

**GEORGIAN EDUCATION SECTOR STUDY -- The Higher  
Education System --**

(Final Version)

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# 1 Introduction\*

This assessment of higher education (HE) in Georgia is organized in four parts. The introduction sets out the method of work. Section 2 describes the role of government, its reform agenda, the legislative and regulatory background, and the dimension and allocation of public resources. It then summarizes key characteristics of the higher education system in terms of the institutional providers, the staff employed, enrollment trends, and progression through the system. Throughout, problems are identified and discussed. Section 3 takes the analysis further by providing a microperspective on three fundamental areas, namely relevance, quality, and efficiency. These are described on the basis of stakeholder surveys, case studies, and audits of individual institutions that cooperated in this study. Finally, section 4 concludes with a series of recommendations for system reform.

## 1.1 Method of work

### 1.1.1 Stakeholder interviews

At the beginning of this study, the team undertook extensive stakeholder interviews. These included government officials, civil servants, members of parliament, higher education administrators, employers, representatives of the donor community, experts involved in technical assistance, employers, teaching staff, and, prominently, students. The conversations helped define local perceptions of the problems in higher education and relate them to international experiences with change and reform management in HE.

### 1.1.2 Surveys and workshops

Next, the team identified a strategy for data extraction from three key groups of stakeholders: students, teaching staff, and employers. Random (with the exception of the employer survey) samples of the groups were approached through semi-structured interviews lasting approximately one to two hours. The results of the questionnaires were coded and evaluated. Summaries of the questionnaires were then discussed in stakeholder workshops. These fora helped assess the accuracy of our results. They also allowed to discuss reform proposals with stakeholders.

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\* This report would not have been written without the tireless cooperation of Giorgi Meshkidze and Dato Melua who also commented on a first draft. Key inputs further came from Valeri Melikidze, Olga Muskhelishvili, Ia Shekriladze, Nino Tsereteli, and a group of exceptionally dedicated local consultants. The staff at the World Bank Resident Mission ensured that stakeholder concerns be given due weight by making possible impossibly dense meeting schedules and by facilitating a congenial work atmosphere. Throughout, I benefited from discussions with Helen Shahriari and Chris Sealy as well as from the association with the large Georgia Education Sector Assessment Team. The usual disclaimer applies.

### 1.1.3 Audit of resource allocation

The initial stakeholder interviews made clear that it would be important also to develop an inquiry into resource management at three especially important state universities (TSU, GTU, GAU). This turned out to be by far the most complicated part of this assessment.

### 1.1.4 Note on data reliability

A problem that plagued this assessment was the comparability of official data from different sources. For example, according to the Department of Statistics, in 1997 12,451 male students enrolled on state order places. By contrast, the Ministry of Economy reports only 8,089, and this includes men *and* women. Total spending on education in 1997 varies from Lari 46.3 million (Department of Statistics) to Lari 51.3 million (Central Budget of Georgia). Domestic and international data sources are inconsistent as well. Budget data retrieved from the IMF's website show total HE educational and scientific expenditures as Lari 21.0 million and Lari 21.1 million for 1998 and 1999, respectively. The Central Budget deposited in the parliamentary library is more generous: it gives Lari 25.9 million and Lari 24.9 million for educational spending alone over the same period. For individual institutions, differences are to the order of up to 25 per cent. Occasionally comparability is difficult because the reporting period is an academic year vs a calendar year. At times reporting periods are not properly defined and data are updated on a continuous basis. Category codes for the same items vary depending on which institution reports them. The definitions of what constitutes a reported item are also different across institutions, and sometimes even within institutions. Whenever possible, the team looked for additional evidence to corroborate judgments as to what information appeared most reasonable. Data we were not confident about is either not used in this report, or clearly marked as such.

*Universities never reform themselves.*

**Lord Melbourne**

(British prime minister, mid-19th Century)

## **2 How the System Works**

### **2.1 Legal and regulatory framework**

The Georgian education system is regulated by the 1997 Education Law. Prior to the adoption of this Law, the Ministry of Education had elaborated a "State Program for Education Reform and a Plan for its Realization" that the Cabinet of Ministers endorsed in September 1995. This blueprint for reform is described in Perkins (1998). Both the Reform Program and the Law are geared toward aligning the Georgian education system with international practices. This pertains to principles and standards of education provision, system structure and system governance, and generally attempts to devolve what in the past was a highly centralized system.

The provisions of the Reform Program and the Law most relevant to higher education are the following:

- introduction of privately operated institutions of higher learning
- regulations concerning licensing and accreditation
- curriculum reform
- maintenance of so-called “state-order” contingents of government funded and allotted scholarships
- introduction of a two-tier, four-plus-two system leading to bachelor and masters degrees, respectively.

Regarding privately operated institutions of higher learning, the Law effectively sanctioned ex-post the growth of private sector activity in higher education provision. As in most other countries with a Soviet-influenced education system, Georgia had virtually no tradition of private universities or institutes. One of the first institutes to go private was Tbilisi Independent University (TIU), a private-sector branch of Tbilisi State University (TSU) which is Georgia’s largest and most important institution of higher education.

Private universities face a different regulatory and tax regime. For example, private institutions are liable to pay property and profit taxes (of 20% on fee income) from which state institutions are exempt. As a rough estimate, profitable private universities are taxed 50-55 per cent of their income; unprofitable private institutions that do not own but lease their premises pay the employers’ contribution of 31 per cent; state universities pay 19-20 per cent. To the extent that state universities have more private than public income, this regulation disadvantages the private sector.

In principle, institutions require a license to operate. This license is granted by the Ministry of Education and presupposes the existence of an appropriate study programme, a qualified teaching staff, and suitable premises on the part of the applicant institution. In practice, it is doubtful that this provision reflects any degree of public control over the seriousness of the involved institutions. Study programmes are not subjected to independent review. What seems to happen on occasion is that institutions seeking a license copy and submit study programmes of already licensed institutions to the Ministry. Hence, the capacity of study programme delivery is not under review. This suggests that license provision, while adequately dealt with in the Law, requires a much more serious implementation effort. To the extent that the granting of a license is aimed at correcting a market failure -- which in this case consists of incomplete information that makes it difficult for prospective students to make rational choices about where, and what, to study -- the current practice is unsatisfactory. Stakeholder interviews confirmed the low prestige associated with licenses and the low credibility of the licensing process as such (cf. Shahriari 1999, 26). In fact, it seems rare that licenses are refused; indeed circumstantial evidence suggests that they also can be bought. Internal dissatisfaction with the legal situation convinced the Ministry to stop issuing licenses in 1996. Following a new law on licensing passed in 1999, licensing was resumed on the basis of new regulations. How well this process works remains to be seen.

The Law on Education also has a provision on accreditation. It states that independent institutions of learning have to seek accreditation from a Committee on

Accreditation. This Committee assesses the suitability of teaching staff and curriculum content in making its decision. In reality, there is a wide gap between this provision and its implementation. To begin with, it is doubtful that the composition of the Committee, which the Minister of Education, chairs guarantees the kind of sympathetic but objective and critical review without which any accreditation exercise remains meaningless. Furthermore, the Committee – or its Subcommittee on “Attestation” – does not yet operate properly. According to the Ministry of Education, the situation will be remedied pursuant the adoption of the new Law on Higher Education. This law, in turn, is only beginning to be discussed, in a joint commission made up of ministry officials and members of the parliamentary committee in charge of education. Hence, for the time being, both private and public institutions of higher learning in Georgia award certificates whose validity in terms of content, quality, and comparability to like degrees in other countries cannot be assessed on other than subjective criteria. This is clearly a very serious problem for the current operation and the future viability of the system.

The Law mandates the reconciliation of Georgian traditions and international practice in curriculum design and delivery. Reform is aimed at producing graduates with the attitudes and skills needed to prosper in, and contribute to, a market economy and democratic society. Thus, it resembles the principles underlying education provision in OECD countries. In effect, curricular reform began in 1996, a year before the adoption of the Law on Education. As was to be expected, it did not happen across the board but was promoted in pilot projects. The main players in these endeavours tended to be individual university departments, partners from foreign universities, and donor agencies. Some of the more successful projects are described in the section on curriculum reform below.

The Law continues the traditional Georgian practice of “state orders”. This refers to a practice by which the government each year determines the distribution of university intake across disciplines on the basis of perceived demand for specific professions. Hence, for each subject and institution it funds a certain number of places for which the receiving institution gets a subsidy and the accepted student a scholarship. Annual state orders number in the thousands; hence the government’s influence on student intake is significant. In fact, the extent to which this policy is used bears some semblance to the features of a planned economy. It is problematic for at least three reasons.

- First, there is no educational planning tool that would help the line ministries in charge of determining state orders assess prospective student demand. For example, bureaucrats in the Ministry of Culture operate without a clear frame of reference when suggesting Georgia’s future demand of, say, violin players. Hence, numbers are arrived at in necessarily arbitrary fashion. Often in fact it is the Ministry of Economy which acts as a sort of clearing house for the line ministries to determine state orders simply by extending existing time series.
- Second, the government is in a weak bargaining position with the universities when trying to reduce state orders. Evidence from the budget cycle suggests that especially the rectors of the universities based in Tbilisi prevail over government ministries intent on reducing outlays before submitting the draft budget to parliament for consideration. The government also has little control over the allocation of state orders in universities outside Tbilisi that are co-financed by the

local authorities. Hence, despite a formally fairly high degree of centralization in the system, effective control over outlays rests only partially with the government (for a brief discussion of the lack of central control over the regions, see Melikidze (1998, 51-3)). Enforcement is difficult in part because the HE unit at the Ministry of Education has a staff of only four.

- Third, state orders are never subject to ex-post evaluations. This means that the actual labour market absorption of state order graduates, whether in their field of study or in another profession, is not monitored, let alone evaluated systematically. Therefore, although the government's justification to promote certain subjects is not in doubt, the process of state orders does not conform with any strategic direction of the higher education system. Instead, it is a largely unreflected policy that contains a worrisome potential for waste, irrelevance, and low standards. In sum, this suggests either that state orders be done away with, or that the new Law on Higher Education be augmented by a series of operating principles, at least for as long as the practice of state orders is continued. It also suggests that currently neither the Ministry of Education nor the other ministries with responsibilities in the area of higher education have the planning and management capacity to handle such a complicated planning task as projecting student demand. Therefore, they are not in a position to fulfill the mandate of the Law on Education.

The Law endorses the introduction of the Anglo-Saxon model of four-plus-two years of undergraduate and graduate studies, leading to a bachelor's and a master's degree, respectively. Universities began to implement this shift as early as 1996. It is not clear to what extent this change represents a fundamental reorientation of the system of study. In countries with long traditions of four-plus-two systems the undergraduate degree typically gives the students a basic university education enabling them to acquire a skill profile for junior positions (in mostly white-collar professions) or to advance to graduate study. The latter, in turn, puts a greater emphasis on analytical and research skills as well as on more specialist knowledge, and is open to mid-career professionals as well. Our surveys of teaching staff as well as in-depth interviews with university officials and employers indicate that the undergraduate stream is not always held in high regard. First-tier graduates appear to have more problems than second-tier cohorts in finding a job in their profession. This cannot be explained merely by "less" relative to "more" knowledge obtained in undergraduate or graduate study programmes. Rather, it suggests that the introduction of four-plus-two merely split the previous single-track five-year study programme, without adapting contents such that the first tier would lead to a generally accepted degree in its own right. This is clearly suboptimal. It also will be very difficult to reform for it is not only course programmes that need to be redesigned: attitudes in Georgian society to fast-track professional qualifications in higher education need to change as well.

## **2.2 Institutions**

In 1997/98 there were 23 (26, if all academies are included) public and 159 private institutions of higher education in Georgia. Total enrollment was 127,420 students which represents a decrease of 6.3 per cent since 1994/95. The relative weights of the public and private system have hardly changed from the mid- to late 1990s; the

private sector accommodates just under a third of all students. What has changed significantly is the share of the students that pay for their tuition in the public universities. In 1994/95 they accounted for only 10.7 per cent of enrollment; in 1997/98 for 26 per cent. Taken together, about half of all students now pay for their tuition. Given the relatively high and increasing weight of private education, any higher education reform programme must address both the public and the private system to be effective.

In the public sector, roughly two thirds of enrollment was full-time. Another third studied on distance-learning programmes which puts Georgia far ahead of many advanced economies that are only beginning to exploit the potential of this technology. Less than two per cent took evening classes. In the private sector, almost all enrollment was full-time.

Table 2.2.1 -- Enrollment in HE Institutions

<u>Year</u>	<u>Public</u>				<u>Private</u>		
	<u>Total</u>	<u>Day</u>	<u>Evening</u>	<u>Distance</u>	<u>Total</u>	<u>Day</u>	<u>Evening</u>
1994/95	94,642	55,457	6,242	32,943	41,348	37,816	3,532
1995/96	82,230	48,518	3,449	30,263	42,006	38,898	3,108
1996/97	86,506	54,681	2,577	29,248	42,889	39,546	3,343
1997/98	87,258	58,813	1,740	26,705	40,162	37,207	2,955

Source: Department of Statistics

Table 2.2.2 -- Enrollment in Tuition Track of State Universities

<u>Year</u>	<u>as % of total enrollment</u>
1994/95	10.7
1995/96	12.8
1996/97	18.1
1997/98	26.1

Source: Department of Statistics

The share of female students is currently higher than in the late Soviet period. It is especially high in the private sector. However, female enrollment ratios have been declining since the mid-1990s by an annual average rate of 1-2 per cent.

Table 2.2.3 -- Stocks and Flows of Enrollment (male students)

	<u>Public</u>			<u>Private</u>		
	<u>Stocks</u>	<u>Flow (+)</u>	<u>Flow (-)</u>	<u>Stocks</u>	<u>Flow (+)</u>	<u>Flow (-)</u>
1995/96	40,960	13,367	15,082	18,073	7,809	3,299
1996/97	44,919	17,001	13,807	19,258	7,868	6,797
1997/98	46,359	17,841	12,674	18,090	7,377	8,795

Note: Flow (+) = new enrollments; Flows (-) = graduates

Source: Department of Statistics

Table 2.2.4 -- Employment in Higher Education

<u>Institution</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Universities	10,231	13,034	13,059.5
<i>of which</i>			
TSU	4,317	5,659	5,687
GTU	4,363	4,869	4,869
GAU	..	1,081	1,078
Medical University	1,551	1,425	1,425
Other institutions	10,158	4,580	4,568
<i>of which</i>			
Tbilisi State Pedagogical U.	..	750	
Zoo-tech. Veterinary Institute	..	632	690
Institute of Subtropical Agriculture	..	356	320
State Inst. of Western Lang. & Cult.	..	315	283
Tskhinvali Pedagogical Institute	..	100	100
Tbilisi Inst. of Economic Relations	..	215	193
Kutaisi A. Tsereteli State University	..	601	539
Kutaisi N. Muskhelishvili Techn. U.	..	705	633
Telavi I. Gogebashvili Pedagog. Inst.	..	277	247
Scientific Research of I.G. Ped. Inst.	..	133	544
Gori Economic and Humanit. Inst.	..	385	345
Republican Center for Psychology	..	14	13
Tbilisi Student Campus	..	85	76
Sanatorium for Students	..	13	11
TOTAL	20,389	17,614	17,627

Note: "other institutions" in 1997 include GAU.

