Executive Summary

The context of the education system in Malawi is strongly marked by demographic pressure, a high prevalence of HIV/AIDS, striking poverty, and very low human and social development.

The Malawian education system has to develop within a heavier demographic context than that of its neighboring countries. Malawi’s population, estimated at 13 million inhabitants in 2008, is increasing at the rate of 2.4 percent per year. The 5–16-year-old age group represents 37 percent of the total population. This is the highest proportion of that age group in the entire Southern African Development Community (SADC) region. It is estimated that the population growth rate will slowly decrease, but that the primary school age group (6–13 years old) will increase by 20 percent between now and 2018. If universal primary education is reached before 2018, primary school places for 4.8 million children will be needed in 2018. This represents 45 percent more primary school places compared to 2008.

The large majority of the population (82 percent) still lives in rural areas where school supply and demand are weaker. Sixty-three percent of Malawians live on less than US$2 a day. Malawi has the highest malnutrition prevalence in the SADC region and an overwhelming 44 percent of preschoolers have stunted growth. There are an estimated 122 children per 1,000 who die before the age of five, which is similar to the SADC average. The adult (15 years and older) literacy rate is estimated to be 69 percent in Malawi, which is lower than the SADC average (75 percent). Illiteracy of parents impedes the achievement of education for all because these parents are less likely to enroll their children in school than literate parents.

The HIV/AIDS pandemic also dramatically affects the development of the education sector, because of the deaths of both teachers and parents. The pandemic also increases teachers’ absenteeism and the number of orphans, who are less likely to go to school than children with families. The adult (15–49 years old) prevalence rate is 12 percent, whereas children orphaned by AIDS represent 7 percent of the children under 17 years old (in addition to the 5 percent of children orphaned by other reasons). HIV/AIDS occurrences are highest in the Southern region and are concentrated in urban areas.

The Malawian economy is getting better but still remains one of the poorest in the world.

Malawi’s economy has been growing steadily since 2005, mainly due to recent sound economic policies and favorable weather conditions for agriculture. The continual increase in economic growth has allowed Malawi to reach a GDP per capita of around US$300 in 2008. In comparison to the entire SADC region, Malawi still has the third lowest GDP per capita and one of the five lowest in all of Africa. However, with the government’s increased emphasis on value addition on domestic products, coupled with the discovery and mining of uranium, there is the prospect of improved GDP levels.
Compared to countries with a comparable level of economic development, Malawi’s performance is very satisfactory for mobilization of public revenue. The rate of domestic revenue as a proportion of GDP is higher in Malawi than the average observed in low-income non-oil producing African countries (19 compared to 17 percent). Thus, while reducing the budget deficit at around 1 percent of GDP, the government has increased the volume of its expenditures up to more than 33 percent of GDP. This creates a good opportunity to increase spending for the education sector.

The ratio of enrollment increased very differently for the different levels of education. Compared to other African countries, education coverage remains very low, for post-primary levels in particular.

Since 2000, the gross enrollment ratio (GER) has decreased in primary education. In 2007, it was 101 percent. In the same period, early childhood care and development showed a very high increase in the enrollment ratio (from 2 to 23 percent), while coverage in secondary education stayed stable (16 percent). Enrollment in adult literacy programs is 1,074 learners per 100,000 inhabitants.

Compared to other Sub-Saharan African (SSA) countries, Malawi performs worse in post-primary levels and technical, entrepreneurial, vocational education and training (TEVET) (see the educational pyramids in figure 1).

Malawi still stands far from the Education Millennium Development Goal of universal primary completion because of the high number of dropouts within the primary cycle.

Access to Standard 1 in primary education is almost universal but the dropout rate is still very high, leading to only a 35 percent primary completion rate. The retention rate within the primary cycle improved from 23 percent in 2004 to 32 percent in 2007, but remains largely insufficient. The retention rate in secondary education is much better, with very few dropouts within the cycle (see figure 2).

