

# **The First Careful Step: Education Decentralization and Finance in the Republic of Macedonia**

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## Introduction

Republic of Macedonia emerged from the disintegrating Socialist Federal Republic of Yugoslavia in relatively calm manner, through an independence referendum and without armed conflicts, which devastated many other former Yugoslav republics. Nevertheless, the country faced very severe tensions. Some of those tensions were external in nature, due to continuing conflicts in surrounding countries (conflict in Kosovo, tension with Greece over Macedonian national symbols and constitutional name, see ICG 2001a). The main internal source of tensions was economic collapse of the country, with GDP still over 20% below its 1990 level. The country also experienced a short lived armed insurrection in 2001 (a spillover of conflict in Kosovo, see ICG 2001b), which was terminated with signing in Ohrid of the Framework Agreement. The Ohrid Agreement defines basic directions of future development of Macedonia, namely the devolution of significant powers to municipalities in many sectors of the public life, including education.

The decentralization effort undertaken in Macedonia since 2001 is a dramatic and complete reversal of policies pursued since independence in 1992. Indeed, in response to economic difficulties and the general turmoil in the surrounding Balkan countries, the newly independent Macedonia abandoned Yugoslav tradition of local self government and centralized all the sectors. The 34 former municipalities, with their far reaching autonomy and financial independence, were broken in 1996 into 124 much smaller and much weaker jurisdictions, with very little authority and very small budgets. Ill defined revenues of municipalities, especially the very complex and irrational equalization system, together with inadequate budgetary control and poor auditing quickly landed the municipalities in ever growing debts.

The centralization was particularly severe in the education sector, with both the political and financial dimension. The political dimension of centralization was to break the school autonomy and to make the school directly responsible to the Ministry of Education and Science (MOES). Thus although formerly influential school boards still functioned, their powers were taken away from them and transferred to the Ministry. All responsibility for the development of schools, their closure and opening, was taken over by MOES. The extreme and most painful example of this process was the nomination and dismissal of all school directors in the country by the decision of the Minister himself. The school boards retained some advisory role, but their voice was routinely disregarded, leading to politicization of the process (the turnover of school directors had a lasting damaging effect on education). At the same time, centralization meant that some schools received preferential treatment, due to their better links with responsible Ministry officials.

The financial dimension of centralization was not less extreme than the political one. Budgets of all the schools were decided by the Ministry, with decision powers for the funds allocated from the state budget, and approval powers with respect to own revenues of schools. All school expenditures went through the centralized treasury system operated by the Ministry of Finance. Thus for instance, if a student wants to buy a subscription of *Drugarche* (Little Friend, a weakly for children aged 7 – 12), the money for this purpose has to be included in the financial plan of the school, in the own revenues part. The parents pay the subscription to the school, the school deposits the funds in the treasury system, the money after a few days reaches the school account of the treasury system, and the director may finally authorize the payment to the publisher. If the subscription is not included in the financial plan, the director cannot make the payment order, with the Ministry of Finance responsible for verifying that all transactions are within the pre-

defined limits, by every school, by every detailed budget line and by the source of funds (budget funds, own revenues, grants and other).

Nevertheless, as already indicated, the new attitude to public governance in general, and to the management and financing of education in particular, following the Framework Agreement favours very strongly decentralization. Initially construed as a way of resolving ethnic tensions, the decentralization begins to be seen as a new way for the evolution of Republic of Macedonia. For the education sector, this poses an entirely new set of challenges and difficulties, and much to the credit of Macedonian authorities, a serious debate and analysis is already taking place, with a growing number of Ministries actively involved in the shaping of the new structure of responsibilities and financing. Among the most active of those is the Ministry of Education and Science, which has adopted an Education Decentralization Strategy (see MOES 2004). MOES is preparing to make the first, careful step towards decentralization of education.

Accordingly, our report is structured to reflect the current situation of complete centralization, as well as serious preparations to begin decentralization, which are already under way. In Part 1 of the report, we analyze the financing of the current centralized system, with special emphasis not only on the normative budgeting procedures, but on the equity and efficiency of the Macedonian education system. In Part 2 we review the preparations for decentralization, and discuss how MOES plans to manage and finance decentralized education.

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## **1. Management and financing of centralized education system**

The extreme nature of education centralization in Macedonia was illustrated with some examples in the Introduction. The primary sectoral motivation to centralize was to control spending, especially the spending on salaries, in the period of fiscal constraints. A system of allocation norms for employees and for material expenditures (see Section 1.A), meant in part to ensure a basic level of equity of school funding, has in some measure succeeded, although the achievements in this area are mixed (see Section 1.B). However, at the same time it blocked any local initiatives in the system, while the Ministry was unable, despite its considerable powers in the sector, to ensure efficiency and equity (see sections 1.B and 1.C). In particular, the Ministry was not able to react to growing tensions and to shifting demographic patterns. The many small schools in rural communities continue to provide deficient education at a very high unit cost, while vocational schools are under-invested and still tuned to traditional Macedonian industries which have collapsed or altogether disappeared since independence.

## A. Overview of Macedonian education

We begin with a short preview of the main indicators over the past years, such as number of schools, students, classes, expenditures, average cost per student, average cost per class.

Table 1 provides basic indicators for primary education, where we have included only the regular primary schools<sup>1</sup> (this approach is chosen because there are large variations in financing of different types of schools).

	School year				
	1999/2000	2000/01	2001/02	2002/03	2003/04
Number of schools	342	342	342	343	344
Students	254.828	248.469	244.211	238.050	232.143
Classes	10.328	10.097	10.065	10.036	9.940
Teachers	12.562	12.240	11.968	12.277	12.351
Expenditures	4.098.829.790	4.091.082.203	4.023.339.026	4.446.298.723	4.768.792.293
Average cost per student	16.085	16.465	16.475	18.678	20.542
Average cost per class	396.866	405.178	399.736	443.035	479.758
Class size	24,6	24,6	24,3	23,7	23,3
Student teacher ratio	20,3	20,3	20,4	19,4	18,8

Between 1999 and 2003, the number of students of primary school decreased by about 8.9%. This was accompanied by a decrease of the number of classes by 3.7% and of teachers by 0.6%. It seems that Macedonian education was not able to adjust the teaching force to the decreasing student population, and the student teacher ratio decreased by 7.3%. At the same time the size of classes went down by about 5.2%.

Between the school years 2001/02 and 2003/04 the average *cost per class* increases from 399,736 to 479,759 denars, an increase of 20%. This is due to an increase of 19% of UNR in 2002 (see section on financing). In the same time, the *average cost per student* increases from 16,475 to 20,542 denars, an increase of 25%. This is higher because during that time the average class size decrease by about 3%.

Table 2 presents the main indicators for secondary education. Here from the total of 91 secondary schools in Macedonia of different types<sup>2</sup>, we have selected 81 schools regular schools (gymnasia, vocational and mixed). Here due to lack of data we can present only the data for two consecutive school years.