Source: IMF



Although total enrollment in higher education is fairly stable, new enrollments have been on the rise since 1993. Since then, the single largest group of higher education entrants is composed of students in the tuition-track sector of the public universities. For example, for men fee-paying enrollments in the public sector in 1997 were 132 per cent higher than in 1994. Non-fee paying enrollments rose only by 15 per cent over the same period. In the private sector, figures for new entrants dropped by 7 per cent.

The two sectors differ in terms of throughput ratios. Although comprehensive data are not available, figures for individual years suggest that the attrition rate in the private sector is lower. For example, 17,841 men enrolled in the public sector in 1997. This represents an increase of 4.9 per cent over 1996. In academic year 1997/98, 12,674 men graduated which is an 8.2 per cent decrease over the previous year. Total male student stock rose only by 1,440, or 3.2 per cent. Therefore, net male student flows are 3.6 times higher than the change in student stocks. The same calculation for the private sector yields the following result: In 1997, 7,377 men enrolled (-6.2%) and 8,795 graduated (+29.4%) making for a net negative flow of 1,418. This corresponds to a reduction in male student stock of 1,168. The fit between stock and flow figures is thus much tighter.

The most important institutions are located in Tbilisi. In the public sector, four universities (Tbilisi State University, Georgian Technical University (GTU), Georgian Agricultural University (GAU), Tbilisi State Medical University) account for three fourths of total employment in higher education. About one in three Georgian students attending the public sector is enrolled in the two largest universities, TSU and GTU. By comparison, the two largest higher education institutions outside the capital, Kutaisi State University and Kutaisi State Technical University, employ only about eight per cent of the total labour force in the sector. In 1997-9, HE employment fell. The non-university sector bore the brunt of the adjustment. By contrast, employment held up in the university sector. The fact that staff levels are maintained in the face of dramatic underfunding and diminishing student enrollments indicates alarming degrees of efficiency losses.

### **2.3 Human capital**

The public sector employs some 17,000 people (roughly two per cent of total employment in the Georgian service sector), making for a student/staff ratio of 5:1. Of these, 10,430 are teaching staff, giving a student/teacher ratio of 8:1. The private sector employs some 9,144 teaching staff, giving a student/teacher ratio of 4:1. The extremely low student/teacher ratios rise (less so in the public, and more so in the private sector) when corrected for double counting due to teaching staff having more than one teaching job. However, even after the correction they are still very low.

Table 2.3.1 -- Teaching Staff Qualifications

	Public				Private		
	<u>90/91</u>	<u>95/95</u>	<u>96/97</u>	<u>97/98</u>	<u>95/95</u>	<u>96/97</u>	<u>97/98</u>
Total	10,277	9,271	8,979	10,430	8,809	9,892	9,144
<i>of which</i>							
full-time	9,370	9,181	8,778	8,214	2,328	2,129	2,663
part-time	1,087	1,484	1,672				
combin.	907	90	201	2,216	6,431	7,763	6,481
with PhD	588	752	1,099	847	368	1,767	1,016
with master's	3882	2,443	3,594	3,406	645	3,424	2,589

Note: combin. = combined jobs

Source: Department of Statistics

The profile of teaching staff qualifications underwent considerable changes from the late Soviet period. In the public sector, in 1990/91 43.5 per cent held postgraduate qualifications. This share fell to about a third in 1995/96, rose to over one half a year later, and finally dropped back to just over 40 per cent. In the private sector, staff with postgraduate education rose from a low level in 1995/96 to more than one half in 1996/97, and dropped to just below 40 per cent in 1997/98. At a share of 8-11 per cent, relatively few teaching staff hold PhD-level qualifications. By this measure, the private sector benefits from a more highly qualified staff profile. The sharp drop in highly qualified staff from 1996/97 to 1997/98 suggests that higher education institutions face a problem of staff retention, especially in the context of a recovering economy that offers alternative employment opportunities for highly qualified people. It is not surprising that the two sectors share this problem because most of the private-sector teaching staff consist of faculty from public universities who have second jobs in the private sector.

## 2.4 Funding

Two dimensions of system management must be distinguished: first, how the government runs the system and, second, how the individual institutions run themselves. Since university governance varies from institution to institution, it will be analyzed below in the section containing the case studies. This section deals primarily with the budgetary process.

For the funding of higher education, the annual budget cycle begins with the universities drafting budget plans. In principle, they enjoy considerable autonomy in this. Thus, an institution could decide to consolidate or close departments by reallocating resources internally. The drafts are reviewed by the Ministry of Finance (for funding limits), the Ministry of Economy in conjunction with other line ministries

(for the determination of state orders), and the Ministry of Education. Interested line ministries include those of Social Welfare, Labour & Employment, Culture, Agriculture and Food, Health, as well as the State Departments of Geodesy & Cartography and for Sports, respectively. Drafts are finalized in the President's office at the State Chancellery. The Board of Rectors, an informal club of the rectors of Georgian state universities with formally only consultative status plays an important role here. According to members of the Board, currently chaired by Roin Metreveli of TSU, and of the involved ministries, it enjoys privileged access to the president and yields considerable power in terms of fending off budget cuts or tax increases. After these deliberations, the draft budget is sent to parliament for debate.

Once approved, the budget is disbursed on a quarterly basis to the universities. The budget is defined on a line-item basis from which the recipient institutions may diverge only on a short-term basis and by a small percentage. In recent years the major problem has been the government's disbursement discipline and/or capacity. Therefore, at year end actual expenditure is frequently below approved disbursements in many institutions.

Table 2.4.1 – Budget Outlays on Education, in Per Cent

<u>Expenditure/Share</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Total education (in Lari)	51,333,200.0	45,459,000.0	46,719,800.0
<i>Central Budget data</i>			
Higher education	52.3	56.9	53.2
Universities in HE	35.0	43.5	63.1
Current in total expenditure (universities)	..	84.1	97.1
Wages in total expenditure (universities)	..	39.3	49.7
Universities in HE employment	50.2	53.7	76.0
<i>IMF data</i>			
Universities in HE	..	73.0	74.5
Current in total expenditure (universities)	..	97.2	97.4
Wages in total expenditure (universities)	..	48.3	50.3
Universities in HE employment	..	74.0	74.1

Note: universities = TSU, GTU, Medical (1997), plus GAU (1998-9).

Source: Central Budget, IMF

Nominal spending on HE, as on education in general, fell in 1997-9.<sup>1</sup> However, universities were least affected. In 1999, fiscal outlays for the four large universities accounted for just under two thirds of total HE expenditure, or possibly as large as three fourths. This reflects consolidation across the many non-university institutes of higher education. It means that the universities so far did not bear the brunt of the adjustment. In fact, in the face of diminishing employment in the education sector, the universities' share in total HE employment rose in 1997-9 to over 70 per cent. Put differently, HE reform in Georgia will be successful only to the extent that it addresses the situation at the large universities, especially TSU and GTU.

The universities are autonomous in personnel decisions. In other words, funds permitting it is up to them to reduce, maintain, or increase current staffing levels. The maintenance of current staffing levels in the face of decreasing budget outlays means that universities either manage to tap private income to make up for the gap, or increase the already high share of wages in total expenditure, or delay salary payments by several months. The reluctance of higher education institutions to lay off or retire staff even in areas of drastically diminished activity suggests that changes in public funding alone are unlikely to radically alter internal resource allocation. This clearly circumscribes the government's ability to streamline an overstaffed system.

## **2.5 Student entry and progression**

Students must pass entrance examinations in order to accede to university-level courses. This practice is due to the lack of standards in secondary education -- university administrators argue that qualification levels of high-school graduates vary considerably depending on the certificate-issuing institution. Higher education institutions therefore test entry-level qualifications in all subjects. These tests are administered once a year. Candidates may sit only one set of subject-specific exams, thus giving them only a one-shot chance to enter a university programme. In other words, alternative choices are possible only in subsequent exam rounds in later years.

Examinations boards are nominated by the rector. The award of scholarships is exclusively merit-based. Obviously this has equity implications, especially since transition in Georgia has exacerbated income differentiations (cf. Shahriari 1999, 49, 51). Historical cross-country studies on social selection in educational systems in Europe have shown that general country characteristics such as the level of economic development do *not* explain why education is distributed in different ways and with different results to social classes. Instead, the variance of outcomes across countries depends on institutional, political, and other incentives and constraints (Müller and Karle 1996). Even in countries whose education systems are based on the principle of equal access, public policy often contains a net subsidy to the middle class and economically better-off families (OECD 1998, 20; cf. CERI 1998, chap.4). This means that Georgia cannot afford to believe that inequality in access to education or in educational attainment will naturally go away as the country successfully emerges from its transformation to a market economy. If it wants to achieve equality in education, it must act now.

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<sup>1</sup> Note that in 1998 conservatories etc were shifted to the culture budget. Hence, Table 2.4.1 overstates the volume of educational expenditure reduction.

Another highly problematic feature of the entrance exams is that their administration is corrupt. This is no secret; in interviews with stakeholders, only a minority of respondents professed to be unaware of this practice. To illustrate how the process works, assume that there are five student candidates: one above average, two average, and two below average. The following outcomes are possible.

1. The above-average student passes the entrance exam thanks to his or her brilliance and is awarded a scholarship.
2. One of the average students passes the exam, though not with high marks, and is offered a place as long as she is willing to pay tuition.
3. The other average student pays a bribe, is given a pass mark on the exam, and receives a scholarship or, more likely, pays tuition.
4. The below-average students pay a bribe, are given a pass mark on the exam, and receive a scholarship or, more likely, pay tuition.

This leads to the following conclusions. First, brilliant and average candidates *can* get into university without resorting to corruption. This does not mean that average students never bribe. Second, save for brilliant candidates, students end up paying for their education, either by way of bribery or by paying tuition. Third, by implication, low-income students with average or below-average performance are discriminated against. Fourth, at point of entry it is impossible to distinguish between students' performance on the basis of either their marks in the entrance exams or their status (state order or fee paying). Hence, entrance exams do not screen for quality even though that is what they are supposed to do. The four outcomes above allow a conjecture about the economic relationship between bribes, scholarships, and fees. Since a scholarship is a better deal than having to pay tuition, bribes for students in groups (3) and (4) should be higher if they receive scholarships as compared to receiving places in the fee-paying track. Therefore, the more money the candidate can afford upfront -- rather than on a regular, annual basis -- the more likely he or she is to receive a scholarship. This means that the system not only has a bias towards well-off people but rewards those who have the most cash in hand with a free ride.<sup>2</sup>

Stakeholder interviews and teaching staff as well as student surveys have produced anecdotal evidence on the sums involved. They vary by institution and by department. The largest sums are commanded by emerging departments in high demand such as law at TSU. Bribery plays little or no role in entrance examinations of natural-science subjects with generally dwindling enrollments. The range of bribes goes from less than \$100 to allegedly more than \$20,000. One possible interpretation of this phenomenon is that teaching staff accept bribes to compensate for insufficient or unpaid salaries. If that were the case, total bribes should account for some 30 per cent -- the Department of Statistics' estimate of the size of the grey economy -- of total staff salaries. But since bribery is very unevenly distributed between and within institutions, the involved sums are clearly disproportionate to real income losses that have afflicted academics in the past decade. In other words, it is unlikely that a rise in pay would do away with this problem. As long as the acceptance of bribery is

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<sup>2</sup> National admissions tests often have adverse equity implications even when their administration is not corrupt. In Israel, concern that they tend to favour the well-off recently led to the introduction of college-level courses in high schools. They are open to all interested students who, upon successful completion, may enroll in college *without* taking the traditional admission test (Watzman 2000).

tolerated by the university leaderships, this practice will not change. Also, as long as there is no administrative division between staff who accept funds and those who record and balance funds, it will remain difficult to detect.

Corruption remains a normal feature of a student's progression through the course programme. This is given further consideration in the surveys below.

## **2.6 Universities and tertiary education**

Universities are not integrated with vocational education and training (VET) institutions. Georgia has no system of tertiary education. In early secondary education, students -- or, more likely, their parents -- make choices that determine whether they enter, many years hence, a technicum or a university. Although this choice is not binding because VET graduates can obtain qualifications to enter higher education, this seems a rare occurrence.

International experience suggests that this is not optimal. Originally, the rigid separation of academic and vocational systems was based on assumptions dating from the 19th Century that industrial economies require a separation between mental and manual labour. For contemporary purposes, this is most likely an inaccurate assessment. Young people tend to be overrepresented in labour markets characterized by changing demands for skills and qualifications. For example, the service sector is typically youth-intensive, both for positive (computer or language skills) and negative (low pay unacceptable to older work force) reasons. Pathways into the service sector are drawn less clearly than those that lead to a typical blue-collar job. This is because job profiles are new; employers do not always understand the relevant qualifications; and industry dynamics are fast. They are likely to be more attractive the more they remain open for access to higher education without much loss of time when transiting from one pathway to another (CERI 1998, chap.3). As one of the case studies discussed below shows, the positioning of Georgian firms in international growth markets would benefit not just from a well-skilled but, perhaps more importantly, upwardly mobile work force. This can only be achieved through new approaches to tertiary education, including open access to HE from VET, and cross-crediting between the two tiers.

Such a system change is tremendously complicated. At a minimum it requires a dialogue between stakeholders and practitioners of the education system across the institutional divide between HE and VET. At present, such dialogue is not happening in Georgia.

