroom environment of some schools is inimical to high quality teaching and learning. Quality teaching input is also affected by high rates of teacher absenteeism. The practice of relying on a very large cohort of "temporary" teachers is also not conducive to sustained, progressive teaching. Santa Catarina has no school inspectorate, and the evaluation of teachers' work hitherto has not been well structured.

The review team formed the view that the quality of teacher education is seriously unsatisfactory and that there is great quality unevenness. The team recognises that both federal and state authorities are undertaking steps in reforming initial teacher education, and in improving in-service teacher education.

The team recommends that SED draw up a comprehensive policy paper on its policies related to the teaching career. The proportion of “temporary” teachers and the currently heavy teaching loads should be reduced. Ideally, the recently introduced school management assessment scheme should incorporate a teacher evaluation dimension, and salary schemes should provide incentives for improving quality.

## Higher education

To achieve its economic and social goals, Santa Catarina faces two main challenges regarding higher education – increasing participation and graduation rates, and improving the quality and efficiency of the education provided.

Student participation in Santa Catarina was 26% of the 18 to 26 age group, slightly above the average for the rest of Brazil (25%), but below the South American average of 30.3%. The most successful students apply to the federal and state higher education institutions (HEIs), but they only cater for 18.3% of enrolment. About 66% of all enrolled students are evening students. The mixture of governance and funding models in the public sector, as well as the proliferation of small private institutions makes for a complex system of tertiary education that potentially fosters inequality of access, distorts student preferences and is inefficient in the use of resources.

Federal and state universities, which are free, have the highest demand for entry and, consequently, are highly selective. Admission decisions are made on the basis of results achieved at the entrance examination, the *Vestibular*, and due to that a proportionately higher number of accepted students come from private schools and from homes able to pay the fees for such schools. About a quarter of the student places available in the non-public universities remain unfilled.

Quality assurance is too institution-centred and input-based. More importance should be given to the analysis of educational outcomes and institutional impact. The feasibility of founding a state-wide independent quality assurance agency should be explored. The agency would establish internationally accepted, relevant accreditation criteria. Part of the quality concept should be the internationalisation of higher education, which is highly desirable but to date very marginal. If it is to have real impact, internationalisation will require special efforts by all actors involved, in particular promotion of second language proficiency at all levels of the education system.

The team recommends that the National Education Council (CNE, *Conselho Nacional de Educação*) take the lead in formulating a strategic approach to the development of the higher education system. A number of affirmative initiatives are in place in support of equality of opportunity for poorer students, yet funding through loans is not easily available. Changing this and allowing for a better use of federal and state funding for direct financing of students would help to improve access to tertiary education for all students in Santa Catarina.

## Research, development and innovation

Because of its significance for economic and social development in contemporary society, the reform of the RDI system in Santa Catarina is an essential element in the reform of higher education in the state and of its knowledge institutions.

In 2007, over 75% of researchers were located in Brazilian universities, with 20% in private enterprises. By contrast, in OECD countries, almost 70% of RDI workers were either directly employed, or actively collaborating with counterparts in enterprises, and less than 25% were in the university sector. In Santa Catarina, the Federal University (UFSC) is the only university in the state which is regarded as a leading RDI institution, by international standards.

At a time of consistent growth in Brazil's output in basic sciences, which reached a 2.02% share of international published articles in 2007, Brazil's share of the world's registered patents was only 0.06%. One reason for Brazil's poor record in converting scientific knowledge into practical results is the country's low level of investment in RDI. While Brazil dedicates only 0.98% of its GDP to RDI, China invests 1.22%, and Brazilian corporations, which should be most responsible for creating patents, are investing little in their own research.

Currently Santa Catarina supports a range of networks, incubators and innovation centres. The state government should consider the development of a comprehensive policy and governance framework and the introduction of internationally recognised indicators and metrics for monitoring and evaluation of RDI outcomes. The gross expenditure in RDI should be increased and the funding mechanisms restructured. There also needs to be a co-ordination of RDI resource allocation, a co-ordinated effort to promote English as a second language for RDI workers and the adoption of contemporary RDI performance assessment tools. There is also a need to improve the relevance, quality and impact of RDI initiatives and programmes.