Table nr.2 Secondary education finance

Only regular schools included	School Year	
	2002/03	2003/04
Number of schools	81	81
Students	92,553	93,267
Classes	2945	2982
Expenditures	1,702,082,524	1,828,395,328
Average cost per student	18,390	19,604
Average cost per class	577,957	613,144

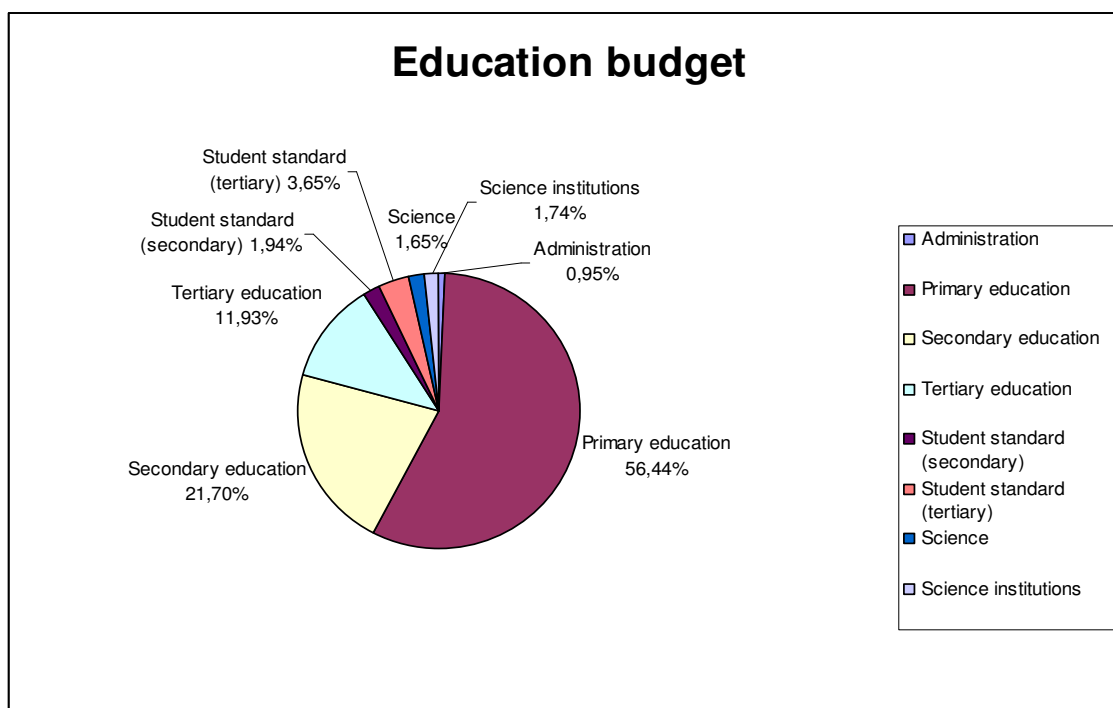
<sup>1</sup> There are 5 types of primary schools: regular, musical, special, for adults and elementary vocational schools for adults.

<sup>2</sup> In secondary education there are 5 types of schools: gymnasium, vocational, mixed (gymnasium and vocational), musical, special.

As we can see from Table 2, the average cost per student in 2003/04 were 19.604 denars and the average cost per class were 612.144 denars. This is somewhat lower than the average for primary schools, because the above tables include the budget funds only. Since the own revenues of schools account for about 18.9% of total secondary school budgets (see section on financing), we obtain that in Macedonia per student expenditures in secondary education, similarly to OECD countries, are about 20% higher than in primary education.

## B. Financing procedures

Republic of Macedonia has a highly centralized system of education financing. Education budget (in Fiscal Year 2003) represents 16% of the State budget and 3.6 % of GDP (for historical data see Appendix 1). Budget funds allocation by current budgetary classification is the following:



Current sources of education financing are:

- Budget
- Income from institutions (rent of premises)
- Own income<sup>3</sup>
- Grants and donations

The main source of education financing is the education Budget (95% in primary and 80% in secondary education). Extra budgetary recourses are used to compensate very limited level of budget allocations, especially for maintenance.

Table1: Structure of expenditure in primary and secondary education by sources (2003)

<sup>3</sup> Includes: voluntary yearly fee (called participation fee) paid by students at the beginning of the school year, and income from selling of good and services.

<b>Level</b>	<b>Budget</b>	<b>Income from institutions</b>	<b>Self financing</b>	<b>Grants</b>
Primary	94,34%	0.36%	5.18%	0.12%
Secondary	79.65%	1.05%	18.92%	0.38%

It must be stressed that every school must prepare a separate financial plan for each of those four revenue streams. Schools have separate accounts for each source of income and are not allowed to transfer money from one to other account without the permission from the Ministry.

Ministry of Education and Science has central role in the whole process of budgeting and execution of education funds. According to instructions given by the Ministry of Finance, it prepares financial plans for individual school. In order to do this MOES must reconcile the overall insufficient allocation provided by the Ministry of Finance in the budget law with the detailed norms and criteria for staffing levels, for good and services (maintenance), for so called *transfers* (transportation and accommodation of students ), and for capital investments. Those norms and criteria are approved by the Ministry itself, and usually cannot be satisfied with the funds provided in the budget law. When the funds are insufficient, MOES protects the salaries part of the budgets, and then the heating expenditures. During the execution of the budgets, the Ministry of Finance approves transfers by budget lines monthly and controls the spending of money.

About 85% – 90% of education budget is spent on salaries, 8% on goods and services, 4% on student transport and 2% on investments.

Table2: Structure of expenditure by budget categories (2003)

<b>Budget line</b>	<b>Primary education</b>	<b>Secondary education</b>
Salaries	85,68%	89,60%
Goods and services (maintenance)	7,85%	8,16%
Transfers (student transport and accommodation)	4,25%	0,00%
Capital investments	2,23%	2,24%
Total	100,00%	100,00%

The criteria for allocation of funds of each category are different and will be described separately.

## **2. Staff salaries**

The salaries part of the budgets of Macedonia schools is calculated in two steps, on the basis of two sets of norms. The first set of norms defines the employment level for each school, controlled directly by the Ministry. The second step consists in calculating the salaries of teachers and of non teaching staff. We discuss those procedures also in the same order.

The number of teaching positions is determined on the basis of the programmatic standards (teaching plans for every grade in every type of school, established by the Bureau for Development of Education). The Ministry also uses class size norms, namely 25 to 34 students per class (smaller classes may be formed only with the Ministry's approval), for both the primary

and secondary schools. Every school year, for every school and every grade, the Ministry monitors the division of students into classes, intervening if they are too small.

The number of classes is then used to allocate teaching positions for each school. For each school, the total required teaching time (expressed as number of lessons per week) is added for all classes, and divided by 20, that is the weekly teaching load of the teacher, to yield the number of teaching positions. Even fully employed teachers will be paid only for the classes they actually teach each year.

The teachers are employed in the school by the director, after a selection process, in which also the School Board participates. After one year, a new teacher has to pass an exam. The teacher may be employed for a fixed time (usually for one year, extended yearly), or for an indeterminate period.