**Miss Wormwood:** *You have a question, Calvin?*

**Calvin:** *Yes! What assurance do I have that this education is adequately preparing me for the 21st century? Am I getting the skills I'll need to effectively compete in a tough, global economy? I want a high-paying job when I get out of here! I want opportunity!*

### **3 Cases**

#### **3.1 Relevance: Does Georgia get the expertise it needs?**

##### **3.1.1 HE and VET in the world economy**

International competitiveness requires an education and training system that provides firms with people that have the knowledge and the skills to pursue innovative activities. This is not a new feature of globalization but has driven success stories of countries at least since the 19th Century. For example, comparative historical studies of national innovation systems have found that

“[F]or industries in which university-trained engineers and scientists were needed, this does not simply mean that the universities provide training in these fields, but also that they consciously train their students with an eye to industry needs. The contrast here between the United States and Germany on the one hand, and Britain and France on the other, is quite sharp... . Indeed these studies suggest strongly that a principal reason why the former two countries surged ahead of the latter two, around the turn of the century, in the science-based industries emerging then is that the industry systems of the former were much more responsive to the training needs of industry” (Nelson 1993, 511).

Of course, not only does the Georgian education system need to reflect the changes associated with switching from a planned to a market economy; it also needs to adapt to a world economy characterized by increasing economic integration and accelerated technological innovation. *Relevance* in HE means that graduates get better jobs and earn higher salaries, and that society at large benefits through improved productivity and economic growth, and higher tax revenues. What is true for economic catch-up in general also holds for education: marginal rates of return tend to be higher in developing countries with relatively lower levels of educational attainment (Psacharopoulos 1989). For Georgia, this implies both a challenge and the prospect of raising living standards of a severely deprived population.

Labour market outcomes are one way of measuring relevance. The demand for labour depends, among other factors, on the size and composition of final demand. The size and the characteristics -- including its educational profile -- of the population, in turn, influence the supply of labour. The following sections analyze output, employment, and training profiles. This allows a rough sketch of demand and supply in the labour market. Next, a survey of employer views on skills and of hiring practices is described. Then, the relevance of skill provision in the context of the wine industry is analyzed. Finally, the section concludes with a series of reform proposals.

### 3.1.2 Output

According to data by the Department of Statistics, in 1998 the composition of Georgian GNP in value terms was as follows: agriculture 24.9%, manufacturing 16.3%, and services 53.6%. Compared to 1997, the service sector has experienced an upswing, while manufacturing and especially agriculture decreased.

Table 3.1.2.1 -- GNP at Current Prices, in Per Cent

	<u>1997</u>	<u>1998</u>
Production of goods	44.3	41.4
<i>of which:</i>		
Industry	9.6	9.2
Agriculture	28.2	24.9
Other production	1.8	1.4
Construction	4.8	5.7
Services	51.0	53.6
<i>of which:</i>		
Transport	8.1	10.8
Communications	1.8	2.4
Trade	22.0	21.8
Other services	19.1	18.7
Taxation	4.7	4.9
TOTAL	100.0	100.0

Source: Department of Statistics

Output declines have been severe even over a short period of time across agriculture. The only significant crop production that increased 1997-8 was potatoes, citrus fruits, tea, milk, and eggs. Declines of less than 20% characterized vegetables, fruit, grapes, and meat. Production of all other crops decreased by up to one half of 1997 output.

There was little structural change within manufacturing; construction was the only growth sector. For services, relative increases were strongest for transport and communications. Although the data must be used with caution, developments over the last two years appear to reflect longer term trends: in the early nineties, agriculture accounted for more than half of national output, and dropped to just a fourth since. Industry's share fell rapidly from the early to the mid-1990s but then remained stable at around 9%. The share of services roughly doubled which means that the most pronounced structural change was from agriculture into services. The rapidity of this movement over less than a decade suggests dramatic adaptability problems of skill provision, labour market management, and education system design which dwarf the



challenges experienced by agricultural economies on the European periphery such as Ireland, Greece, or Portugal over the 1970s and 1980s.

Table 3.1.2.2 -- Agricultural Production, Thousand Tons

<u>Product</u>	<u>1997</u>	<u>1998</u>	<u>1998/1997 (%)</u>
Grain and leguminous crops	901.9	604	67.0
Wheat	291.8	195	56.5
Corn	546.3	402.0	73.6
Leguminous cultures	10.2	7.0	68.6
Sunflowers	31.5	15.0	47.6
Beans	1.9	2.0	105.3
Tobacco	.2	1.1	550.0
Potato	353.0	388.0	109.9
Vegetables	540.9	375.0	69.3
Fruits	299.4	250.0	83.5
Grapes	309.1	260.0	84.1
Citrus	57.1	70.0	122.6
Tea	33.2	48.0	144.9
Meat	120.0	105.0	87.5
Milk	600.0	640.0	106.6
Eggs (million)	370.0	380.0	102.7
Wool	1.7	1.7	100.0
Net agricultural product (lari million)	2,299.0	2,118.0	92

Source: Department of Statistics

Table 3.1.2.3 -- Composition of GNP, in Per Cent

<u>Sector</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Agriculture	54.5	66.2	64.5	41.8	31.0	28.2	24.9
Industry	12.7	8.0	8.2	9.5	10.3	9.6	9.2
Construction	6.7	.8	1.7	2.2	4.6	4.8	5.7
Transp.&comm.	4.1	3.6	5.1	8.5	6.3	9.9	13.2
Trade&food ind.	1.7	6.8	8.3	26.1	22.2	11.3	11.1
Other	20.3	14.6	12.2	11.9	25.6	36.2	35.9

Source: Department of Statistics

Table 3.1.2.4 -- Manufacturing Products in Current Prices, Thousand Lari

Product	1997	1998
Crops for fruit, nuts, spices, seasoning, and beverage production	217.4	411.5
Poultry	0.7	246.8
Forestry and wood products	1,317.1	1,602.3
Meat canning	161.5	413.2
Dairy products	4,638.1	6,278.0
Pasta	220.7	565.5
Wine	20,518.8	23,383.0
Wool fabrics	70.3	153.9
Shoes	626.7	989.6
Timber and related	1,668.0	2,752.4
Cellulose and paper	9,696.7	13,109.6
Publishing	8,665.4	11,653.0
Industrial gas	294.5	656.4
Pharmaceutics	3,339.8	3,586.1
Plastics	6,133.7	6,864.8
Cement	5,709.3	12,275.6
Lime	1.5	400.3
Radiators and boilers	2.7	14.7
Engines and turbines	1,654.3	2,619.8
Tractors	282.4	435.2
Pipes and cables	469.3	767.2
Surgery equipment	59.8	470.5
Automobiles	4,202.9	5,376.2
Rolling stock	6,344.6	17,629.8
Furniture	2,272.4	2,500.2

Source: Department of Statistics

In order to understand the relevance of these changes for the VET and HE education system, it is necessary to differentiate within sectors. For example, exceptions to the general decline exist in agriculture: in 1997-8, the value of agricultural output increased, very significantly in some cases, in certain crops, in poultry, and forestry and wood processing. Similarly, in manufacturing the value of output increased, *inter alia*, in areas as diverse as food processing, textiles, leather goods, timber and wood products, paper products and publishing, chemicals, pharmaceuticals, plastics, construction materials, metal products, engines and turbines, agricultural machinery, electrical equipment, medical appliances, vehicles, railway and rolling stock, and furniture. Although volume and value data are not entirely comparable, there are some indications of quality increases; indeed, unit values rise, for example, in parts of the food industry (processed meat, dairy products, pasta, wine), and in textiles (cotton and wool fabrics). This means that both declining

(agriculture and manufacturing) and growing (services) sectors generate demand for skills.

### 3.1.3 Employment

According to data from the Department of Statistics, the average unemployment rate for people over 25 years old is 10.8%. This figure includes unregistered unemployed. The Department of Statistics uses a definition of unemployment suggested by the ILO. According to this definition, a “person who during the seven days before the poll worked (for at least one hour) with the view to gaining income (salary, payment in kind, profit, etc.), helped the other members of the household free of charge or, for certain reasons did not work although formally employed”, is considered employed. How well this definition of employment captures the labour market situation in Georgia is arguable. When the team presented these figures in the employer workshop, they were met with ridicule and considered totally useless. Also, people owning a piece of land are registered as self-employed although their primary source of income may be derived from irregular helper jobs because farm-related revenues are below subsistence level.<sup>3</sup>

Thus, the following illustrations must be read with this caveat in mind. They are based on published statistics which seem to reflect the reality of the labour market only to a limited extent. The spatial distribution of unemployment varies significantly. It is generally higher in towns (21.0%) – highest in Tbilisi (27.3%) – and practically non-existent in rural areas (1.5%). The age group hardest hit by unemployment is the young (15-25 years), with a rate twice the national average (22.9%). With increasing age, the unemployment rate falls: 25-40 years: 17.4%; 40-55 years: 10.4%; 55-65 years: 6.6%; over 65 years: 1.1%. This pattern spatially holds across towns and villages.

Table 3.1.3.1 -- Age Distribution of Unemployment, 1998, in Per Cent

	<u>&gt;25</u>	<u>15-25</u>	<u>25-40</u>	<u>40-55</u>	<u>55-65</u>	<u>&gt;65</u>
Tbilisi	27.3	48.2	32.8	24.6	24.6	7.0
Towns	21.0	40.1	28.1	18.1	15.5	5.2
Villages	1.5	6.9	3.7	1.4	.3	.1
Average	10.8	22.9	17.4	10.4	6.6	1.1

Source: Department of Statistics

It contrasts sharply with the West European experience where both the young and the old account for the bulk of the unemployed. The older unemployed typically have trouble re-entering the labour market because they do not manage to update their skills. A low incidence of unemployment among this age group in Georgia does not suggest that it is better equipped than elsewhere to adjust to structural change but rather that the insufficient pension system does not allow the older generation to

<sup>3</sup> Reportedly survey work exists which shows that 95 per cent of the people registered as self-employed identify themselves as unemployed.

retire. More dramatically, it also raises the possibility of what one might call “captive jobs”, where elder insiders manage to keep out new entrants to the labour market. If this is true then delayed structural change effectively introduces a bias against the young in Georgian society.

In general, the data do not suggest that labour markets discriminate against women. Indeed, unemployment among women is slightly lower than for men (exception: Adjara, Guria).

Table 3.1.3.2 -- Employment Structure, 1998, in Per Cent

	<u>&gt;25</u>		<u>15-25</u>		<u>25-40</u>		<u>40-55</u>		<u>55-65</u>		<u>&gt;65</u>	
	<u>(1)</u>	<u>(2)</u>	<u>(1)</u>	<u>(2)</u>	<u>(1)</u>	<u>(2)</u>	<u>(1)</u>	<u>(2)</u>	<u>(1)</u>	<u>(2)</u>	<u>(1)</u>	<u>(2)</u>
Tbilisi	85	14	92	8	85	14	85	15	86	14	89	11
Towns	73	26	71	27	75	24	77	23	71	28	52	47
Villages	20	80	12	87	29	71	26	74	14	86	5	95
Average	42	57	75	65	51	48	51	49	35	64	14	85

Note: (1) = employed; (2) = self-employed

Source: Department of Statistics

In Georgia, the labour force is almost evenly divided between towns and villages. 57% of the working population is self-employed. This reflects a high incidence of self-employment in rural areas (80%). Self-employment is lowest in Tbilisi (14%).<sup>4</sup> Again, there are significant differences across age groups. Self-employment is higher than the average among the very young (15-25 years), the pre-retirement group (55-65 years), and especially among the oldest (above 65 years). In all three cases this reflects above-average self-employment in rural areas where the dissolution of collective farming and the privatization of land introduced widespread small-scale farming. However, self-employment is lowest – and below-average – among the very young in Tbilisi (8%). This is potentially problematic. Some of the high-growth service sectors are characterized by a high incidence of self-employment. They also tend to be concentrated in Tbilisi. Hence, with self-employment low among the young, this hinders labour market access to one of the few dynamic sectors of the economy. It is important to understand whether this is due to labour market inefficiencies or to the kinds of skills the education system provides young people with.

Panel data indicate that the highest-income households are prevalently HE graduates (32.3%), secondary school graduates (29.2%), HE dropouts (20.5), and VET graduates (13.4). The incidence of poverty is highest among the least educated (49.5%) and lowest among HE graduates (33.3%). In addition, the low-educated poor are more likely to have levels of income below the minimum wage than the poor highly-educated. Finally, income differentiation affects the former group more than the latter. All of this information points to the existence of a premium on education

<sup>4</sup> However, this figure does not include internally displaced persons (IDPs) and street vendors who are registered in Western Georgia.

for the determination of income.<sup>5</sup> In this respect, Georgia is no different from most other parts of the world.

Table 3.1.3.3 -- Education and Income, 1998, in Per Cent

<u>Education</u>	<u>High-income</u>	<u>Income to minimum wage</u>		
		<u>Incidence</u>	<u>Depth</u>	<u>Acuteness</u>
Primary or less	1.0	49.5	20.0	..
Incomplete secondary	3.7	51.6	20.5	10.8
Secondary	29.2	45.7	16.3	8.2
Special education	13.4	44.4	16.5	8.2
Incomplete HE	20.5	..	..	..
HE	32.3	33.3	10.7	5.1
Undefined	.0	45.5	12.5	5.1
TOTAL (Average)	100.0	(43.7)	(15.9)	(8.0)

Note: "Incidence" shows the share of levels of educational attainment among low-income households. "Depth" shows the relative distance of levels of educational attainment from the minimum-wage. "Acuteness" shows the degree of income differentiation within groups of educational attainment.

Source: Department of Statistics

The employment of highest-income households is higher in services (68.0%) and lower in agriculture (12.6%) than the respective shares of these sectors in national output. Hence, highest-income (and highly-educated) households anticipate structural change in the expanding and declining sectors. Their share in manufacturing is higher than the share of industry in GNP which probably reflects the high incidence of engineers in the mining and metal processing industries.

Highest-income households of HE extraction tend to be less active in agriculture, forestry, and fishing; in trade and consumer good repair; and in transport and communication; in turn, they are above-average active in government, education, health protection, and culture. Those of VET extraction tend to be less active in agriculture, forestry, and fishing; in mining and processing; in education; and in culture; by contrast, they are above average active in trade, transport and communication, and health protection. This means that the two tiers of tertiary education do not overlap in their relative specializations, except in health protection. For example, highest-income household employment of VET background concentrates in the high-growth sector transport and communications while that with a HE background concentrates in government and education. None of the two tiers concentrates on agriculture. Given the weight of agriculture in national income and

<sup>5</sup> This interpretation is in contrast to Orivel's finding (1998, 4). He argues that the correlation between levels of educational attainment and remuneration is negative. The difference is most likely due to richer data to which our team had access.

the dire need for productivity increases in the sector, this is not a good sign. Although the importance of agriculture is in secular decline, food and farm products are potential export revenue earners, thus contributing to the costs of modernizing domestic industry through imports of capital equipment. However, this is a promising avenue only insofar as Georgia manages to avoid lock-in in cheap products and emphasizes worker productivity and product quality. That, in turn, is likely to require HE inputs. For example, Georgian tea recently has been exported successfully to Russia and Ukraine. But this is primarily due to the financial crisis in those countries which makes qualitatively better tea from India too expensive (Horn 1999).