The poor retention rate in primary education comes from a lack of school demand, in particular among the poorest. Economic difficulties and behavior such as early marriage, pregnancy, and family responsibilities explain the fragility of school demand. The lack of supply (crowded classrooms, open-air or temporary classrooms, and incomplete schools) also has a negative effect on retention. Sixteen percent of pupils are enrolled in a school that does not provide the eight grades of the primary cycle and these students are likely to drop out before completion.
**Figure 1: Educational Pyramids for Malawi and Sub-Saharan Africa**

**Malawi (2007)**

- Primary: 35% GER = 101%
- Lower Secondary: 18% GER = 18%
- Upper Secondary: 14% GER = 25%
- Theoretical ages: 17% GER = 47%
- Technical/Vocational: 2% of Total secondary

**Sub-Saharan Africa (2005/06)**

- Primary: 61% GER = 99%
- Lower Secondary: 35% GER = 45%
- Upper Secondary: 17% GER = 21%
- Theoretical ages: 17% GER = 47%
- Technical/Vocational: 6% of Total secondary

**Sources:** Calculation from EMIS, UN population data, and World Bank database.
The internal efficiency of the system is weak, in particular due to very high repetition rates.

The internal efficiency coefficient (IEC) at the primary level is particularly low (35 percent), which implies that 65 percent of public resources are wasted in paying for repeated grades or schooling for students who dropout before cycle completion. Currently, the system requires 23 student years to produce one Standard 8 graduate, instead of 8 years with an ideal internal efficiency. The situation has slightly worsened since 1999, when the IEC was 39 percent. A higher level of repetition is mainly responsible for this degradation.

Repetition rates have increased over the 1999–2006 period to reach 20 percent in primary education—a level that is the highest in the region. At the national and international level, evidence shows that too high repetition rates do not favor a better mastery of learning, increase the risk of dropping out, and have adverse effects on the STR (student-teacher ratio) and costs. An estimated MK1.97 billion is used annually to deliver primary education services to repeaters.

The Ministry of Education, Science and Technology is well aware of the issue, especially as it affects standards 1 to 4 of the primary cycle, where the highest repetition rates are to be found. The Ministry, inspired by success stories in other countries, is thinking of a policy to favor direct promotion between certain standards and for the others, (such as 4, 6, and 8) allowing a student to repeat only after failing to achieve a 50 percent pass in two subjects (standards 4 and 6), and after failing Standard 8.
Education in Malawi suffers from a flagrant problem of poor quality.

Malawi is offering poor and deteriorating quality education in primary schools, as documented by the Southern African Consortium for Monitoring Educational Quality (SACMEQ) scores and national examination pass rates. The number of children who reach a minimum level of mastery in English reading was cut in half in the period from 1998–2004, and in 2004 was barely nine percent. The decline may be partly explained by the 1994 Fee Free primary policy, which led to an increase of lower-performing students in the system. Nevertheless, examples of other countries who improved both quantity and quality in primary education at the same time shows that the free policy is not the only factor affecting the decrease of quality in Malawi.

At the primary level, high STRs are associated with lower Primary School Leaving Examination (PSLE) pass rates, as well as overlapping shifts, whereas school facilities tend to have a positive impact. At the secondary level, teacher characteristics have a major impact on Malawi School Certificate of Examination (MSCE) pass rates: While female teachers tend to perform better (all other things being equal), PT4 to PT1 teachers (teachers normally trained to work only at the primary level) do not teach as well as better qualified teachers, such as MSCE holders.

The lack of qualified teaching staff in primary education is combined with a fairly incoherent distribution, reflecting the lack of efficient administrative management.

Malawi is characterized by a severe lack of teachers at the primary level, as shown by its high STR, which was 80:1 in 2007. In 2000, the STR was 63:1; it rose through a combined increase in student enrollment and pupil retention and a reduction in the number of teachers. However, the recruitment of volunteers teachers has somewhat eased the pressure (bringing the STR down from 86:1 to 80:1).
Teacher qualification still remains a major challenge. Although the situation has improved in primary schools, the student-to-qualified-teacher ratio (SqTR) is still high, at 88:1 (down from 118:1 in 1999). The Ministry’s training efforts over the last few years need to be pursued if the situation is to be significantly improved.

The number of teachers assigned to different schools at the primary school level is erratic. There is little connection between the number of teachers allocated by the government and the number of students. For instance in a 1,000-student school, the number of teachers varies from less than 10 to more than 50 (see figure 4), making the class size range from 20 to 100.

The degree of randomness in teacher allocation is estimated at 42 percent (against 35 percent in 2000), which is well above the average of African countries (31 percent). This means that 42 percent of teacher allocation can be explained by factors other than the number of students enrolled in the school.