A separate set of norms governs the employment of non-teaching staff. The following table summarizes the main elements of those norms for primary schools:

Position	Criteria
Director	One per school which is a legal entity
Deputy director	For schools with over 24 classes
Pedagogue	Up to 24 classes one, above 24 classes two
Administrator	The same
Librarian	Up to 24 classes one half, above 24 classes one
Cleaning staff	Depending on the school area, number of shifts and type of heating
Maintenance staff	One guardian, one technical administrator, one heating operator, plus additional staff for the satellite schools

Determination of salaries is based on specific criteria that include the following elements:

1. Education level of staff
2. Work experience (years of employment)
3. Managing position
4. Special conditions (joined grades teaching, special classes)
5. Work in mountains and places near border
6. Pedagogic titles<sup>4</sup>

Basic unit for calculation of salaries is UNR (normative unqualified employee). Between 1992 (when the system was introduced) and 1994 the value of UNR was changed every year according to inflation. Between 1994 and 2002 the value of UNR was frozen at 3,370 denars. In 2002 the UNR was increased 19% to the present value of 4,000 denars.

The main element of calculating the salaries is the coefficient for employee education level<sup>5</sup>. The following table provides those coefficients for primary and secondary schools:

Education level	M-r	VSP	VSS	SSS	NSS	VKV	KV	PKV	NKV
Primary	3.00	2.8	2.4	1.8	1.265	1.8	1.7	1.265	1.265
Secondary	3.05	3.0	2.3	1.7	1.265	2.3	1.7	1.265	1.265

<sup>4</sup> There are two titles for teachers given by school commission: exemplary and special exemplary

<sup>5</sup> Explanation: M-r and VSP – university degree; VSS - post secondary degree; SSS, VKV, KV - secondary school; PKV, NKV primary school.

Additionally, for each year of experience teacher gets 0.5% wage increase. The school director receives supplementary pay of 1.12 UNR, there are also other coefficients for the deputy director, the pedagogue etc.

Here is an example of teacher salary calculation, for a primary school teacher with 20 years experience, university training (VSP), and full teaching load of 20 lessons per week. The value of UNR is multiplied by coefficient 2.8 (highly educated) to get net salary of 11.200 denars. Moreover there is a supplement of 10% due to 20 years of service, that is 1.120 denars. Those who work in special conditions get additionally 14% – 30% of UNR, for working in mountains 12% – 48% of UNR and for pedagogic title 6% – 14% of UNR. Together with all legal contributions such as health insurance, pension, taxes etc, average gross teacher salary in primary education is 20.650 denars<sup>6</sup>. Distribution of salaries is not linked to real teacher performance.

Technical and administrative staff in primary education receive on average 7.000-8.000 denars net or 11.700 -13.440 denars gross salary per month. Lowest net salary allowed by the law is 5.060 denars per month.

Secondary education teacher with university education (VSP) uses coefficient 3 and has average monthly salary of 17.560 denars net (22.125 denars gross). Technical staff average monthly salary in secondary education is 7.500-10.000 denars net or 12.600-16.800 denars gross.

Every month schools are obliged to submit list of staff and calculation of staff salaries to the Ministry of Education and Science. After checking all the data, Ministry of Education and Science submits total calculation of net and gross salaries for all schools to the Ministry of Finance for approval and after that, these funds are disposable at school's treasure account. This complex control mechanism was introduced a few years ago on the advice of the IMF.

This complicated system of salaries has been in operation in Macedonia since the 1992. The specific feature of the system is a large number of numerical coefficients, which have not changed since then. Of all the coefficients used, the main ones relate to education level of the staff (provided in the table above). The work experience receives very low weight, and therefore the teacher salaries do not change much during the professional career. The school director receives about 40% more than an average teacher. The main change introduced in recent times into the system was the increase of UNR. In the last 11 years, the value of UNR was changed only once, in 2002.

### **2.1.2 Goods and services**

Funds for maintenance (good and services) should be planned and allocated according to criteria prepared by the units for planning and approved by the Minister of Education and Science. However, because of the restrictive budget policy, there is not enough money to cover the real needs of schools and problems with debts arise every year. Previous year spending is also taken into account during the process of planning.

In primary education, electricity, water, taxes, city rent and communal expenses are fully paid monthly after reception of the invoices by the schools. In secondary education, Ministry covers only part of the expenses using criteria such as space, classes, and the rest is covered by the school own incomes (on average around 20%).

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<sup>6</sup> 1 USD=50den; 1 EUR=62den

Heating costs are planned and paid according to the school space (square meters), number of shifts (1, 1.5, 2, 2.5 or 3<sup>7</sup>), type of heating (wood, oil, coal, central heating) and current prices. , The allocation is based on norms defined and maintained by MOES, and those norms do not depend on key factors which in reality influence the heating costs, such as the quality of windows and the control over keeping the windows closed. The norms are often defined in kind (litres of heating oil, cubic meters of wood).

Other costs: telephone, post, office supplies, teaching materials, tools, cleaning materials etc. are allocated to schools on the basis of the number of classes.

### **2.1.3 Transfers (Student transport and accommodation)**

Transport is organized only for primary school students, for those students who live more than 2 km far away from school.

Schools select transportation company (the best offer in the tender organized by the school), and sign the contracts. Every month they submit to the Ministry the number of students transported, distance and transport costs, on the basis of invoices received. The Ministry pays those invoices. On average 20.000 students are transported every month. The costs depend on the distance, but average costs are 1.000 denars per student monthly.

Moreover, there are 14 dormitories in primary education. On average, 300 students are accommodated every school year. About 200 students use dormitories, while about 100 students are accommodated in households (with families taking care of them). For student accommodation Ministry of Education pays 3.000 denars per student monthly.

### **2.1.4. Students standard (secondary)**

Student standard in secondary education is a separate programme in the Education Budget. It includes transfers for student accommodation, regular medical checkups, equipment and reconstruction of dormitories, and scholarships for talented students. The structure of student standard (secondary) allocation is shown below.

#### **Student standard budget**

Accommodation	74.28%
Medical checkups	1.63%
Equipment	1.23%
Reconstruction	5.48%
Scholarship for talented students	17.38%

Ministry pays only one half of the costs for student accommodation or 4,080 denars monthly per student. The other half is paid by the students. All interested students can find a place in the dormitory, since the number of places is much higher than the demand.

There are 25 dormitories in secondary education. About 2,500 students are accommodated every year. Scholarship (grant) for talented student is 2,000 denars per month (for 9 months). About 500 scholarships are given every year.

<sup>7</sup> The criteria provide detailed definitions of what it means for the school to have 1.5 or 2.5 shifts.

### **2.1.4 Capital investments**

Allocation of capital investment funds is done according to a special program, approved by the Minister of Education and Science. Due to the restrictive Budget there is not enough funds to invest in every school, therefore only priority cases are included in this program. Resources from external grants (donations) are mostly used for capital expenses, especially for school equipment, computers, furniture etc.

### **C. Problems of external efficiency**

The description of financing procedures highlights some serious problems of external efficiency of Macedonian education. There are no in-built mechanisms which control the spending of the schools. Since the effort to save can only be made at the local level, but the savings accrue at the central level, the schools do not cooperate with the Ministry in this respect. For instance, if the schools manages to use less heating oil than prescribed by the norms (see 2.1.2 above), the Ministry will just need to pay less. If the school uses more heating oil than planned, MOES will cover the bill.

The lack of incentive to improve efficiency is also seen in the large number of expenditure items which are paid by MOES based on received invoices. The schools have no interest in for instance shutting all electrical equipment to decrease electricity costs.