Table 3.1.3.4 -- Employment of High-Income Households, 1998

Sector	Percentage
Trade, consumer goods repair	20.2
Agriculture, forestry, fishing	12.6
Transport and communications	11.2
Education	11.6
Mining and processing	10.7
Government	8.5
Culture	7.3
Health services	6.0
Construction	4.8
Utilities	3.2

Source: Department of Statistics

### 3.1.4 Training profiles

The Department of Statistics collects partial data on the sectoral groupings of student enrollments. In VET, student enrollments in subjects related to industry and construction dropped by 91% in 1990/1-1997/8, and by 88% in agricultural subjects. By contrast, in 1995/6-1997/8 enrollments increased in transport and communication (202%), economics and law (94%), health protection (12%), and pedagogical subjects (126%).<sup>6</sup> In 1990/1-1997/8, enrollments in HE decreased in industry and construction (- 52%), agriculture (- 13%), and health protection (- 46%). The relatively minor reduction in enrollments in agriculture-related subjects suggests that there has not been an adequate system response to the radical shrinking of agricultural production in national output over the 1990s. In 1995/6-1997/8, enrollments increased in transport and communication (10%), economics and law (69%), and pedagogical subjects (11%). Changes in enrollment of women over the same periods are more drastic, both in declining and in dynamic sectors: industry and construction (- 60%), agriculture (- 22%), transport and communication (+ 133%), and economics (+120%).

<sup>6</sup> It is not clear to what extent the increase in growth subjects is *caused* by the decline in traditional subjects. Namely, given the consolidation in VET it could be that students resigned to studying in the VET tract opted for the growth subjects for (perceived) lack of an alternative.

Thus, the enrollment patterns of women have adapted either earlier or more thoroughly to structural changes in the economy.

Table 3.1.4.1 -- Student Enrollment in State Schools by Industry

Sector	VET				HE			
	90/91	95/96	96/97	97/98	90/91	95/96	96/97	97/98
Ind. & construction	16,971	8,544	8,030	1,546	35,182	19,884	18,272	16,898
Transp. & comm.	2,722	749	674	2,265	..	1,301	1,485	1,437
Agriculture	7,777	4,289	2,702	934	12,579	9,600	9,679	10,923
Economics and law	6,355	3,950	5,290	7,659	2,449	2,815	4,274	4,764
Health services					6,331	3,447	3,019	3,408
Sports	3,972	4,993	5,288	5,608	2,046	1,466	1,448	1,555
Education	1,836	1,876	2,665	9,189	42,048	40,696	45,424	45,206
Art & cinematography	3,230	2,506	2,354	2,804	3,258	2,870	2,905	2,860
Religion	..	..	..	..	...	151	...	207
TOTAL	42,863	26,907	27,003	30,005	103,893	82,230	86,506	87,258

Note: In VET, "sports" includes health services.

Source: Department of Statistics

Differences exist between the state sector and the public sector. For example, in 1995/6-1997/8 enrollment in private HE institutions increased in industry and construction (20%) and agriculture (21%) as well as in health protection (39%). In principle it is possible that these institutions have managed to occupy niches left uncovered by the state institutions. It may also be that they merely replicate state institutions that have been reduced or shut down. The data do not allow to answer this question although the findings of the employer survey appear to suggest that the latter is the case, at least for those institutions active in training related to industry and agriculture. Hence, the medium-term viability of these institutions is in doubt. By contrast, in health protection a growing student population clearly opted to move from the state to the private system.

Table 3.1.4.2 -- Student Enrollment in Private HE Institutions by Industry

Sector	95/96	96/97	97/98
Industry and construction	2,942	1,710	3,538
Transport and communication	145	..	..
Agriculture	1,866	2,548	2,256
Economics and law	10,324	10,261	10,334
Health services	3,967	5,942	5,531
Sports	..	..	..
Education	22,514	22,028	17,416
Art and cinematography	248	400	1,087

Source: Department of Statistics

Overall, changes in the VET system have been more drastic than in HE. In fact, while the total student numbers in VET have been reduced by 30% in 1990/1-1997/8, the HE shedding rate is only half as high (-16%).

### 3.1.5 Summary

The statistical data on sectoral output, unemployment, and enrollment trends show the following:

- Over the past decade, the Georgian economy has experienced a drastic structural change from industry and agriculture into services. Despite the reduction of the share of agricultural production in national output, farming and farming-related activities still account for roughly 25% of GDP. This is much higher than OECD averages and puts Georgia on a par with transition economies like Poland or Romania.
- In all three sectors, there are declining as well as dynamic activities. These intra-sectoral differences must be borne in mind when adapting the education system to the demands of the emerging Georgian economy.
- Official unemployment is practically non-existent in rural areas and affects only towns, especially Tbilisi. It is doubtful, however, that published statistics fully capture labour market realities. Young people are disproportionately afflicted. Taken together, these trends mean that 15-25 year olds in Tbilisi are the group hardest hit by adverse labour market conditions and/or skill mismatches.
- Enrollment trends in VET and HE indicate that structural changes in the economy are reflected in tertiary education. This is due to policy-induced changes (the mandated reduction of VET institutions), institutional reform (the introduction of new disciplines or the modification of old programmes in HE), and student choice.
- What the statistical data cannot answer is what the reason is for the high rate of unemployment among young people. In principle, this can be due either to wrong or inadequate skills – namely, young people do not have the requisites to cope with the requirements of the dynamic sectors, especially in services – or to labour market inefficiencies whereby sufficiently and well-trained young job seekers are effectively barred from competing for employment or from becoming young entrepreneurs. In order to answer this question we designed the employer survey.

### 3.1.6 Employer survey

The survey asked questions about ownership, size, and major markets of respondent firms (see appendix). It described staff requirements in terms of hirings and firings over the recent past, current vacancies, and future job openings. Managers were asked to specify their expectations regarding knowledge, skills, and attitudes of their employees; to what extent the education system imbued candidates with these characteristics; and whether in-house training was preferable to state-provided education.



### 3.1.6.1 Sample

The survey was directed at some 60 firms, roughly half of which were at least partially foreign-owned. Returns are available from 50 respondents, about evenly divided between manufacturing and service firms.

### 3.1.6.2 Results

Firms with at least partial foreign ownership:

- Managers are generally dissatisfied with the education system. Managers regard the level of basic general education as sufficient. (The younger generation is an exception, for example insofar it no longer speaks Russian. Some firms therefore do not hire people under 25 years.) But they complain that the public education system does not provide sufficient or adequate training in special skills that they require. Certain service areas such as financial intermediation are left completely uncovered by existing course programmes. Hence, positions are filled with people whose skill profile approximates the job description. For example, mathematicians or natural scientists become accountants. In some cases on-the-job-training then substitutes for missing qualifications at entry level. On occasion job training within internationally-active companies is organized abroad.
- Formal degrees are less important than tangible, technical qualifications. Employees are hired because of their knowledge of English (or other foreign languages) or of information technology. An exception are positions where local law prescribes specific qualifications, as in civil engineering. The excess supply of highly-educated job seekers lands many of them in low-skill jobs for which they often seem to compete with low-skill job seekers.
- Next to the skill deficit, managers complain of an attitude problem. Flexibility and independence are qualities in short supply, especially in service and sales. Other qualities much in demand are diligence, the ability to work in teams, honesty, and a “market-economy” frame of mind.
- Personnel management is not based on a rational assessment of skills needed relative to those on offer but relies on intangible qualities such as loyalty, recommendations etc. Personal interviews substitute the evaluation of CVs and other comparable screening practices.

Firms with predominantly local ownership:

- State institutions are not highly regarded. Apart from ESM, no HE or VET institution enjoys unambiguous appreciation in the business community. VET schools are virtually unknown. However, graduates from specific university departments are praised: for example, TSU lawyers, and GTU communication engineers.

- Secondary schools do not provide a sound basic education. One illustration of this complaint is the vanishing knowledge of Russian among younger people. This is presumably relevant primarily for firms with export markets in the NIS.
- There is a lack of able managers. This gap cannot be filled by recent graduates but by people with 5-7 years of job experience who are then retrained at a postgraduate level or in executive-type format.

In order to address the skill gap, some firms indicated their willingness to sponsor government-run training schemes in their fields of activity provided that these schemes meet international standards; be accredited by non-Georgian experts; and be carried out at the VET rather than HE level.

### 3.1.6.3 Conclusion

The survey shows the dissatisfaction of the business community with the education system. In fact, according to IMF data, international corporate interest in Georgia, measured as per-capita FDI inflows 1994-8, was three times lower than the average of all CIS transition economies. However, next to insights concerning skill gaps and skill mismatches, the survey also throws light on hiring practices that defy rational personnel management. For example, quite a number of respondents, while unhappy with the skill profiles they receive, appear to be unable to define and articulate what kind of skill profile their firm needs. Also, they often do not seem to have a proper personnel policy with an associated apparatus in place. This is reinforced by “hire-thy-neighbour” policies and suggests that the labour market in Georgia is not truly competitive.<sup>7</sup> Instead, there are internal markets (not in the sense of being internal to an organization but internal to who-knows-whom and who-owes-whom).

Therefore, it may well be the case that unsatisfactory performance on the job is due not to whatever level and type of educational attainment but instead to bad hiring decisions. In addition, it is paradoxical that foreign companies tend to regard the general education level as basically sound while domestic managers complain about its degeneration. It is also not clear how realistic managers are about job seekers undertaking tasks without any on-the-job-training. Again, the problem possibly lies not with the education system but with managers who fail to understand that no education system anywhere in the world turns out people who can operate without a minimum level of in-house mentoring. In other words, managers still may be prone to be nostalgic about the era of planning when a narrow educational specialization guaranteed lifetime employment in a narrowly circumscribed field of activity. In an increasingly open and service-dominated economy, jobs of this kind are less and less available. Hence, a model in which the education system provides the basis upon which employers can graft job-specific knowledge and skills is more realistic than what some of the interviewees appear to have in mind.

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<sup>7</sup> A recent Financial Times survey of Georgia suggested that “[t]he concepts of pride, honour and dignity are more powerful in Georgian business culture than capitalist concepts such as profits” (Ostrovsky 1999).

Of course, a good skill base is more likely to attract FDI and technology transfer. In turn, foreign businesses can enhance domestic human capital, giving rise to a virtuous cycle. By contrast, an inappropriate skill base would ultimately likely reduce returns to education and, as the OECD's Development Center has shown for a number of LDCs, raise inequality. Hence, HE is about more than helping people get a job – it is about creating benefits to all of society.

#### 3.1.6.4 Workshop

The results of the survey were presented to a group of managers organized in the International Chamber of Commerce. The consultation focused on what kind of skill provision can be made flexibly and lastingly valuable in the private sector through what kind of (re)training mechanism. The most important outcomes of this discussion are the following.

1. Demand for skills exists primarily in the areas of competent craftsmanship and customer-oriented as well as business services. These skills are not generally available and are certainly not produced by the education system. With reforms, they are more likely to be produced by VET than in HE. However, there is also a lack of qualified managers that combine professional expertise with life experience (i.e. not too young). The qualitative fit between the educational profile of HE graduates and the needs of Georgian firms is poor.
2. There is agreement with the government on where the competitive advantages of Georgian industry lie: mineral water, wine, and tourism.
3. There is general skepticism regarding the reliability and relevance of statistics produced by the government.
4. Some Georgian managers harbour a deep mistrust of the service sector. To them, an expansion of service sector activity equals becoming a “servant” to the world. In other words, only manufacturing is considered a prestigious economic activity.
5. Individual entrepreneurs indicated their willingness to participate in and co-fund private/public partnerships devoted to youth training.

The forum with the employers thus confirmed and amplified our interpretation of the survey results. Georgia suffers from a mismatch between skills people have and those that are required to do the job. The mismatch results from a combination of too little, too much, or the wrong kind of schooling. It also results from the functioning of the labour market itself. This latter finding suggests that educational reform is just one of the many measures needed to endow Georgia's work force with the skills it needs to prosper and that Georgian firms need to compete successfully at home and, especially, abroad. A wholesale overhaul of the system of skill provision is impossible in the short run. But pilot projects can help identify strategic directions for the entire sector. This is illustrated in the next section.

### 3.1.7 Demand for and supply of skills in the wine industry

The Kakheti region is the centre of Georgian wine production. With the exception of two districts (Dedoplistskaro and Lagodekhi), there is at least one wine producer in every village or town. During the Soviet period, a typical medium-sized factory employed some 120-150 people. Of these, 70 per cent were unskilled. The rest was divided between administration and wine production proper. Skilled workers included laboratory staff, supervisors, and people responsible for sampling. They normally held a degree of senior or junior wine technologist from GAU. Other skilled workers were trained at the Telavi Vocational School of Agriculture. In addition, each plant hosted 30-35 interns from the vocational school and 3-5 from GAU. This system no longer exists. The differentiation of output was simple. Each grape type came in just two qualities: ordinary and premium. To this day, close to 100 per cent of the employees are from the Kakheti region.

The situation of the industry changed from the mid-1990s thanks to privatization and the arrival of foreign investors. A half dozen joint ventures now export Georgian wine not only to Russia but to western markets as well. The following description of demand for skills is based on interviews with managers of four domestic (Tsinandali, Eniseli, Mukuzani, Okami) and three partially foreign-owned (Shilda, French-Georgian; Sagaredjo, US-Georgian; Kvareli, Dutch-Georgian) producers.

On the one hand, the domestic firms generally express satisfaction with the skills and qualifications of their employees, especially with GAU graduates. They only complain about a lack of people trained in marketing, distribution, and trade. Joint ventures, on the other hand, note the lack of qualified personnel trained to western standards and methods of wine production. For example, they send wine samples abroad for testing. The foreign-owned firms do not employ locally-trained enologists because “they often make conclusions that are not accepted by the partners” (interview protocol). Thus, the majority French-owned joint venture has hired an Australian winemaker as its director of enology and viticulture (Jack 1999). Their partners abroad also take care of marketing and distribution.