Teacher allocation across location and divisions/districts is uneven, with the deployment of teachers highly skewed toward urban areas (46:1) instead of rural area (86:1). At the division level, the STR ranges from 66:1 in the Northern division to 104:1 in the Shire Highlands. Some districts benefit from a SqTR lower than 60:1 while other districts have to handle a SqTR above 100:1 (see maps 1a and 1b).
At the secondary level, coherence in teacher deployment is better but there are still discrepancies between Conventional Secondary Schools (CSSs) and Community Day Secondary Schools (CDSSs), to the detriment of the latter.

At the secondary level, in spite of a relatively good average STR, more than 60 percent of teachers are underqualified, with a SqTR ratio of 51:1. Most of the underqualified teachers work in CDSSs; 81 percent of the CDSS teaching force is unqualified and 27 percent of the teachers in CSSs are unqualified. Globally, CDSSs have fewer resources than other schools, although they enroll nearly half of the secondary student population. They are generally underfunded, have underqualified teachers, a poorer learning environment, and lack appropriate teaching and learning materials and equipment.

Teacher deployment across secondary schools is fairly consistent, as indicated by the value of the statistical coefficient of determination ($R^2$) of 72 percent. This is a sharp improvement from 2000, when only 41 percent of the variation in teacher deployment was explained by school size. Yet, there remains room for improvement throughout the system, since 28 percent of teacher allocation still depends on factors other than the number of students enrolled in each school.
The lack of connection between available resources and results in the different schools shows that there is a serious pedagogical management problem.

In primary education, schools with the same expenditure per student (MK4,000 for example) show PSLE results that vary from less than 10 to 100 percent. Similarly, in junior secondary education, schools with a unit expenditure of around MK10,000 have Junior Certificate Examination (JCE) pass rates ranging from 15 to 100 percent. The education system is suffering from serious problems of pedagogical management insofar as some schools with higher than average expenditures show poorer results.

These observations raise questions about the process underlying the way resources are transformed into learning achievement at the school level. Beyond their allocation, the way resources are used seems to be a major factor influencing the level of learning outcome. Improving supervision, transparency, and accountability mechanisms at the local level are known to be effective interventions.

Considerable disparities in access exist and they increase along with the level of education. A family’s standard of living is the greatest factor in discrimination.

Schooling patterns suffer from disparities according to gender. Gender parity indexes decrease from 1.04 (that is, a better enrollment for girls than for boys) in the first four standards to 0.50 in higher education and 0.38 in TEVET.

Access to each level of education suffers even more from location and income disparities. The difference in the primary completion rate is 14 percent between boys and girls, yet 34 percent between urban and rural students. And the disparity is still greater—44 percent—between the richest 20 percent of the population and the poorest 20 percent (see figure 5). Furthermore, university students from the poorest quintile make up only 0.7 percent of students, while the richest quintile accounts for 91 percent.

**Figure 5: Access Rates to the Different Grades According to Wealth Index**

<table>
<thead>
<tr>
<th></th>
<th>1st quintile</th>
<th>2nd quintile</th>
<th>3rd quintile</th>
<th>4th quintile</th>
<th>5th quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to primary</td>
<td>98%</td>
<td>94%</td>
<td>67%</td>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td>Primary completion</td>
<td>94%</td>
<td>67%</td>
<td>59%</td>
<td>53%</td>
<td>39%</td>
</tr>
<tr>
<td>Access to lower secondary</td>
<td>23%</td>
<td>9%</td>
<td>8%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Lower secondary completion</td>
<td>67%</td>
<td>59%</td>
<td>53%</td>
<td>39%</td>
<td>31%</td>
</tr>
<tr>
<td>Access to upper secondary</td>
<td>98%</td>
<td>94%</td>
<td>67%</td>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td>Upper secondary completion</td>
<td>94%</td>
<td>67%</td>
<td>59%</td>
<td>53%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Sources: Calculation from MICS 2006.
The majority of public resources for education benefit the most privileged students.

Each child benefits from part of the public education expenditure through his or her schooling. The longer a child stays in the education system, the greater the share of public resources used, which corresponds to what the government pays for the child’s education. In Malawi, the 10 percent most educated (those who study longest) benefit from 73 percent of the public resources allocated to the education sector. This makes the Malawian education system the most elitist system in Africa. Malawi appears to be the country that provides the most inequitable distribution of public resources for education (see figure 6). The SSA average value for this indicator is 43 percent.