The main non salary expenditure item is heating, and it is here that the lack of efficiency mechanisms can be most dramatically seen. The allocation of funds is based on the surface of heated space, and therefore the school has no interest to reduce this space when the student numbers are decreasing. Over years, this has led to some very inefficient use of school space, with very large rural schools serving a handful of students (see E below).

The situation is slightly better with the secondary schools, which do pay a proportion of maintenance costs (about 20%, see 2.1.2 above) in a sort of co-financing scheme. This makes the schools more sensitive to efficiency issues.

### **D. Internal efficiency of Macedonian education**

The discussion of internal efficiency of education system, that is of how efficient the system is in keeping the students in the schools once enrolled, is always difficult because it requires careful analysis of what happens to the student cohort over years. In case of Macedonian education we are able to make some estimates for the primary education for the whole country, and also broken by the instruction language for two main ethnic communities, the Macedonian and the Albanians. This approach allows us to disregard problems of students changing school. For this analysis we use student numbers broken by grade, presented in Appendix 5.

As can be seen from those tables, every school year the total number of primary students decreases. There are three main reasons for that: demographic changes (birthrate decrease, as seen from the decrease of enrollment in grade 1<sup>8</sup>), the drop out of students during the school year, and emigration (due primarily to difficult economic situation). The second and third reason affect the decrease of student numbers from one school year to another, when successive grades are considered. However, it is impossible to distinguish between those two mechanism, due to lack of

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<sup>8</sup> It is estimated that scholarization rate in grade 1 of primary schools is about 95%, and is steadily increasing.

data. Therefore in what follows we treat both types of students disappearing from the school as drop-out, thus our data overestimate the drop-out rate (and under-estimate the internal efficiency of Macedonian primary education). The repeat rate in primary education is very low and is not taken into account due to lack of data.

Overall drop out rate for primary education is about 1.46%. According to the teaching language, drop out rate for Macedonian pupils is 1.11%, whereas for Albanian students it is higher, 1.81%. It is an important open question whether this is due to more Albanian students abandoning school for social and economic reasons, or to higher emigration among the Albanian population.

The following table follows a cohort of students from first, second and third grade in the school year 1999/2000 to the school year 2004/2005, for Albanian instruction language<sup>9</sup>. Below the yearly dropout rates are provided for each of the three groups of students. Cumulative dropout rates are provided in right-most column.

Albanian teaching language

Gr.	99/00	Gr.	00/01	Gr.	01/02	Gr.	02/03	Gr.	03/04	Gr.	04/05	
1	10.265	2	10.183	3	10.025	4	9.826	5	9.708	6	9.580	7,15%
2	10.479	3	10.482	4	10.227	5	9.878	6	9.843	7	9.671	8,35%
3	9.861	4	9.919	5	9.641	6	9.341	7	9.210	8	9.012	9,42%
			0,80%		1,55%		1,99%		1,20%		1,32%	
			-0,03%		2,43%		3,41%		0,35%		1,75%	
			-0,59%		2,80%		3,11%		1,40%		2,15%	

The data for the school year 2000/2001 represent an anomaly, which is an increase in the cohort size. This is due to the special conditions during the conflict, probably to a temporary immigration of Albanian students from Kosovo. The data suggest that the drop-out rates is higher for higher grades. The cumulative dropout rates after 6 years of over 7% are very worrying.

The following table present the dropout phenomenon in a different way. For each school year, we provide the number of students from grades 1 to 7 in the previous year (meaning those who should continue to attend school in the current year), as well as the number of student attending the grades 2 till 8 in the current year (those who have continued to attend from the previous school year). The average of those five yearly drop-out rates is equal 1.81%. This must be considered a very high drop-out rate, which should be addressed by the Ministry.

	00/01	01/02	02/03	03/04	04/05
students 1-7 (previous year)	68.848	69.464	68.268	67.428	67.423
students 2-8 (current year)	67.922	67.331	66.668	67.106	66.211
difference	926	2.133	1.600	322	1.212
% dropout	1,34%	3,07%	2,34%	0,48%	1,80%

The same data for the students learning in Macedonian are provided in the two tables below. The average yearly drop out rates from the second of those tables is equal to 1.11%, a much lower but still very worrying figure.

Macedonian teaching language

Gr.	99/00	Gr.	00/01	Gr.	01/02	Gr.	02/03	Gr.	03/04	Gr.	04/05	
1	19.593	2	19.125	3	19.106	4	18.988	5	19.190	6	18.752	4,48%

<sup>9</sup> Data were taken from the tables in Appendix 5.

2	20.521	3	20.013	4	20.057	5	20.147	6	19.655	7	19.395	5,81%
3	20.647	4	20.211	5	20.560	6	20.017	7	19.874	8	19.534	5,70%

2,39%	0,10%	0,62%	-1,06%	2,28%
2,48%	-0,22%	-0,45%	2,44%	1,32%
2,11%	-1,73%	2,64%	0,71%	1,71%

	00/01	01/02	02/03	03/04	04/05
students 1-7 (previous year)	148.579	142.616	138.674	133.736	129.338
students 2-8 (next year)	145.132	141.869	136.928	132.579	128.608
difference	3.447	747	1.746	1.157	730
% dropout	2,32%	0,52%	1,26%	0,87%	0,56%

Unfortunately, we have much less data for the secondary schools, see Appendix 5. The transfer rate from primary to secondary education is 86%. Total number of students increased by 1% last year. Dropout rate in secondary education is about 5%, much higher than in primary education. This shows that Macedonian secondary schools have lower internal efficiency than the primary schools.

### E. Equity issues in Macedonian education

We concentrate first on the primary education. There are two dimensions of equity which we consider: ethnic dimension and the urban – rural dimension. For the ethnic dimension, we take into account two dominant ethnic communities in the Republic of Macedonia, Macedonian and Albanians. We divide the 84 existing municipalities into five classes: those where over 95% of students learn in Macedonian, those with between 70% and 95% of students learning in Macedonian, analogously for the Albanian instruction language, and the mixed municipalities, without a dominant ethnic community.

For the second dimension, we divide the municipalities into four categories: the capital Skopje, large cities (municipality including a city of over 50 thousand inhabitants), small cities, and rural municipalities (which do not include any city). This gives us together 17 groups of municipalities (there are no municipalities satisfying three possible combinations of categories).

We discuss groups of municipalities rather than groups of schools because there are very large differences between individual schools due to historical reasons, and also because we are already considering the equity problems from the point of view of decentralization, that is we look at equity between municipalities.

The following table provides the basic characteristics of school systems in the municipalities divided along those two dimensions.