The different evaluations of local skill provision are due to the higher quality demands foreign firms make. For example, they require that each type of grape (Mtsvane, Rkatseli, Manavi, etc.) be treated with a different technique which neither GAU nor VET graduates can handle. Foreign firms employ equipment and technology that local personnel have never come across during their training and that consequently they are unable to use. Foreign managers confirm that they would hire staff for both wine production and marketing and distribution if skilled personnel were available. They estimate that, with appropriate qualifications, the Kakheti wine sector could absorb 500-550 wine technologists and 1,800 skilled workers.

The main campus of GAU and its branch in Telavi supply HE qualifications for the sector. Wine technology is part of the Department of Food and Wine Technologies. The department awards bachelor’s (junior technologist) and master’s degrees (senior technologist). According to the dean of the department, the university suffers most from totally outdated equipment. Nonetheless, he believes that GAU

produces competent graduates whose qualifications fully meet the needs of the wine industry. This large gap between the perspectives of producers and users of educational output is due at least in part to the absence of communication. GAU and the wine producers do not interact, and the department does not keep track of where its graduates work and, hence, does not know the problems they face in trying to make use of their skills. Although the dean confirmed the importance of marketing and distribution which are part of the department's curriculum, its teaching staff is recruited mainly from among lecturers who used to teach Marxist economics. Textbooks in use are outdated and often not available anyway.

In 1995 the Ministry of Education established GAU's Telavi branch on the premises of the former Institute of Agriculture. The branch replicates all of GAU's departments. Currently 45 students are enrolled in the wine technology programme. The majority pays tuition. The branch has no laboratories or other equipment for wine production. It also has no library. There is no resident faculty; teaching staff commute from Tbilisi. Lectures are held irregularly because teaching staff frequently fail to show up for class. As in Tbilisi, the rector and the dean believe that the institution turns out highly qualified professionals. They do *not* regard it as their responsibility to organize internships for students. They also do not think that marketing and distribution are subjects of importance for the wine sector and instead should remain the domain of economists.

Unfortunately, due to lack of cooperation from the branch, it was impossible to interview students or teaching staff. What became clear nonetheless was that GAU's problems in providing skills in demand on the labour market are multiplied at its branch. In fact, the educational purpose of the branch is a mystery.

At VET level, the Telavi Vocational School of Agriculture trains drivers, tractor drivers, and mechanics. Its graduates work in the wine industry as well as other local industries.

It is clear – though not necessarily recognized by educators -- that demand and supply of skills in the wine industry will come to match only once the curriculum of HE and VET institutions reflects changes in product quality and distribution. It is unlikely that the education institutions have the capability to institute these changes by themselves. Inspiration for change could result from university-business partnerships. Wine producers have better technological equipment than the universities. A stage in such firms would help students keep abreast of innovations in which their departments do not have the means to instruct them. The advantage for firms would be that they are more likely to find suitably qualified graduates who can substitute expatriate staff or allow for sampling to be relocated to Georgia. Both measures would be cost-saving. GAU also needs to review its curriculum in marketing, distribution etc. Means for this could be freed by closing the Telavi branch. Alternatively, in the long run the two existing departments of wine technology could be consolidated in Telavi from where GAU recruits the majority of its students in this subject.

Finally, consideration should be given to the integration of VET and HE. As the quality of Georgian wine production improves, the demand for skilled workers

will rise. This means that, as senior technologists become resident enologists, and as junior technologists advance to senior positions, VET graduates should have the opportunity to upgrade their skills by entering HE. This, while not impossible, currently rarely happens. But without such a change the wine industry is unlikely to get an upwardly mobile work force whose qualifications dynamically reflect more sophisticated industry demands.

### 3.1.8 Recommendations for reform

It is not easy to understand the exact nature of the mismatch between skills provided and those in demand. Tracer studies of graduates are one way of studying this more in depth. Resources permitting, a more ambitious and comprehensive attempt at measuring economic outcomes associated with education would be to develop economic indicators of the Georgian education system (Rumberger 1994, 279-82). They should focus on recent graduates and school leavers because they represent the generation that is key for making transition of the economy a success in the medium to long run. A basic list of indicators might look as follows:

1. Educational qualifications of the population  
What are the amount and type of credentials, knowledge, skills, and other characteristics young people bring into the labour market?
2. Employment status of the population  
What proportion of school leavers have difficulty in securing employment?
3. Characteristics of firms and jobs  
What types of qualifications do firms demand?
4. Mismatch between job seekers and jobs  
How well do indicators (1) and (3) overlap?
5. Formal and informal training opportunities  
Do young people acquire useful knowledge and skills *after* leaving formal education?
6. Workplace attitude and behaviour  
What is the degree of job satisfaction, motivation, effort, absenteeism, turnover?

The Department of Statistics already collects some of these data. Others could be assembled by modifying the household survey. Alternatively, a pilot study could be undertaken for a specific sector. The rich insights such a study can produce are illustrated by the findings of skill provision and demand in the wine sector.

**Miss Wormwood:** *In that case, Young Man, I suggest you start working harder. What you get out of school depends on what you put into it.*

**Calvin:** *Oh.*

## 3.2 Quality: Is the system geared to high-quality output?

### 3.2.1 Lessons from international experiences

Many countries are undertaking reviews of their HE systems. Questions frequently asked revolve around quality appraisal: How good is the delivery of education? How valuable are the educational experiences of the students? The more aggressive

reformers have developed systems of quality assurance which cover reviews of curricula, teaching and assessment procedures, research output, and the like. Quality means more than one thing in these exercises; it depends on whether the area under review is a degree programme, financial management, or something else. All quality assurance programmes share the ends-means-result analysis: What are aims and objectives, how are they being implemented, and with what outcome? Thanks to outside pressure toward greater accountability and transparency, institutionalized quality assurance has become a more familiar feature of HE management in OECD countries. But partly due to the considerable energies required by quality assurance mechanisms, the systems currently in place are neither complete nor perfect (cf. Baker 1995; Gibson 1995; Kallen 1996). In this sense, Georgia is in good company. It also shares with the more advanced economies the challenge to improve the quality of HE without adding new resources (cf. Bottani and Tuijnman 1994).

The absence of a single, successful model of HE reform and management (cf. Linder 1999) suggests that it makes no sense to adopt any one or several of the advanced countries' HE systems wholesale. But increasing awareness of HE reform worldwide means that it does make sense for Georgian policymakers to study international experiences in institutional evaluation and reform management. Transition economies have an especially severe human resource problem, and a reform of the education system is a key strategic tool to overcoming it. Awareness of this insight is made explicit in a programmatic document on university reform produced at TSU (A Conception of University Education n.d.).

In quality assurance, particular attention is given to the curriculum. The curriculum provides the core for teaching and learning. Key questions are who controls the curriculum; how it interacts with academic research and the advance of knowledge more generally; what kinds of contents it has; in what form and with what methods it is being delivered, and so forth (OECD 1998, chap. 5). In Georgia, a quality assurance system is not in place either at the national level or at individual institutions of higher learning. In order to assess quality, the team resorted to surveys of students and teaching staff at TSU, GTU, GAU, and the European School of Management (ESM). The findings from these surveys are presented next. In the following section, an example of institution design and curriculum reform is analyzed. The final section concludes with recommendations for reform.

### 3.2.2 Coverage

TSU and GTU are the two largest HE institutions in terms of employment, enrollment, and share in the state budget. GAU is the fourth largest, after Tbilisi State Medical University. Their combined staff account roughly for two thirds of all HE employment and government HE spending; their student enrollment for a third of total state sector enrollment. ESM, by contrast, is a small institution which awards only business-related degrees. It was included because it is perhaps Georgia's most prestigious private HE institution. It cooperates with European business schools such as the London Business School and is thus also internationally acknowledged. It helps decide whether there are quality differences between state universities and the high end of the private sector. Our surveys cover more than 800 students and more than

450 faculty which represents about three and ten per cent of the total population in the four institutions, respectively.

### 3.2.3 Experiences and views of students

#### 3.2.3.1 Survey design

The survey aimed at obtaining detailed information from students in tertiary education about their motivation for choosing a certain course; their experience with the course programme; their job search strategies; and on how their studies are financed. The original questionnaire is enclosed in this section (see bullet points under headings in italics). Care was taken to guarantee that the sample be representative in terms of gender, discipline, and year of study. For the time being, the statistical assessment is primarily descriptive (see Table 3.2.3.1.1 in the appendix). However, both the student and the teaching staff data bases would allow inferential tests. It is augmented and illustrated by qualitative reports based on semi-structured interviews.

#### 3.2.3.2 Results

##### *Personal and Enrolment Info*

- Age:
- Gender:
- Place of birth:
- Institution:
- Field of study:
- Year of study:
- Is this your first degree in tertiary education?
  - If no, what was your first degree?
- Did you initially enroll in this programme or did you transfer from a different programme?
  - If yes, from which programme, and why?
- Did you ever study abroad?

The average age of respondents is 19-21 years. The average year of study lies between 2.3 and 3.1, with the main undergraduate and graduate programmes lasting between 4 and 6 years. For more than 9 respondents out of 10, their current enrollment is their first degree programme. The transfer rate lies between 2.7% and 11.6%. This reflects intra- as well as inter-institutional transfers. The main reason for transfers is dissatisfaction with the course programme. This is especially the case for the ESM respondents who all transferred out of the public into the private sector without necessarily changing their subject. There is wide divergence concerning study periods abroad. The figure is lowest for GAU (0%) and highest for ESM (27.8%). This appears to reflect the elite status accorded to ESM which probably recruits above-average talented students from upper middle-class backgrounds. The ratio is also higher at TSU and GTU. Possible explanations for the divergence include geographical origin (with a larger share of rural population at GAU) as well as the more prestigious reputation of TSU relative to the two other state institutions.



## *Motivation*

- Why did you decide to enroll in your subject?  
(Prompt for: interest in subject, parents' influence, teachers' influence, job market expectations, requirement for further study, other. Try to rank this on an ordinary scale, e.g. 1 > 2 > 3 > 4 > 5 > 6.)
- Do you feel different about this decision now compared to when you enrolled?  
(Prompt for: structural change in economy, changes in society.)
- If yes, are you planning to change your subject?
  - If yes, what is your new subject, and why?
  - If no, why not?  
(Prompt for: transfer difficulties, economic difficulties, lack of information about opportunities.)

At both GAU and GTU, “other” is the most important factor in determining students' enrollment choices. “Other” comprises an eclectic list of motivations mostly unrelated to higher education as such. Most prominent among them is, for men, the avoidance of military draft, and for everyone, the social status accorded to university degrees regardless of whether or not they help graduates obtain a job in their profession. This appears to be one of the most problematic heritages of the Soviet system. “Interest in subject” fares highly across the four institutions which suggests that intellectual curiosity and the willingness to learn characterize the majority of students. However, “job market expectations” fare more poorly, especially at GTU whose tradition in turning out engineers for industry sits uncomfortably with the structural changes in the economy. In terms of role models, teachers are clearly less influential than parents in determining what high school graduates decide to study. Qualitative evidence from the survey suggests that, more than someone's vocation, it is their parents' best guess as to where they can provide their children with a job that has a decisive weight on enrollment choices. Finally, although social mores put a premium on university education, this does not mean that Georgia is an academic society *ad infinitum*; “requirement for further study” is indeed among the least influential factors.

11.1-35.5% of respondents report that they feel different about their enrollment decision at the time of interviewing. The ratio is lowest at ESM which suggests that there is a good match between the course programmes and student expectations. In fact, ESM students mostly refer to *increased* interest when discussing a change in their motivation. By contrast, the ratio is highest at GTU where respondents cite disappointment with the courses as the main reason for a change in motivation. 5.5-22.5% of respondents have plans to change their subject. This includes broadening their programme to include additional courses or subjects. Statistical analysis of the information in the database could determine the overlap between discontent and plans to change: the stronger the relationship, the more flexible is the system in accommodating a modification in student choices.

## *Experience*

- Do you enjoy what you are studying?
  - If yes, why?  
(Prompt for: relevance, intellectual stimulation)
  - If no, why not?  
(Prompt for: quality and availability of faculty, quality and usefulness of lectures, relevance and fairness of examinations, student feedback and input in lectures/course programming/university governance, quality of facilities (classrooms, labs, libraries etc.))
- Do you have problems with access to materials, e.g. textbooks?
  - If yes, why?  
(Prompt for: cost, availability.)

76.6-96.6% of respondents report that they enjoy their studies in some form. This is not a wholesale endorsement but includes answers such as “more or less”, “partly” etc. The approval ratio is highest at ESM. The majority of respondents find their subject intellectually stimulating but doubt its relevance. (Possibly, there is a negative correlation between parental guidance in enrollment choice, and intellectual satisfaction.) They also complain about over-theoretical lectures, one-way teaching, and criticize that students have next to no choice in selecting course programmes. Apparently, this is on occasion somewhat better with younger lecturers who allow for dialogue and encourage feedback. Newly introduced courses, however, do not guarantee different learning experiences because they are often taught by reassigned old lecturers. A majority argues that too many irrelevant courses are compulsory, especially in the first few years of study, and prevent students from specializing meaningfully. Insofar as knowledge is at a premium, examinations are considered as fair although the existence of patronage and bribery is widespread. Student participation in university governance is minimal or non-existent; however, respondents have obvious difficulties in articulating what it is they would change about the current practice. With the exception of ESM, the quality of university infrastructure is generally assessed as poor; what is worse, some respondents point to the detrimental effects this has not just on learning, but also on motivation for both students and teaching staff. Students also describe the study environment as one of primarily self-education, namely one in which, with the exception of lectures and exams, there is little didactic interaction between students and teaching staff. Demands both on students and on teaching staff should be raised to change this.

Between 1 and 2 students out of 10 complain about access problems to teaching materials. Somewhat surprisingly, the figure is highest at TSU where the absence of textbooks in the Georgian language is felt most acutely. Possibly this does not reflect a worse supply situation at TSU but more advanced teaching, requiring more up-to-date literature.

### *Employment*

- Do you think that you are going to find a job after graduation?
  - If yes, in which area?
  - If no, why not?

(Prompt for: no jobs in general, wrong skills.)

- If yes, who is likely to employ you?  
(Prompt for: self-employment (in services/in manufacturing), domestic firm (in services/in manufacturing), public sector, foreign firm (in services/in manufacturing), employer outside Georgia.)
- Does your institution provide career support service, and have you made use of it?

68.1-86.2% of respondents are confident that they will find a job after graduating. In light of the high youth unemployment in the country, this is a surprisingly positive estimate. However, many respondents are realistic enough to foresee that their eventual job is unlikely to be in their field of study. This is especially the case for students of technical, natural, and agricultural subjects.