Figure 6: Share of Public Education Expenditure for the 10 Percent Most Educated, Africa Region

Schooling inequalities according to socioeconomic characteristics are thus reflected in an unequal appropriation of public resources for education. For example, girls only benefit from 48 percent of the public expenditure on education, compared to 52 percent for boys. Due to longer schooling for children from the wealthiest households, 68 percent of the public education expenditure goes towards education for the 20 percent most privileged children. Conversely, the poorest 20 percent of children only benefit from 6 percent of these resources (that is, 11.5 times less).

Schooling inequalities are also geographical.

The Northern region has better educational coverage than the two others. The GER in primary (134 percent) and secondary education (28 percent) are much higher than at the national level (101 and 16 percent, respectively). The primary completion rate is more than 50 percent in a few districts (Mzimba, Rumphi, and Nkhatabaya) while it is below 30 percent in six others (Dedza, Mangochi, Ntcheu, Machinga, Phalombe, and Thyolo). The secondary completion rate (proxied by the access rate to Form 4) is very low. The Northern region is at the same level as the Southern (12 percent), and Central is lower (9 percent). At the district level, Blantyre has the maximum value (30 percent), while 19 districts have less than 10 percent; three of them (Chitipa, Balaka, and Machinga) being under 5 percent (see maps 2a and 2b).

Source: Calculations from MICS 2006.
Note: Related figures are reported in Appendix 5.3.
The budget priority for education is still in the bottom half when compared to other African countries.

Total education public recurrent expenditures amounted to MK22.3 billion in the 2007/08 fiscal year. This represents 19.4 percent of total government recurrent expenditures and it is an increase compared to 2001/02 (16 percent). However, the budget share for education can certainly be increased further. In the 10 low-income African countries that most highly prioritize their education system, the share for education equals an average of 28.8 percent. Unfortunately, preliminary data for 2008/09 indicates a decreasing trend that would prevent Malawi from catching up with both the SADC average (20.8 percent) and the EFA-FTI reference benchmark (20 percent).

Development partners provided US$53.8 million to support the education sector in 2007/08. On average between 2004 and 2006, education in Malawi benefited from aid equivalent to 1.9 percent of GDP (compared to 1.1 percent of GDP on average in SSA). Direct support to education accounted for 1.2 percent of GDP and 0.7 percent of GDP was the estimated education share from the global budget support.

Within the education budget, there is a lack of priority for the primary level and it keeps decreasing.

Primary education gets the largest share of the recurrent education expenditures with 44 percent of the total. The share for higher education (27 percent) is higher than that for secondary education (22 percent). The amounts allocated to preschool, literacy, TEVET, and teacher training does not exceed 7 percent when added together. In particular, very low priority is placed on ECD and literacy when allocating public resources (less than 1 percent for each). The 2000–2008 trends show a decrease in the priority of primary education to the benefit of higher education (see figure 7).

![Figure 7: Evolution of the Distribution of Recurrent Expenditure by Level of Schooling](chart1.png)
In 2008, Malawi’s allocation to primary education, when calibrated to a 6-year cycle (as is common in most African countries), was one of the lowest (32.5 percent) in a continent where the average is 44.4 percent. Compared to other countries, Malawi prioritizes higher and secondary education above primary education. Malawi’s recurrent allocations to secondary (40.4 percent when adjusted to a 7-year cycle duration for a comparative perspective) and higher education (27 percent) are above average—the SSA average is 34.4 percent for secondary and 21 percent for higher education.

As a result of making comparatively poor budget allocations to primary education, the public recurrent unit cost for primary is very low and the unit costs for secondary and higher education are very high.

In 2007/08, the recurrent expenditure per student in primary education was around MK3,000, which is equivalent to only 8.3 percent of GDP per capita (compared to an average of 12 percent in the SADC region and 11 percent in SSA).

At the secondary level, the public unit cost is estimated to be MK30,300 (83 percent GDP per capita versus 30 percent for the SSA average) and it is four times higher (in terms of GDP per capita) than it was in 2000. However, this average unit cost for secondary hides the disparities that exist between the CSSs and the CDSSs, to the detriment of the latter. TEVET, when parallel students are included, costs the government MK136,500 per year per student (equivalent to 45 times the primary unit cost).

Larger secondary schools would help to reduce the unit cost. While potential economies of scale are modest in primary schools, they are quite important at the secondary level. This has to do with student-teacher ratio levels and school size: While the average number of students in secondary schools is relatively low at 212, it reaches an average of 642 pupils in primary schools. Scale economies are possible at the secondary level, by favoring larger schools of more than 150 students and increasing the STR level.