Type of municipality	Data	>95% Macedonian	70%-95% Macedonian	Mixed	70%-95% Albanian	>95% Albanian	Macedonia
Skopje	Municipalities	2	3	3	1	1	10
	Students	11,060	18,382	19,922	536	4,897	54,797
	School size	553	511	866	268	288	559
	Class size	27.3	26.0	26.9	23.3	23.2	26.24
Big Cities	Municipalities	2	2	1	1		6
	Students	17,078	11,746	13,122	12,333		54,279
	School size	213	286	345	561		300
	Class size	23.2	23.7	24.9	27.0		24.52
Small Cities	Municipalities	18	6	3			27
	Students	32,786	16,813	22,924			72,523
	School size	166	172	314			197
	Class size	21.9	22.4	23.6			22.54
Rural	Municipalities	16	9	7	3	6	41
	Students	8,452	7,438	9,101	8,457	17,096	50,544
	School size	85	80	92	313	219	128
	Class size	18.3	18.8	19.0	23.4	23.6	20.89
Macedonia	Municipalities	38.00	20.00	14.00	5.00	7.00	84
	Students	69,376	54,379	65,069	21,326	21,993	232,143
	School size	175	203	279	418	232	223
	Class size	22.39	23.17	23.92	25.39	23.55	23.35

The most interesting elements of this table are the school sizes and class sizes. We note that both of them decrease along the Skopje-urban-rural dimension. The behaviour along the ethnic dimension is more complicated. We note that rural predominantly Albanian municipalities have school networks similar to those in urban predominantly Macedonian ones (except for Skopje). On the other hand, rural predominantly Macedonian communities do have very small schools with very small classes. This implies, among others, that it is not possible to use the rural schools as a factor in the allocation of education block grants.

The full school expenditures per student are presented in the following table.

Type of municipality	Data	>95% macedonian	70%-95% macedonian	Mixed	70%-95% Albanian	>95% Albanian	Macedonia
Skopje	Municipalities	2	3	3	1	1	10
	Class size	27.3	26.0	26.9	23.3	23.2	26.2
	Cost per student	18,806	19,005	17,372	22,098	20,415	18,527
Big Cities	Municipalities	2	2	1	1		6
	Class size	23.2	23.7	24.9	27.0		24.5
	Cost per student	20,752	21,514	18,364	16,117		19,286
Small cities	Municipalities	18	6	3			27
	Class size	21.9	22.4	23.6			22.5
	Cost per student	23,067	21,545	18,501			21,271
Rural	Municipalities	16	9	7	3	6	41
	Class size	18.3	18.8	19.0	23.4	23.6	20.9
	Cost per student	27,573	27,516	26,564	17,977	18,317	22,647
Macedonia	Municipalities	38	20	14	5	7	84
	Class size	22.4	23.2	23.9	25.4	23.5	23.4
	Cost per student	22,366	21,496	19,255	17,005	18,784	20,459

The average per student expenditure for primary school in Macedonia in 2003 was 20,459 denars. However, the range at the municipality level is from 16, 117 in large cities predominantly Albanian municipality (Tetovo) to 27,573 in rural predominantly Macedonian municipalities. This variation is matched by the class sizes in those municipalities: 27 students per class in Tetovo, and 18.3 students in the rural Macedonian municipalities. The per student expenditures also increase along the Skopje-urban-rural dimension. We have already noted that the rural Albanian communities have school networks with urban characteristics. Accordingly, per student spending there is smaller than in rural Macedonian ones.

The final table presents disparities in heated space per student, cost of heating per student and full maintenance<sup>10</sup> costs per student.

Type of municipality	Data	>95% macedonian	70%-95% macedonian	Mixed	70%-95% Albanian	>95% Albanian	Macedonia
Skopje	Municipalities	2	3	3	1	1	10
	Heated space for student	5.54	5.42	4.41	2.65	2.77	4.81
	Heating cost per student	1,362	1,974	1,588	1,000	760	1,592
	Maintenance per student	5,057	3,980	3,199	2,388	1,042	3,635
Big Cities	Municipalities	2	2	1	1		6
	Heated space for student	4.13	4.58	3.37	2.04		3.57
	Heating cost per student	1,086	1,321	878	694		997
	Maintenance per student	2,210	3,863	1,210	857		2,018
Small cities	Municipalities	18	6	3			27
	Heated space for student	5.39	3.22	2.94			4.11
	Heating cost per student	1,311	1,245	804			1,136
	Maintenance per student	2,504	1,309	1,035			1,763
Rural	Municipalities	16	9	7	3	6	41
	Heated space for student	4.28	4.40	4.00	2.39	2.03	3.17
	Heating cost per student	1,114	1,211	964	721	568	851
	Maintenance per student	2,076	1,705	1,424	753	612	1,188
Macedonia	Municipalities	38	20	14	5	7	84
	Heated space for student	4.97	4.42	3.63	2.19	2.20	3.95
	Heating cost per student	1,240	1,503	1,081	712	611	1,149
	Maintenance per student	2,786	2,818	1,787	854	708	2,139

As the years since independence were marked by economic stagnation and rapid demographic shifts, the country could not afford the much needed investment in education. Thus the school infrastructure could not keep up with the rapidly changing demography of student population. Thus we see that the space per student in Macedonian municipalities is significantly higher than in Albanian communities (more than double difference). This means that many more Albanian students attend second shift.

The financial norms allocate the funds for heating based on the heated space, as well as the number of shifts (see section on financing). Therefore the heating costs per student are also very different in different municipalities. Also the maintenance costs per student reveal great disparities, much higher than disparities in total per student spending (see table above).

As discussed in section on the phases of decentralization, during the first phase only the responsibility for maintenance will be transferred to municipalities. The table above shows that using a per student formula it will be much more difficult to finance maintenance than to finance full education budgets. The Ministry will need to use strong buffer mechanisms of a long transition period to achieve some equalization of per student maintenance costs, because this

<sup>10</sup> This includes energy (electricity, heating), water, communal services, materials, small repairs, telephones etc.

cannot be achieved without some capital investments in some areas, and school restructuring in others.

## **2. Decentralization framework following Ohrid Agreement**

The Ohrid Agreement, signed on , calls for wide ranging decentralization of public governance in the Republic of Macedonia. The implementation of this agenda was begun with the adoption of the Law on Local Governments (LLG) in 2002. Significant responsibilities for many sectors were allocated to local governments, including in education, but the government was slow in adopting other laws governing decentralization, in part because some of them posed real challenges. Thus following some delay, the Government of Macedonia begun enacting other new laws, as well as amendments to existing laws, setting out in greater detail the decentralization plan. Here we need to mention the Law on Local Government Finance (LLGF), passed in October 2004, and the amendments to the Law on Primary Education (LPE) and the Law on Secondary Education (LSE), passed in September 2004. The final law important for education was the Law on territorial Division of Macedonia, passed in November 2004. That law redefined the municipal boundaries and reduced their number from 124 to 85. Those laws form the basic legal framework of education decentralization in Macedonia.

In Section 2.A we discuss the implications of LLGF and of its specific provisions defining the phases of fiscal decentralization for the education sector. In Section 2.B we review how education adapted to this overall decentralization framework. Internal institutional preparations for education decentralization undertaken by the Ministry are subject of Section 2.C. In the last section we discuss some urgent open issues facing the Ministry prior to the beginning of decentralization process.

### **A. Character and phases of fiscal decentralization**

The Law on Local Governments clearly prescribes to municipalities an important role in the education sector. Art. 22 lists the activities, for the performance of which the municipalities will be responsible. Item 8 of this list defines activities for education: “establishing, financing and administering of primary and secondary schools, in cooperation with the central government, in accordance with law; organizing of transportation of students and their accommodation in dormitories.” As Levitas (2002) points out, this is a broad language and it is the task of MOES to define in practical, legal terms the meaning of those responsibilities, and the manner in which they will be transferred to municipalities.