Apart from ESM, career support exists only informally. It is least developed at GAU, and most at TSU, even though the usage rates are extremely low at all three public institutions. Probably this contributes to the malfunctioning of the labour market discussed in section 2. To work, markets require information. Career support services could help provide that information. They could also help track where graduates end up working. This would help employment policy in general, and university resource planning in particular.

### *Financing*

- Status:
  - If fee-paying, how much p.a.?
  - Who pays for it?  
(Try to find out whether the interviewee paid a bribe to pass the entrance examination or to access the course programme, and how much it was.)
- Pre-enrolment expenses:
  - Did you have tutors prepare you for university entry?
  - If yes, how and why did you chose them?
- Part-time job (which?):
- Lodging:  
(Prompt for: in dormitory, with parents, with other relatives, by themselves.)

Between 1 and 3 students out of 10 at the public universities are fee-paying. Tuition-based enrollment is higher the more prestigious the university and thus to some extent reflects market demand. Fees are primarily paid by parents.

About a quarter of state students report that they know of patronage and bribery, or that they themselves use such practices. The former appears to be more common in entrance examinations, the latter in annual exams. Again, the amount of bribes varies from a few lari to a few thousand dollars and reflects market demand, both across and within universities: the most prestigious departments command the highest sums. One version of bribery which is particularly compromising to the

overall quality of education is the widespread practice to purchase textbooks authored by the course lecturer, in exchange for a passing grade. Reportedly it is occasionally impossible to receive a passing grade without purchasing the textbook in question, thus contributing to the lecturer's income. Students generally are critical of these practices but, in light of the low teacher salaries, also express sympathy. Respondents also indicate that, bribery being an acceptable Soviet practice, younger lecturers are less prone to operate in this fashion.

Between one thirds and two thirds of the respondents used tutors to prepare themselves for entrance examinations. These preparations are either substantive or merely guarantee a favourable assessment of the candidate through the presence of the tutor on the examination board. The use of tutors highlights a possible equity issue in that it is highest among the most-privileged group of students (ESM), and lowest among those attending the least prestigious university (GAU). Again, statistical analysis of the data base should verify issues of geographic origin, income, and enrollment choices.

Between 1 to 3 students out of 10 report to have part-time jobs. Statistical tests would determine to what extent the incidence of jobbing is related to other indicators that proxy social status and, hence, whether it highlights equity issues.

### 3.2.3.3 Workshop

In the discussion of the findings from the survey with students from TSU and GTU, the following issues emerged. First, the students confirmed the inadequacy of the available resources. This is particularly dramatic in the science-based disciplines. Examples included the poor library and course-specific issues such as IT textbooks dating from the 1970s. Some teaching staff apparently have their students translate foreign material for which they receive a pass grade on the course. The translated material then becomes a teaching manual. In less benign cases lecturers translate material and present it as their own work. Second, the teaching staff are not always qualified to cope with new subjects. In the attempt to reinvent themselves, universities introduced formerly outlawed subjects such as religion that are now taught by the same staff that previously lectured on the history of atheism. Similar "transformations" can be found in political science departments that evolved out of departments of scientific communism. The discussions confirmed that younger lecturers, especially those with foreign experiences, use more engaging teaching methods. However, this apparently is met with resistance by older and more senior staff. Third, individual departments make genuine efforts to modernize themselves. The Departments of Communications and Informatics at GTU are undertaking promising reforms: In some subjects, the curricula now allow for a considerable degree of student choice in the later years of study. Also, the increase in the number of exams and frequent quizzes reduces the incidence of patronage and corruption. But overall the range of required subjects is still too large -- for example, law students must take classes in mathematics.

## 3.2.4 Experiences and views of teaching staff

### 3.2.4.1 Survey design

The survey aimed at obtaining detailed information from university faculty about their experiences, work practices, and attitudes towards reform in higher education. Care was taken to guarantee that the sample be representative in terms of age, gender, and discipline. For the time being, the statistical assessment is primarily descriptive (see Table 3.2.4.4.1 in the appendix). It is augmented by qualitative reports based on semi-structured interviews.

### 3.2.4.2 Results

#### *Personal and Affiliation Info*

- Age
- Gender
- Place of birth
- Marital status
- Children
- Other dependents
- Institution
- Department/chair/institute
- Rank
- Year of entry into service

The average age was 50-52 years for the respondents from the state universities. ESM faculty was considerably younger (37 years). In terms of gender distribution, it was exactly 50:50 for ESM and TSU and close to it for GAU, while two thirds of the respondents were male at GTU. A large majority of respondents was married; among the state faculties only 20-28 per cent were single (which includes widows and widowers). Average children numbers range from .9 to 1.6; dependents from .3 to 1.3. A majority of the staff have been on the faculty for a long time; in fact, average year of entry into service is 1971 for GAU and 1975 for TSU and GTU. It is 1994 for ESM, reflecting its shorter history.

#### *Job Description and Workload*

- Which subjects do you teach?
- How many hours a week do you spend on (1) teaching (2) administration (3) research (4) other (please specify)?
- Are you happy with this distribution or would you like to change it and, if so, how and why?

For the state universities, the more time faculty spend on teaching, the less they devote to research. Hence, the research/teaching ratio is lowest for GAU and highest for TSU. The average administrative load is 5.9 to 6.6 hours per week. Except for deans and other faculty in senior positions, teaching staff seem to be little bothered by administrative responsibilities. In fact, many lecturers spend no time on administration whatsoever. At ESM the workload is teaching-heavy which reflects the fact that the school does not employ full-time faculty. All their staff work elsewhere,

partly in research. Between 1 and 3 respondents out of 10 would like to change this distribution. More time for research is an often named suggestion, especially at TSU. Some staff complain that normal university life is so full of problems that they cannot get any research done whatsoever.

### *Compensation*

- Did you regularly receive your salary over the last 12 months?
  - If no, what was the longest period you did not receive it?
- Do you have another job?
  - If yes, in which area?

Almost nobody at the state universities received salaries without delay over the past year. The average delay was between 2 and 4 months. Some respondents regarded this as not too bad relative to other experiences in the public sector with much longer delays. They also argued that the miserably low compensation made it almost impossible to notice the difference between an existing and an imagined paycheck. For example, compensation for a 60-minute lecture at TSU in 1998 varied between Lari .52 and Lari 2.4, depending on qualification and public or private track. Some faculty complained that they depend on their children for subsistence.

Most staff have other jobs except at GAU where only 1 out of 4 work outside the university. Moonlighting seems to reflect not just need but also employability; hence, ESM and GTU staff have skills more in demand than those from GAU and TSU.

### *Governance*

- Do you regularly participate in meetings of governance bodies (e.g. academic senate, departmental council etc.)?
  - If yes, do you or your peers help set the agenda for these meetings, or are you primarily a passive participant?

Between a fourth (ESM), a third (TSU), two thirds (GAU), and almost everyone (GTU) report to participate in governance. It is possible that this stark variation is due to what the participants were made to believe what governance implied: possibly this included department meetings at GTU and started only at higher up levels at TSU. Only at GTU and GAU do there seem to be meetings in which participants are merely passive listeners.

### *Curriculum*

- Who is responsible, in general terms, for the content of what you teach? (Prompt for national standards, university or faculty regulations etc.)
- Who is responsible for your syllabus?
- Is your syllabus ever discussed between yourself and your peers?
- Has your syllabus significantly changed over the last 10 years?
  - If yes, how?
  - If no, why not?

- Do you feel that the content of what you teach helps students find a job after graduation?
  - If no, why not?

With the exception of GAU, almost all faculty report that course syllabi are discussed among peers at the departmental level before being referred to the methodological committee for approval. At GAU this figure is only 24.1 per cent which suggests a high degree of lecturer autonomy in making up their teaching programme. It also suggests that there is possibly a low degree of homogeneity within different components of degree programmes. Close to or above four fifths of respondents report that their syllabi have changed over the last ten years. The most important reason given for this are changes in economy and society as well as advances in the field. It is important to confront this information with the results from the student survey which show that changes are often merely in form rather than in substance. At least two thirds (TSU) and as many as all (ESM) respondents think that the subject they teach will help students find a job. Oddly, this flies in the face of information about above average youth unemployment in Georgia. Those that are more pessimistic in their outlook admit that it is painful to realize that one's specialty no longer plays a role in the future of the country.

### *Teaching Practice*

- How do you organize your lectures:
  - you only lecture
  - you lecture and invite class discussion
- Do students ever present their work in class?
- Are students evaluated always individually or do you occasionally grade team work?

A minority of the faculty organizes its teaching by lecturing only. This does not correspond with the results from the student survey according to which teaching is unidirectional and does not promote dialogue or invite feedback. A majority requires student presentations but always evaluates people individually, that is never in teams.

### *Students*

- Please comment on the motivation of your students.
- Please comment on the quality of your students.

Job market expectations and the need to obtain a diploma are the most important reasons for students to enroll. In terms of quality, student intake has improved recently compared to the period of civil strife in the early 1990s. However, the poor quality of basic education still impedes the quality of higher education, especially in the beginning.

### *Exams*

- Are the exams that you administer
  - always oral
  - oral and written?

- In a parallel survey of students at various institutions of higher education, a significant number of respondents reported that it is common practice for students to pay bribes to pass entrance examinations as well as course examinations. Would you like to comment on this? (Try to engage the interviewee in a conversation about this. What are the sums involved? Who benefits directly and indirectly? If the interviewee is critical of this practice, ask them what could be done to stop this. If the interviewee is supportive of this practice, try to find out the reasons.)

Only at GAU are the majority of exams primarily oral. Elsewhere, oral exams are accompanied by written tests. Fewer than half of the respondents acknowledge the existence of patronage and bribery. This seems to be more pervasive among older staff, both because they are used to it and because they have less of an opportunity to find supplementary income.

### *Experience*

- Do you like your job?
  - If yes, what do you appreciate about it in particular?
  - If no, what bothers you?
- If given the opportunity, would you be interested in participating in seminars to update your knowledge and upgrade your teaching skills?
  - If yes, what kind of format/content would be most useful to you?

Almost all respondents regard their job as a positive experience. In light of the existing working conditions, this is truly admirable and testimony of the stamina and dedication of sizable parts of the teaching staff. Similarly, a majority would agree to participate in seminars. It is interesting that primarily younger faculty manage to articulate what they would expect from such seminars, and often mention new teaching methods as well as exchange with foreign colleagues.

### 3.2.4.3 Workshop

The review of the survey findings with teaching staff from GTU and TSU produced a fairly heterogeneous set of opinions. For example, some held that the level and quality of teaching in Georgian universities match international standards, and that the only problem is insufficient resources. Students are not in a position to criticize curricula because they do not know what skills they need. The same participant who made this point also argued that the alleged skill mismatch that resulted from our employer survey was due to an unrepresentative sample of firms. All participants concurred that the resource situation is dramatic and about to reach a point of no return. For example, the absence of academic journals for almost a decade means that catch-up to the international knowledge frontier is lost forever. Deficient equipment also affects the administration: student enrollments are still registered manually for lack of computers. Teaching loads are excessive: for a salary of USD50, faculty must give some 14 lectures a week, on top of student supervision. Nobody in the group supported the military chairs and some argued that they should be abolished.



It was argued that not always have reforms been thought through. For example, graduates with bachelor degrees are sometimes only qualified to work as assistants in their profession. This is the case in psychology. The department concerned is trying to rework the curriculum so that BAs can qualify as social workers but without technical support it will not succeed. A few participants remarked that university decisions are not collectively arrived at. For example, staff layoffs in recent years fell disproportionately on younger teaching staff and spared administrative personnel. Also, the overall university budget is not known, highly centralized, and keeps departments dependent even when they win outside research contracts. None of the participants knew the budget of their institutions, not even how much tuition income their own departments generated. Fees go to the central budget and are not available to improve conditions where the students that pay them study. More financial autonomy would be better for teaching and research. Regarding corruption, distinctions must be made between departments. The phenomenon exists and is serious but does not affect all departments.

### 3.2.5 Analysis of a reform project: GIPA

What becomes clear from the two surveys is that students and teaching staff differ in their assessments of the relevance, content, and delivery of curriculum. This is normal. But because the universities do not use performance indicators and because there is no other form of institutional dialogue which would allow the collective evaluation of teaching and learning experiences, endogenously generated reform is difficult to envisage. What would seem more promising are strategically located pilot projects that have a signaling effect on institutions at large and that facilitate learning how to think about and organize change. One such project is the Georgian Institute of Public Administration (GIPA).

GIPA was founded in 1994. It is an independent non-profit organization hosted at (but not governed by) GTU. Partners in the venture are the Georgian government and the US National Academy of Public Administration (NAPA). The mission of the institution is to train students and mid-career professionals at master's level, leading to a degree of Master of Public Administration. In addition, the school provides consulting assistance to officials and civil servants in public administration. Project financing came from USIA, Eurasia Foundation, the East-West Development Foundation, and OSI. GIPA has a joint governing body to ensure that the teaching programme meets both local needs and international academic standards. GIPA is equipped with a well endowed library and provides each student with access to a computer terminal.

The first student cohort entered in 1996. Selection is based on English proficiency and on an evaluation by a selection committee with local and international officers. The class of 1999 has 35 students and is taught by ten local and nine international staff for a total course duration of ten months. This includes a month-long stage in a public agency. A career support service helps students find a job upon graduation. The placement ratio is very high. GIPA keeps track of placements; it has records for about 80 per cent of the 1998 graduates. Of these, about three out of four

worked in the public sector. The rest joined the private sector or NGOs. Nobody is unemployed.

GIPA graduates generally evaluate their experience very positively. They argue, however, that their professional competence is of not much use in a public sector dominated by old-style management practices. To avoid de-skilling, GIPA graduates formed an alumni association -- the first in Georgia -- that organizes seminars and workshops aimed at promoting a new image of public service.

### 3.2.6 Recommendations for reform

The most important barriers to the delivery of high-quality HE are outdated course contents and teaching methods, and corruption.<sup>8</sup> A bias in favour of theory and knowledge acquisition impedes learning of practice relevant skills. Patronage and bribery degrade the exercise of teaching and learning by delegitimizing serious studying and by questioning the reliability of student assessments. They also violate Georgian law.<sup>9</sup> Identifying a reform agenda is made difficult by the absence of reliable and systematically collected indicators that would allow the evaluation of performance and facilitate quality assurance. Nonetheless, the examples of ESM and GIPA show that it is possible, in the public and in the private sector, to create meaningful curricula that satisfy student expectations and to transmit skills and qualifications that correspond to existing demand in the labour market. Case studies of related projects such as the Public Administration College of Tacis (PACT) or the Caucasus School of Business Administration might well strengthen this finding. For the time being it appears essential that projects be managed in local-international partnerships to ensure their success.