The Law of Local Government Finance adopted in 2004 defines a clear framework for the finances of local governments in Macedonia. In Art. 4 and 8 it lists the revenues of local governments as:

1. Own revenues, including:
  - a. Local taxes (property, on the transfer of property, on inheritance etc.),
  - b. Local fees (for placing signs and announcements, for using roads, tourist fees, for usage of public illumination, for environment protection etc.),
  - c. Local charges (for urbanization of land, for utilization of assets etc.),
2. Grants from the budget of the Republic of Macedonia and from the Funds:
  - a. Income from the personal income tax,
  - b. Income from VAT,
  - c. Block grants (for financing basic municipal competencies listed in Art. 22 of LLG, that is including education, must be based on a formula using need indicators),

- d. Categorical grants (for financing of specific activities),
- e. Capital grants (for financing investments),
- f. Grants for delegated competencies (for financing a function delegated by a central administration to a municipality).

Moreover the LLGF calls for establishing of an Ordinance on the Methodology of Allocation of Block Grants to municipalities, with formulas for the allocation of block grants. Thus it is clear that education responsibilities of municipalities should be financed through a block grant, calculated for each local government using a formula based on indicators of need. There can be little doubt that the main of those indicators will be the number of students of schools of various type and level.

LLGF in Art. 44 and 45 also defines the two separate phases of fiscal decentralization. During Phase I, transferred responsibilities will be financed through categorical grants, with the exclusion of salaries. The starting date of the first phase was planned for January 1, 2005, but had to be postponed due to controversies over the new territorial division and to the postponement of the new local elections (initially planned for November, now scheduled for March). The current start date is July 1, 2005. The full budgetary responsibility including the salaries will be passed to the municipalities in the second phase, at least three years later. The law also includes some conditions which must be met before the start of the first phase (for all municipalities together) and of the second phase (for each municipality separately). The division of the process into two phases and the conditionalities on beginning each phase were suggested by the International Monetary Fund, and are motivated by the fear that poor fiscal management by the municipalities may contribute to excessive budget deficit.

It thus appears that during phase I, only the responsibilities for maintenance, repairs and material expenditures may be transferred to the municipalities. A fragmentation of school budgets becomes unavoidable, with the major part (about 90% on average, see section 1.C) provided by MOES to every school in the same manner as it does now, and the remaining parts provided by the municipalities.

## **B. Management and financing of decentralized education**

The amendments to the laws on primary and on secondary education provide the detailed specification of the general transfer of responsibility on “establishing, financing and administering of primary and secondary schools” to municipalities, as dictated by LLG. The laws redesign the role of the school board, by allocating it very significant powers, including the authority to select and dismiss the school director, to set the school budget, and to adopt the school statute. The selected candidate will be appointed by the mayor, in accordance with LLG. Parents are assured 1/3 of the places on the School Board, and the local governments about the same (other places will be filled in by the school employees). The school director, depending on the School Board with which he or she will work very closely, becomes thus a much stronger function, and what’s even more important a much more stable function. Hopefully, the practice of very frequent changes of the school director for transient political reasons will be stopped.

The new laws also foresee the introduction of a system of licensing of school directors. This is a welcome step towards better professional preparation of managing cadres in Macedonian schools, but the new system is not yet clearly defined. What is worrying is that the laws mandate the almost immediate introduction of the new system (within less than two years), while the

experience of more developed countries (such as national Headship Qualifications in the United Kingdom) shows that a transition period of 5 years or more is very useful.

The key responsibility of the *founding organ*, or in other words of the owner, of the school, is assigned to municipalities (with the exception of special and artistic schools). The *founding rights* also include the ownership of the school property and the right to open and close schools, although the latter actions require prior approval of MOES. The transfer of property ownership to new school founder is especially complicated because the legal status of many of those properties is not clarified.

Nevertheless, the new laws take into account the phasing of fiscal decentralization, as defined by the Law on Local Government Finance. The main provisions regarding the founders and the school boards come into force with the beginning of Phase I. The laws formulate the basic principles of financing of education (use of the per student formula), but do not provide details as to how this may be translated into a numerical formula.

The Ministry of Education in its Education Decentralization Strategy (see MOES 2004) planned to transfer to municipalities in the first phase, together with the responsibility for maintenance, also of the responsibility for the salaries of the technical staff (cleaners, night guards, gardeners, drivers, operators of the heating systems and similar). Such a move would partially break the fragmentation of education finance, by linking the maintenance functions with the salaries of people responsible for carrying those functions out. Moreover, as seen from the analysis of section 1.B, it is the variation of technical staff between the schools and between the municipalities which is one of most difficult equity issues in Macedonian education. MOES entered into negotiations with the Ministry of Finance over this provision of LLGF, which is in contradiction with MOES decentralization strategy, but without success.

The amended laws on education also allocate to municipalities the responsibility for organizing the transportation of students to schools, in line with Art. 22 of LLG. However, the municipalities may delegate this responsibility to schools, and thus decide to continue the present system of schools organizing themselves the transportation tenders.

The exact nature of the new financing system is still debated in Macedonia, so it cannot be described here (the authors of the present report take active part in those internal discussions). What can be presented are the main issues under discussion. As described in the previous section, the decentralization is planned to begin on July 1<sup>st</sup>, in the middle of the fiscal year. This imposes rather special difficulties of planning the new financing mechanisms, and in particular calls for a transition, half-year period until the end of 2005. We therefore first review the discussions concerning the financing of education in the second half of the current year, then turn to the proposals concerning the first phase, and finally to the initial thinking concerning the second phase of fiscal decentralization.

For **the transition period** until the end of fiscal year 2005, it is assumed that it is not preferable to use a per student formula to allocate the education funds to municipalities, because the maintenance budgets of schools have been already approved, are in the middle of being executed, and in order to assure stability they should not be changed now. Therefore the Ministry is thinking of using those plans as a basis for allocation of categorical grants, on the assumption that this will not lead to a contradiction with the newly amended education laws. The main difficulty with this plan is that education institutions regularly run end of year deficits, which are paid of with the new years allocation. This in turn leads to new debts accumulating during the current

fiscal year. When the decentralization step is to be taken, MOES should attempt to clean the debt situation and transfer to municipalities the responsibility for current expenditures, not for paying old debts. Two difficult problems appear: how to assess the level of debt to be paid off, and how to find the funds to pay off this debt. The Ministry is engaged in serious internal effort as well as in discussions with the Ministry of finance to resolve those problems.

For **the first phase** of education decentralization, the Ministry is preparing a per student allocation formula to municipalities. A number of factors were considered for use in the formula and rejected, such as the rural school students (because some rural communities are very large and have city-like structure of school networks). The main objective indicator which seems compatible with the historical allocation patterns is population density. The Ministry is conducting detailed analysis of possible weights and of their implications for different municipalities. The setting of budgets of individual schools will be the responsibility of municipalities, closely monitored by the Ministry.

For the **second phase**, the allocation formula will almost certainly have to change, because the present distribution patterns of maintenance expenditures and of full school expenditures are quite different. However the Ministry will be able to use the experience gained during the first phase and to adjust its formula approach accordingly.

Finally we return to the issues of external efficiency of the education system in Macedonia, discussed above in the context of centralized system (part I.C). There are two ways in which decentralization can contribute to introducing efficiency mechanisms:

1. Local governments, closely monitoring the expenditures of their schools, will be able to assess the impact on investment in better windows and roofs on heating expenses, and will therefore be able to lower the current costs through good investment and maintenance of schools.
2. The allocation formula will be based primarily on the student numbers, and this will put pressure on the local governments to adjust the school network to the demographic shifts.

### **C. Preparations of the Ministry**

The Ministry is carefully preparing for the first phase of decentralization. About two years ago an Analytical Unit was set up within the Ministry to gather for the first time all enrolment and financial data about all Macedonian schools, primary and secondary. The Unit begun to producing reviews and analyses, as well as supporting the activities of other sectors of MOES.

MOES is preparing for the technical and legal work necessary to transfer ownership of school facilities to municipalities. Here some compromise must be found between the desire to transfer the ownership as soon as possible, and the necessity to clarify the ownership status of the properties.

Following the adoption of the laws, MOES is preparing a series of bylaws and ordinances to define the practical steps and procedures necessary to manage the decentralized education. The main open and difficult issue here is how to define the responsibilities of municipalities with respect to their schools in the sphere of maintenance. At present, many of the norms and prescriptions concerning the school equipment are not met in the schools. Keeping in place the unrealistically high requirements which will be hard to meet will show the municipalities that their legal obligations may be broken. On the other hand, relaxing those requirements and making them more easy to meet risks the accusation that Macedonia is taking a step back from higher

education standards. Finally, it is not clear what legal mechanisms are needed to enforce the standards defined in the ordinances passed by the Ministry.

A new per student allocation formula to define the block grants to municipalities is being prepared, simulated, and discussed within the Ministry. The Analytical Unit has prepared a computer tool to perform those simulations and to analyze the impact of various allocation scenarios. The simulations are also presented to other Ministries,

#### **D. Open problems**

Despite the fact that Macedonia adopted a carefully prepared set of legal laws, and that the Ministry of Education made some significant internal preparations for decentralization, there remain significant open problems, which MOES should address in the near future. We list only the most pressing of them:

1. No significant work on raising education management capacities of the municipalities is foreseen yet. With the new local elections expected to bring many changes in the composition of local councils, it may be feared that new local leaders will lack the experience and the understanding of the complex problems they will have to face in the education sphere.
2. Analogous problem appears for the new members of the school boards. They will have much wider responsibilities and tasks. The long and rich history of strong school boards in Macedonia suffered a 15 year break, and it is not at all clear that the people with the experience and the skills will be selected to the school boards. Moreover those may have been somewhat different skills, given the very different political and economic context of managing schools in Socialist Yugoslavia and now. The Ministry will distribute to the school boards a specially written guidebook for their members, but it is doubtful that this will be enough.
3. The rationalization of rural schools will be the first task of municipalities. This is a very difficult problem for many reasons, and any bitter local conflicts may threaten public acceptance of decentralization. The sharing of responsibility for schools between municipalities (maintenance) and the Ministry (salaries) will make the resolution of those conflicts even more difficult. MOES is not yet prepared to provide the municipalities with sufficient help and advice in this area.
4. The municipalities will also become the founders of the secondary schools, and this will pose a number of even more difficult planning and coordinating issues. Especially the vocational schools will need restructuring in accordance with the needs of the labour market, which will in all cases extend far beyond the boundaries of the municipalities. Also here MOES and the municipalities will need to learn to cooperate, rather than quarrel, and the Ministry should already be planning proper mechanisms and procedures for this necessary cooperation.
5. How will the schools serving ethnic communities who are minorities in a given municipality be protected from discrimination, financial and managerial? This is one of those problems which will be very difficult to address. In particular, the Ministry still lacks good tools of monitoring the performance of municipalities in the education sector, and has rather weak enforcement instruments.

Moreover, as suggested in the previous section, the Ministry of Education and Science should continue to make internal adjustments and redefine the role of its various associated institutions (regional representatives of MOES, Bureau for Development of Education, State Education

Inspectorate) to make them more effective in the context of decentralized education (see also Halasz 2002).

### **3. Looking ahead: challenges and opportunities**

The start day of the first phase of Macedonian decentralization is approaching fast, and all the ministries are intensively preparing themselves, led by the Ministry of Finance and the Ministry of Local Governments. Not all the issues have been fully resolved, as discussed above. Nevertheless, Macedonia is already preparing for the second (final) stage of education decentralization. Many questions remain open and their resolution will depend on municipalities' performance during the first phase.

The Ministry of Education and Science has adopted an education decentralization strategy (see MOES 2004). The strategy focuses on first phase of decentralization. Although it contains already some elements of the target system, the Ministry should work hard to define the long term vision of decentralized education in Macedonia. Maybe this vision should be included in the National Strategy for the Development of Education, which is now being debated in the country (see Draft national Strategy, MOES 2004). The implementation of the National Strategy will depend on how well the municipalities manage their local school systems and how they will begin to resolve the challenging problems.

A key concern is how the Ministry may prevent the re-emergence of open conflicts, which may threaten further progress. To this end the Ministry should answer a number of difficult open questions:

- How to monitor the evolving decentralized education system (how to restructure the Ministry for the new functions),
- How to ensure compliance with the legal and educational norms, and prevent discrimination at the local level,
- How to foster good cooperation between schools and between municipalities,
- How to proceed with the restructuring of archaic vocational education (will local governments have the skills and willingness to take the necessary difficult decisions),
- How to manage and finance the dormitories (should they be decentralized?)
- How to monitor quality and ensure good education for all, when the direct managerial responsibility is no longer in the Ministry's hands.

Decentralization of education in Macedonia offers new opportunities, but the cooperative effort of all stakeholders, especially of all the municipalities and the Ministry, is necessary to make sure that those opportunities are not lost.

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## Appendix 1: Spending on primary and secondary schools

	<b>% of Education budget</b>					
	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Primary education	55,45	57,86	57,33	55,20	53,07	56,44
Secondary education	21,04	22,19	21,80	22,21	20,91	21,70
Total	76,49	80,05	79,13	77,41	73,98	78,14

	<b>% of State budget</b>					
	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Primary education	10,54	9,13	7,90	7,19	6,74	9,23
Secondary education	4,00	3,50	3,00	2,89	2,66	3,55
Total	14,54	12,63	10,90	10,08	9,40	12,78

	<b>% of GDP</b>					
	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Primary education	2,31	2,17	1,93	1,84	2,00	2,05
Secondary education	0,88	0,83	0,73	0,74	0,79	0,79
Total	3,19	3,00	2,66	2,58	2,79	2,84

**Appendix 2: Budget by categories (in percentages) over years**

Year	Primary				Secondary			
	Salaries	Maintenance	Student transport and accomodation	Investments	Salaries	Maintenance	Student transport and accomodation	Investments
1998	84,65	8,40	4,32	2,63	88,90	8,11	0,13	2,86
1999	86,41	7,47	4,44	1,69	90,06	7,08	0,11	2,75
2000	82,37	7,25	8,30	2,08	88,21	6,98	2,54	2,27
2001	83,88	9,21	5,35	1,56	86,73	8,94	1,19	3,13
2002	81,75	10,95	5,93	1,37	85,01	12,04	0,00	2,95
2003	85,68	7,85	4,25	2,23	89,60	8,16	0,00	2,24