However, to organize quality assurance across HE is a daunting task that none of these schools is equipped to deal with. Nor can faculty be relied upon who believe that, except for the lack of resources, HE is essentially a well functioning system. To approach this task would take a pilot project in education management that exemplifies how to organize curriculum design; how to create indicators that allow to evaluate the performance of curriculum delivery; and how to manage the process of teaching and learning in the face on ongoing change. At the same time, such a project should be able to feed into the system by making staff expertise available for education management in the government, in parliament, in the universities, and in other training institutions. It is currently impossible to train properly in education management. The creation of a master's programme in education management would release graduates with the ability to introduce quality assurance across the system. It would also make on-site expertise available for technical assistance in the areas of educational planning and reform.

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<sup>8</sup> In principle, students and parents could sue education institutions for low-quality teaching. "The detriment inflicted by an education institution via low-quality teaching (if an education institution violates the state education standards, program of the education institution, terms of the studying contract, or carries out teaching by the state education standards and programs incompatible to the international rules and/or standards) must be compensated at the expense of the institution according to the rule envisaged in the civil legislation" (Law of Georgia on Education, Art.29, para.1).

<sup>9</sup> Art.43, para. 3.c) of the Law of Georgia on Education states that "[a] teacher of an education institution is obliged...to protect the norms of professional ethics."

The good record of partnerships between local and international institutions suggests that this format be used in other areas of education policy as well. Hopefully, the scheduled work on accreditation provisions will provide a regulatory background against which students, teachers, and employers can judge degree programmes on their merits, thus further stimulating curriculum development and reform. To this end, the accreditation process should have an international anchor to ensure the adoption of viable standards and merit-based evaluations.

**Miss Wormwood:** *You have a question, Calvin?*

**Calvin:** *More of a statement, really. I just want to say that education is our most important investment in the future, and it's scandalous how little our educators are paid!*

[...]

**Miss Wormwood:** *OK, hands up. Who else didn't do the homework for today?*

### **3.3 Efficiency: Does the system make good use of limited resources?**

#### **3.3.1 HE provision and the market**

In Georgia as elsewhere, competition for resources on the public budget is on the rise. HE accounts roughly for one half of total education spending in the country and the per-student expenditures in HE are higher than in primary, secondary, or vocational education. Thus, the efficient use of resources, financial management, personnel policies and so forth have a direct bearing on the quality and the relevance of the service the universities provide. At the micro level, this raises the question whether senior administrative management have the expertise and the necessary technical back-up to undertake the kind of strategic and financial planning and decisionmaking essential to make demand-driven approaches to HE succeed in the long run. At the macro level, it poses the problem whether public funding is aligned with incentives for recipient institutions to overcome weaknesses, namely improve quality or advance curriculum development.

Three institutions -- GAU, GTU, and TSU -- cooperated with the team in an institutional audit of resource management (for a plan of the inquiry see the appendix). The audit broadly tried to understand the structure of decisionmaking; what kind of data each institution collects; how these data feed back into strategy and planning; to what extent IT support exists; and how important private funding is relative to public funding. We did not manage to collect all these data from all three institutions. Generally, TSU provided the most complete set. In part, this is due to better IT support at TSU. At GAU, for example, some of the information we received was handwritten and thus clearly more time-intensive to retrieve for the staff that cooperated with our inquiry. However, even where IT support is available, data do not always match. For example, breakdowns of administrative personnel by age and by gender frequently yielded different totals. Elsewhere, institutions professed not to have this kind of information at all. In sum, therefore, none of the three institutions has a complete management information system in place. However, our analysis makes it possible to relate the kind of data collected with the way in which it does (or does not) inform strategic decisionmaking.

### 3.3.2 Decisionmaking

None of the institutions has an organization chart. The team developed charts on the basis of the institutions' statutes and regulations (see Charts 3.3.2.1-3 in the appendix). Decisionmaking structures are, in the words of one administrator, "informally known". In keeping with Georgian tradition, personal relations rather than rules determine the way things are done. The universities are highly centralized, with a very powerful rector's office at the top. Formally or informally, all decisions about enrollment, hiring and firing, and especially budgeting, lie with the rector's office. Teaching departments have no degree of financial autonomy; in fact, teaching staff often have no idea about their departmental budget.

### 3.3.3 Funding

In all three institutions, the importance of privately generated income is on the rise. However, the share of private in total funding differs greatly. Not surprisingly, income from private sources is highest and rose fastest at TSU. In 1998, TSU's private income totaled Lari 4,358,814. This is 40 per cent more than in 1997, resulting in a profit in excess of Lari 1 million. For the first time, private income was practically as high as educational funding from the state budget. Altogether, the share of private in total income was about 45 per cent. At current growth rates, in 1999 private income is likely to be higher than public educational and research funding.

At GTU, public funding is about four times higher than fee-based income alone. At GAU, which introduced tuition-based enrollment only last year, public funding is about five times higher.

Table 3.3.3.1 -- Sources of University Income, 1998, in Lari

<u>University</u>	<u>State</u>	<u>Private</u>
TSU	5,229,261	4,358,814
GTU	4,190,222	1,030,081
GAU	1,018,800	199,317

Note: GTU's private income is underreported because it includes only tuition.

Source: GAU, GTU, TSU

### 3.3.4 Expenses

Most expenses are for wage and non-wage costs. The structure of expenditure differs between the state scientific, state educational, and private income budgets. At TSU, more than 90 per cent of the state scientific budget is used for salaries and employer contributions. In the state educational budget, about one half accounts for wage and non-wage costs. A quarter of the budget goes to operating expenses, some 8 per cent to capital repairs. 70 per cent of fee-based income is used for salaries (but not for employer contributions), operating expenditures account for 17 per cent, capital repairs for 8 per cent. This means that compared to publicly funded teaching staff, private tuition translates into more cash-in-hand for lecturers. Also, the higher share of outlays for social security and operating expenses from the state educational budget means that the state budget effectively subsidizes teaching in the tuition track. Tax revenue from private income is extremely low.

Table 3.3.4.1 -- Structure of Expenditures at TSU, 1998, in Per Cent

<u>Position</u>	<u>State scientific</u>	<u>State educational</u>	<u>Private</u>
Total	100.0	100.0	100.0
Salaries	70.1	40.2	71.9
Non-wage costs	21.0	12.0	..
Trips	1.4	.8	..
Goods & services	6.5	25.9	17.3
Capital expenses	1.0	7.6	8.3
Transfers	..	13.4	..
Taxes	..	..	2.5

Source: TSU

### 3.3.5 The relationship between funding and enrollment

In 1998, TSU generated more than 80 per cent of its revenue from tuition from seven of its 18 departments (biology & medicine, history, western European languages, law, international law, economics, microeconomics & management). Law and economics alone accounted for 47 per cent. Two thirds of TSU's students are enrolled in these subjects. More importantly, the disciplines in which the university in 1998 enrolled more fee-paying than state-order students belonged almost exclusively to these revenue-intensive departments. Put differently, the subjects from which TSU generates approximately 50 per cent of its income account for approximately 50 per cent of enrollment. By contrast, the subjects which account for approximately 50 per cent of state-order funding, reflect less than 50 per cent enrollment. This means that fee generation drives both flows and stocks of student enrollment across disciplines.

Table 3.3.5.1 -- Fee Income and Enrollment at TSU, 1998

<u>Department</u>	<u>Fee income (lari)</u>	<u>Enrollments</u>	<u>State-order/fee</u>
Mechanics and Math	2,625	293	78/0
Applied Math	13,170	323	11.9
Physics	3,375	437	136/0
Chemistry	34,893	328	3.6
Geography & Geology	22,265	489	9.1
Biology & Medicin	266,037	738	.7
Philosophy & Sociology	37,419	280	2.7
Psychology	43,410	242	1.4
History	253,188	923	.8
Philology	155,520	1,136	2.5
Journalism	73,702	357	1.5
West. Europ. Languages	354,585	1,009	.9
Oriental Studies	46,955	273	2.1
Law	1,097,099	3,400	.3
International Law	193,745	621	1.1
Economics	443,063	1,925	.7
Microec. & Management	90,148	1,357	3.1
Commerce & Marketing	117,648	941	2.5
TOTAL	3,248,757	15,072	..

Note: enrollments = total; state order/fee = ratio of new enrollments in 1998.

Source: TSU

A similar phenomenon is observed at GTU where the most revenue-intensive departments -- social sciences, informatics, transport -- also have the highest student enrollments. It is driven to a paradox at GAU where fee-based enrollments in law, journalism, and business-related subjects dwarf those in GAU's traditional subjects such as agro-technology or forestry. In fact, there are now more students of economics at GAU than at any other faculty; altogether they account for about a third of total enrollment.

Table 3.3.5.2 -- Fee Income and Enrollment at GTU in Per Cent, 1998

<u>Department</u>	<u>Income</u>	<u>Enrollment</u>	<u>Fee-paying students</u>
	-	-	
Transport	5.1	8.5	11.5
Informatics	28.6	14.3	26.6
Social Sciences	57.2	20.9	32.3
TOTAL	90.9	43.7	70.4

Source: GTU

In 1997/98, state-order contingents for TSU broadly prioritized the growth disciplines history, law, and economics-related subjects (see appendix). The government differed from private-sector demand by weighing its funding also in favour of maths, physics, chemistry, and philology (primarily Georgian language and literature). The largest difference exists in physics which received eight per cent of the publicly funded student quota while accounting for less than .1 per cent of fee-based income. Three per cent of all enrolled students study physics, but the discipline accounted for 4 per cent of all new enrollments in 1998. This means that state-order contingents do maintain institutional capacity in the face of adverse demand trends -- indeed, not a single new enrollment in physics was in the tuition track. Departments low on the government's list of student quota allocations that also generate only minimal private income, are geography, philosophy, oriental studies, and journalism. Without public support, they are unlikely to survive.

Table 3.3.5.3 -- State Order Contingents at TSU (Tbilisi Campus), 1997/8

<u>Discipline</u>	<u>Enrollments</u>	<u>Share of total quota</u>
–	–	
Maths	126	7.5
Physics	140	8.3
Chemistry	65	3.9
Philology	128	7.6
History	80	4.7
Law	125	7.4
Economics and business	480	28.5
TOTAL	1,685	100.0

Source: Ministry of Economy

Table 3.3.5.4 -- State Order Contingents at GAU (Tbilisi Campus), 1997/8

<u>Discipline</u>	<u>Enrollments</u>	<u>Share of total quota</u>
–	–	
Banking	29	5.3
International economic relations	32	5.9
Mechanization	65	11.9
Electrification	35	6.4
TOTAL	545	100.0

Source: Ministry of Economy

At GTU, state orders follow no apparent strategic rationale; they are widely -- and, hence, thinly -- distributed across all disciplines. At the Tbilisi Campus, subjects receive an average of 14.5 state orders. The only substantial outliers are mechanical engineering technology (75), municipal and industrial building (50), architecture (45), and automation and control in technical systems (40) which all belong to less sought after departments. At GAU, the pattern is similar to public funding at TSU. The government supports subjects in demand, such as banking and finance or international economic relations, and those in decline like mechanization and electrification. Hence, it both helps institutions reinvent themselves and protects them from the market.

Whether the exercise of re-invention is successful, and whether state orders in subjects that face declining demand promotes or stalls structural adjustment, warrants further analysis. Reliable assessments depend on a systematic evaluation of performance indicators and quality criteria as discussed in section 3.2. It would appear highly questionable to forego the possibility of advanced training in farm and food-sector related subjects. Half the labour force works in this sector and in 1996 generated about a third of gross value added (Transcaucasus Countries 1996). But Georgia has negative balances in food and farming products -- exports cover roughly a fourth of imports. The fragmentation of the sector after privatization, with most of the production destined for subsistence, means that modern technologies and management techniques are much needed to lift the potential of the sector. It is not clear where the training for this could happen if not at GAU.

### 3.3.6 Fee structure

At TSU, annual tuition fees are Lari 900-1,200 (see appendix). In four subjects they are somewhat lower. Fees tend to be higher in the first year of undergraduate and the last year of graduate study. Apart from this, they hardly differ across departments. This means that they do not reflect demand. For example, in history a first-year student pays just as much as in mathematics. This is different at GTU where the departments most in demand -- social sciences and informatics -- command a multiple of the tuition in metallurgy or mining. Information from GAU is difficult to evaluate because tuition has been introduced only in 1998. Fees at TSU also do not reflect costs because training, say, a chemist must cost more than training a microeconomist but tuition for both subjects is the same, and because large departments charge as much as small ones. Hence, the fee structure is not informed by average costs which clearly must be different across departments. [*Note: There is a discrepancy between the published fee structure and the information about fee-based income by department. If the latter is divided by student enrollment, it consistently yields lower fees (except for law). So either the information is inaccurate, or fee-based income reflects delayed payments (which are then not accounted for in the special-funds budget), or the difference somehow gets lost in the system.*]



Table 3.3.6.1 -- Fee Structure at GTU, 1998, in Lari

Department	Enrollments	Fee
Engineering	32	218
Transport	179	291
Physics	11	181
Informatics	416	707
Chemistry and biology	84	212
Communications	54	289
Aviation	144	123
Hydrotechnics	4	196
Electrical engineering	31	339
Architecture	28	235
Social Sciences	504	1100
Mechanics and machinery	43	250
Metallurgy	4	150
Mining	28	167
TOTAL	1562	..

Source: GTU

### 3.3.7 Degree progress and completion, and attrition

TSU collects information about enrollments, transfers, and graduations by subject and department. Unfortunately, this information is currently available only for 1998. This means that for the time being it is impossible to calculate through-put or attrition rates which are important indicators of system efficiency. Nevertheless, the available data allow for interesting insights about the development of TSU. First, graduating students exceed new enrollments by 30 per cent. Most of them receive ordinary degrees (63%)<sup>10</sup>, a good third receives bachelors (36%), and one per cent graduate with a master's degree. Thus, overall student numbers are likely to fall; this process may slow down with increasing numbers of students opting for master's level education. Second, the Department of Law is a trend setter. Its intake rate is below average which presumably reflects limited absorption capacity in what is already the biggest department. But in terms of absolute numbers it clearly shapes the new face of TSU. The department has by far the lowest graduation rate. This should be a reason for concern -- either there are many drop-outs; or students take longer than in other subjects to finish; or a large part of the current cohort enrolled after 1995. Third, some marginal departments (maths and mechanics, physics, and geography and geology) are expanding thanks to government support. But since they individually account for a mere 1-2 per cent of total enrollment and graduation, this makes little difference. In line with market demand, others are contracting (applied maths, philosophy, history, philology, journalism, oriental studies, chemistry, and psychology). Fourth, unlike law, the three economics departments enroll fewer students than they graduate. The

<sup>10</sup> These are the degrees awarded to students who enrolled before the introduction of the 4+2 system.

attraction of this field is not in doubt; perhaps this phenomenon reflects the influence of private HE institutes in this area. Fifth, insofar the situation of 1998 reflects longer lasting trends, TSU in fact is losing its identity as a comprehensive university – instead it is becoming a school of law, economics, and modern languages.