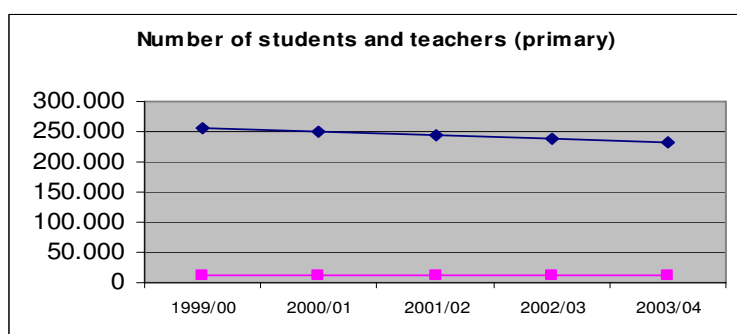
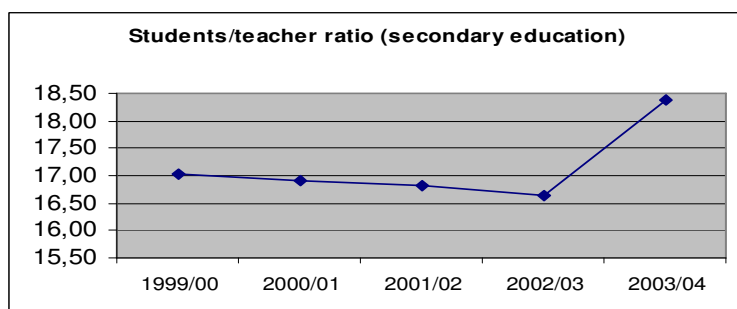
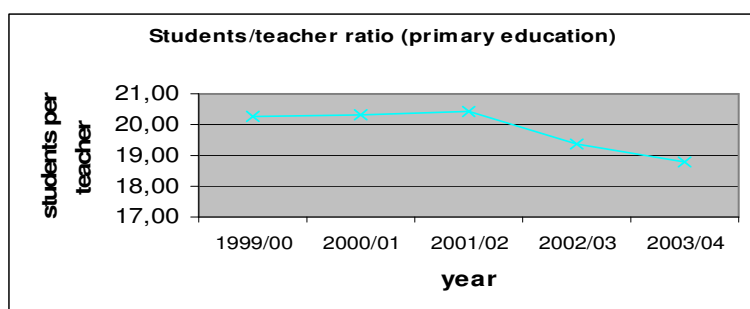
Since 2002, the student transportation and accommodation for secondary education was transformed into a separate program, called student standard (student transportation and accommodation for primary education was not separated). See the review in the section on financing.

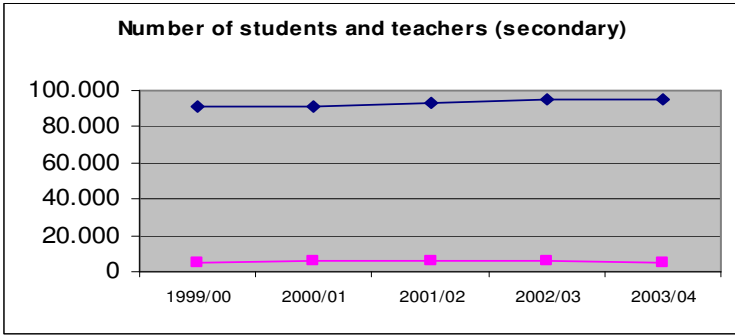
### Appendix 3: Average teaching salaries in relation to per capita GDP

	GDP per capita (USD)	Teacher salary (per month) Primary education	average teacher salary per year	Teacher salary (per month) Secondary education	average teacher salary per year
1998	1.781	317	3.804	340	4.080
1999	1.848	317	3.804	340	4.080
2000	1.924	317	3.804	340	4.080
2001	1.830	317	3.804	340	4.080
2002	1.859	413	4.956	443	5.316
2003	2.243	413	4.956	443	5.316

## Appendix 4: Student teacher ratio over time

Year	Primary			Secondary		
	Students	Teachers	Ratio (students per teacher)	Students	Teachers	Ratio (students per teacher)
1999/00	254.828	12.562	20,29	91.083	5.350	17,02
2000/01	248.901	12.240	20,34	91.644	5.420	16,91
2001/02	244.211	11.968	20,41	93.206	5.545	16,81
2002/03	238.060	12.277	19,39	94.854	5.696	16,65
2003/04	232.143	12.351	18,80	94.973	5.171	18,37





## Appendix 5: Primary and secondary school students by grade

The following tables are used in the main body of the report to analyze internal efficiency of Macedonian primary education.

Students by grade (primary)

	99/00	00/01	01/02	02/03	03/04	04/05
1	30.889	29.956	29.277	28.060	26.951	26.321
2	32.044	30.326	29.392	29.083	27.809	26.714
3	31.487	31.517	30.052	29.102	28.874	27.766
4	31.804	31.080	31.244	29.768	29.114	28.606
5	33.100	31.521	30.928	30.783	29.646	29.070
6	32.956	31.716	30.636	30.059	30.253	29.011
7	31.461	32.115	31.140	30.046	29.809	29.787
8	31.087	30.670	31.445	30.284	29.687	29.218
Total	254.828	248.901	244.114	237.185	232.143	226.493

Albanian  
teaching  
language

Students

Grade	99/00	00/01	01/02	02/03	03/04	04/05
1	10.265	10.247	9.847	9.684	9.240	8.935
2	10.479	10.183	10.042	9.853	9.671	8.988
3	9.861	10.482	10.025	9.745	9.923	9.587
4	9.724	9.919	10.227	9.826	9.828	9.682
5	9.927	9.666	9.641	9.878	9.708	9.691
6	9.571	9.653	9.105	9.341	9.843	9.580
7	9.021	9.314	9.381	9.101	9.210	9.671
8	8.638	8.705	8.910	8.924	8.923	9.012
Grand Total	77.486	78.169	77.178	76.352	76.346	75.146

Macedonian teaching language

	99/00	00/01	01/02	02/03	03/04	04/05
1	19.593	18.773	18.601	17.487	16.834	16.542
2	20.521	19.125	18.483	18.362	17.260	16.878
3	20.647	20.013	19.106	18.472	18.109	17.293
4	21.072	20.211	20.057	18.988	18.416	18.073
5	22.414	21.117	20.560	20.147	19.190	18.683
6	22.606	21.315	20.824	20.017	19.655	18.752
7	21.726	22.062	21.043	20.263	19.874	19.395
8	21.833	21.289	21.796	20.679	20.075	19.534
Grand Total	170.412	163.905	160.470	154.415	149.413	145.150

Students in secondary education by grade

Grade	02/03	03/04
	students	students
1	26.697	26.293
2	24.532	25.240
3	23.728	23.446
4	19.897	19.994
Total	94.854	94.973