Table 3.3.7.1 -- Intake and Output Rates at TSU, 1998

Department	Students				Per cent		
	Stock (1)	New (2)	Transf.(3)	Leavg (4)	Intake ratio (2+3)/(1)	Output ratio (4)/(1)	Outp./Intake (4)/(2+3)
TSU	15,072	3,528	255	4,877	25	32	130
Mech.&Math.	293	78	1	51	27	17	64
Applied Math.	323	104	0	118	32	36	113
Physics	437	136	0	85	31	19	62
Chemistry	328	82	0	123	25	37	150
Geol.&Geogr.	489	131	3	116	27	24	87
Bio.&Med.	738	208	14	175	30	24	79
Phil.&Soc.	280	77	1	152	28	54	195
Psychology	242	67	1	94	28	39	138
History	923	251	14	451	29	49	170
Philology	1,136	194	6	478	18	42	239
Journalism	357	68	2	153	20	43	218
WE Lang.&Lit.	1,009	239	105	387	34	38	112
Oriental Studies	273	69	1	134	26	49	191
Law	3,400	678	4	396	20	12	58
Int'l Law & IR	621	136	1	105	22	17	77
Economics	1,925	490	69	889	29	46	159
Micro.&Mgm't	1,357	288	17	560	22	41	184
Comm.&Mktg	941	232	11	410	26	44	169

Source: TSU

### 3.3.8 Exams and quality monitoring

At TSU, examination records show that, depending on year of study, 9-31 per cent of students achieve top marks while on average only 3-6 per cent fail in at least one exam. In the master's track failures are practically non-existent. Performance curves are skewed toward a disproportionately high share of top marks in chemistry, history, oriental studies, law, and international law. Put differently, students of history, journalism, and (international) law only excel, never fail. Examination scores reveal differences in the performance of fee-paying and state-order students. The former generally fare worse, and their failure rate is highest in Western European languages and literature, oriental studies, economics, and international business. If the difference in performance is systematic – something that could be tested easily – it signals that the universities solve their resource problem by promoting fee generation at the expense of quality management through careful student selection. The long-term effects on the current student generation and, by implication, for Georgia are disheartening to contemplate.

Table 3.3.8.1 -- TSU Examination Results, 1997/8, 2nd Semester

Year/Department	Students	Per cent		
		Passed all	w/ highest marks	Failed at least one
<i>State-order</i>				
1	2,823	98	17	2
2	2,882	96	16	4
3	2,658	95	18	5
4	631	100	24	0
5	246	99	16	1
6	32	100	31	0
<i>Fee paying</i>				
1	794	97	9	3
2	951	94	8	6
3	664	91	10	9
4	246	99	14	1
5	142	100	21	0
6	17	100	18	0
Applied Math	2	50	0	0
Physics	2	100	0	0
Chemistry	25	100	28	0
Geography and Geology	27	89	0	0
Biology and Medicin	224	63	8	0
Philosophy	35	91	9	0
Psychology	34	97	12	0
History	200	96	17	2
Philology	148	95	9	1
Journalism	104	99	12	1
Western European Languages and Lit.	348	90	5	6
Oriental Studies	44	87	14	9
Law	625	98	14	0
Int'l Law and Int'l Relations	205	99	14	1
Economics	298	88	5	5
Microeconomics and Management	34	82	6	3
Commerce and Marketing	89	98	6	0
Art	166	97	11	0
International Business	287	94	7	6
TOTAL	2,897	94	7	6

Note: Where columns 3 and 5 do not add to 100, students have been fired or have transferred.

Source: TSU

By contrast, at GAU grade inflation appears less widespread and more department-specific. For exams taken in 1998, 16 per cent received the top mark. This share was almost twice as high in economics which is a newly introduced subject at GAU. By contrast, in electricity fully three quarters of those sitting the exams received a bare passing grade or were failed. This is an alarm signal indicating, for example, poor enrollment selection or bad curriculum delivery. That economics is GAU's most revenue-intensive department, sits uncomfortably with this finding.

Table 3.3.8.2 -- Exam Results at GAU, 1998

<u>Department</u>	<u>Students</u>	<u>Per cent</u>		
		<u>Passed all</u>	<u>w/ highest marks</u>	<u>Failed at least one</u>
Agrarian	316	80	18	20
Hortic./Winery	237	75	9	25
Sericulture	36	61	5	39
Forestry	135	85	7	15
Economics	321	65	30	35
Hydromelioration	91	78	17	22
Mechanization	162	85	5	15
Electricity	112	66	8	34
TOTAL	1,410	75	16	25

Source: GAU

### 3.3.9 Personnel

In the 1999 state budget, employment at TSU, GTU, and GAU is reported as 5,687, 4,869, 1,078, respectively. These numbers show positions rather than employed personnel. Nonetheless, compared to student enrollment, these are huge figures. For example, TSU has 1,448 positions devoted to scientific research, GTU 713, GAU 118. Given that Georgian universities for most of this decade have not even had the funds to maintain subscriptions to academic journals, let alone keep up the state of labs and equipment, it is not clear exactly how this scientific personnel contributes to each university's goals.

The figures discussed in this section are much lower: they number only in the hundreds for combined administrative and teaching staff. All universities have a top-heavy structure that reflects centralized control over finance, personnel, etc. Very little administrative personnel is assigned to individual departments. This, in turn, reflects the low degree of devolution of the system. The age structure differs across units. For example, in the methodological division at GAU, which has oversight of the curriculum, half the staff are older than 60. Where administrative staff work at departments, the connection between staffing and enrollment levels is not obvious. For example, more than half of TSU departmental administrators work in the departments of physics, philology, and journalism. But the combined enrollments of these departments are just over one half of those in law where there are only five administrators. At GTU, nine administrators look after 2,453 social science students, while the aviation department, with 507 students, has 21. Whatever the logic of these assignments, it is clear that reform proposals aimed at empowering departments to organize reform in a decentralized fashion can work only if administrative personnel is shifted to support them in accordance with their size.

Table 3.3.9.1 -- Administrative Personnel, 1998, in Per Cent

Category	TSU	GAU	GTU
Total	100.0	100.0	100.0
Departments	28.2	..	12.1
Rector's office	44.7	45.0	64.9
Maintenance	14.0	39.8	..
Other	13.1	15.0	23.0
<i>Gender</i>			
Women	60.1	36.3	..
Men	39.9	63.7	..
<i>Age</i>			
<25	17.9	..	..
25-40	27.1	26.0	..
41-60	52.7	53.7	..
>60	2.3	20.3	..

Source: TSU, GAU, GTU

Student/teacher ratios yield similar insights. In general, they are low. At GTU, they range from 14.2 in informatics to 3.2 in architecture. At GAU, the *average* student/teacher ratio is 3.4; the department of mechanization has 54 faculty and no students. On the other hand, 100 staff look after 531 students in the department of economics, GAU's biggest. At GTU, a third of the teaching staff are over 60, and 15 per cent between 25 and 40. The over sixty year-olds account for more than 40 per cent in metallurgy, informatics, and the general chairs. Thus, if pensions guaranteed a decent retirement income, it would be relatively easy to solve the problem of overstaffing.

### 3.3.10 Costing

Strategic resource planning presupposes adequate information about the costs an institution faces. In our interviews with policymakers and university administrators, the team asked about unit costing. Answers ranged from Lari 200 to USD 3,000. These figures are arrived at either by simply using past parameters, or by dividing current expenditure through the number of students.<sup>11</sup> Obviously, this is a rather imperfect method. First, it fails to differentiate between courses offered and is thus unable to differentiate profitable as opposed to deficitary subjects. Second, it hides rather than detects implicit internal transfers. An institution may well decide to

<sup>11</sup> Arguably, administrators confuse unit costs with unit *revenues*. In one demonstration of this a staff member at TSU presented three different sets of unit "costs" by dividing state budget contributions by enrollments. The differences resulted from whether the numerator was planned receipts, actual receipts, or future receivables. The unit "costs" thus arrived at ranged from Lari 405.13 to Lari 577.15.

subsidize certain courses that are financially not viable when looked at in isolation but contribute to a more complex programme with a positive bottom line. But unless these transfers are made explicit, institutions are unable to do proper financial planning. Third, and related, average unit costs make it impossible to distinguish between publicly and privately funded students. Since fee-paying students make use of publicly funded services – for example, by sharing classrooms with their state-order peers – public expenditure may underwrite part of private university income. This is of particular relevance to the government in that it may end up losing control over the destination of state-order allocations. Fourth, dividing current expenditure by total student numbers make it seem as though salaries are the key component of unit costs. That may indeed be the case but totally neglects the opportunity costs associated with buildings and equipment on the universities' balance sheets. Also, such a calculation assumes that all students equally benefit from the non-teaching staff whose salaries are included in current expenditure. Thus, it makes it impossible to think about how best to reduce unit costs.

Course costing requires information about direct and indirect expenditure. Direct expenses result from the length of teaching time associated with a course; any additional time required by the teaching staff for course management; and a room rate for teaching accommodation. Divided by the enrolled students, these three measures give direct unit costs. Indirect expenses refer to all kinds of overhead, including non-teaching space, learning support equipment, the costs of central administration, and the like. Indirect expenses are indeed divided by total students. The sum of the two gives subject-specific per-student expenditure.

The three institutions we analyzed all collect some of the above information; TSU has almost all of it. From them we even received a list of all buildings, their size and (current) value, as well as a list of all, including long depreciated, IT equipment (see appendix). Hence, in principle, course costing could be developed. Because it is unclear to what extent administrative overheads (that is, not the few hundred administrative personnel discussed in section 3.3.9 but the many thousand employees the universities have in research assignments and unspecified educational positions) actually contribute to teaching and learning, an argument can be made for calculating costs on a marginal rather than an absorption cost basis. This would look at the average (state order + tuition) per-student annual income minus direct costs, thus giving the contribution a course makes to the recovery of fixed costs. Or, but this is more complicated, overheads that must be recovered against course revenues could be identified, thus revealing those that are unnecessary (cf. Burnett, Smith, and Silberstein 1994). Of course, marginal costing works only for the short run. But arguably that is where HE institutions currently are. Adopting these principles would allow the universities to direct their resources toward those subjects that generate positive contributions. For long-term development, this would appear a healthier strategy than the revenue maximization that characterizes at least some of the current enrollment strategies. Also, by helping to identify unnecessary overheads, it would contribute to streamlining the university apparatus.

### 3.3.11 Recommendations

The universities lack the technology and the expertise to operate management information systems. The environment for proper resource planning and monitoring and evaluating performance indicators does not yet exist. This also holds for the planning units at the government departments responsible for HE administration and oversight.<sup>12</sup> They would benefit from technical assistance at senior administrative level as well as from long-term input from a master's programme in education management proposed in Section 3.2.6. Funding for this could come from the state order budget. The government may want to keep its prerogative in maintaining institutional capacity in subjects for which there is no longer demand. Yet it certainly makes no sense to fund tuition indiscriminately in disciplines for which there is more than enough privately-funded demand. Again, the latter might make sense if the government introduced means-tested scholarships. But the current system of state orders is strictly meritocratic in design and, thus, not open to equity considerations. Finally, if the government wants to encourage bottom-up experiments it could offer incentive funding for universities that experiment with new structures aimed at raising efficiency by, for example, extending intra-organizational autonomy.

## 4 Conclusions

The challenge is threefold: enhance relevance by giving graduates skills and qualifications they can put to good use in the labour market; improve quality of education delivery in general and of the curriculum in particular by helping departments define their mission and by training education managers both in-service and *ex novo*; and raising efficiency by making better use of available management tools and *performance indicators* in the context of emerging management information systems. This requires dialogue among stakeholders: between entrepreneurs and tertiary education institutions about skill profiles, career support, and partnerships; between university administrators, teaching staff, and students about curriculum and governance; and between the government and HE institutions about transparency, accountability, and mutual support.

HE in Georgia has had to cope with a dramatic decline in resources. A minority of institutions has managed to reverse this decline by resorting to the private sector. But hard choices have yet to be made. So far, the main adjustment of the system has consisted of maintaining service while running down its capital endowment. This has reached unsustainable levels that endanger system viability in the long run. Institutions will have to downsize, merge, or otherwise consolidate in order to free resources for the provision of meaningful, high-quality tertiary education. Relevance, quality, and efficiency are both means and ends: only a concentration of resources will allow to improve quality which in turn will help enhance relevance. Enhanced relevance, in turn, will feed back into quality assurance and cost-effective education management. No institution is equipped to deal by itself with the task at hand. Pilot projects as suggested in this assessment would help strike

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<sup>12</sup> In 2000, the Ministry of Finance plans to introduce a cost-based approach to calculate budget outlays per subject. This is an initiative in the right direction. However, unless universities develop proper costing and monitoring systems, the Ministry's plans are doomed.

partnerships, organize learning, build up experience, and establish expertise to advance system reform.



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## Appendix

Material for section 3.1.6:

- Questionnaire Section for Employers

Material for section 3.2.3.1:

- Table 3.2.3.1.1 – The Student Database (incomplete version)

Material for section 3.2.4.1:

- Table 3.2.4.1.1 – Teaching Staff Survey

Material for section 3.3.1:

- Questionnaire on Resource Management

Material for section 3.3.2:

- Chart 3.3.2.1 – The Structure of Georgian Agrarian University
- Chart 3.3.2.2 – The Structure of Georgian Technical University
- Chart 3.3.2.3 – The Structure of Tbilisi State University

Material for section 3.3.5:

- Student Quota to be Admitted to Institutes of Higher Education by State Commission at Expense of Georgia Central Budget for 1997/98 Academic Year

Material for section 3.3.6:

- Specialty/Department, Amount of Fee (TSU)

Material for section 3.3.10:

- Space occupation by department (GTU)
- Space by Department GAU 1998
- Buildings on the balance of TSU
- Number of Computers TSU