The public recurrent unit cost of university education is the highest in the world in terms of GDP per capita (2,147 percent of GDP per capita, or seven times more than the SSA average). One year of study for one university student costs the same amount to the government as 259 school years of primary pupils.

Consequently, schooling conditions are comparatively very bad in primary education and better than average in secondary and higher education.

Unit cost in primary education is low mainly because of the very high student-teacher ratio—80:1 vs. 48:1 for the SSA average (see table 1) and the low rate of other recurrent transactions (ORT) allocated to primary education. Inversely, the secondary education unit cost is high because the student-teacher ratio is low (20:1 compared to 28:1 for the SSA average) while the ORT rate is relatively higher than in primary education.

The extremely high unit cost in higher education is mainly due to a very low student-lecturer ratio and comparatively high teacher salaries. The student-lecturer
ratio is 11:1, which is below the Organization for Economic Co-operation and Development (OECD) average of 16:1 and half the SSA average. The teacher salaries account for 64 units of GDP per capita, compared to an average of 19 units of GDP per capita in the five economically similar countries with available data. The very small number of university students in Malawi does not help reduce unit cost by economies of scale.

**Table 1: STR in Public Schools by Level of Education (2007)**

<table>
<thead>
<tr>
<th></th>
<th>Primary education</th>
<th>Secondary education</th>
<th>Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>80</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>SADC average</td>
<td>41</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>SSA average</td>
<td>45</td>
<td>28</td>
<td>20</td>
</tr>
</tbody>
</table>

*Sources: Chapter 4, Chapter 7, and World Bank data.*

Higher education is, along with primary education, the level to which households contribute the least. It is also the level with the lowest number of students from the poorest families.

Primary education is mostly funded by public resources (92 percent of the total cost), which is in line with the implementation of Free Primary Education and the MDG. The cost-sharing structure between public and private funding is the same in higher education as in primary education with 92 percent of the financing coming from public resources (see figure 8).

**Figure 8: Contribution of Public Financing by Level of Education (2007)**

*Sources: Tables 3.4 and 3.7 in Chapter 3.*
This raises an equity issue in the way public resources are allocated to education because 90 percent of the students in higher education are from the wealthiest 20 percent of households (see Chapter 5) and these students get a very high level of private return (salaries) when working after graduation (see Chapter 8). It would be relevant to discuss ways to create a more equitable cost-sharing of the higher education service delivery.

The TEVET system is very fragmented and formal general TEVET programs enroll very few learners.

The TEVET system in Malawi is highly diverse, fragmented, and uncoordinated, with multiple private and public provider systems. Reasonable, robust data are available only for the formal general TEVET provided in public technical colleges (TCs) under the auspices of the Ministry of Science, Education and Technology (MOEST). Access to the regular TEVET programs is very low; these are regulated and administered by the TEVET Authority (TEVETA) and provided mainly as four-year apprenticeship training.

With an annual intake of around 700, only 3.9 percent of MSCE graduates have access. Including so-called “parallel” students, who are directly recruited by the TEVET institutions, annual enrollment in the public TEVET system under MOEST was 4,807 in 2007. This represents 35 TEVET students per 100,000 inhabitants, by far the lowest access rate in the group of SADC countries for which data are available. TEVET enrollment in Malawi represents only two percent of the secondary education enrollment, three times less than the African average of six percent; see the educational pyramids in figure 1.

The training supply in the formal system is limited to mainly traditional technical trades. Additional skill development opportunities are provided by other ministries, NGOs, and church-run schools in the private training market and, not least, by companies. Of particular importance for the informal sector, and for low income groups, is the system of traditional apprenticeship (mastercraftsman training).

As far as the formal TEVET system is concerned, access is biased against girls, school leavers from poorer districts, and those with lower educational attainment.

The female participation rates in the country’s main TEVET examination systems—trade testing and Malawi (Advanced) Craft—are 10 percent and 23 percent, respectively. This indicates the low access girls have to TEVET. However, at least in the public TCs, the female share is slowly increasing to 30 percent, which is the result of an antidiscrimination policy employed by TEVETA.

School leavers from the Northern region are overrepresented in regular TEVET. Access to regular TEVET programs has recently been limited to MSCE holders, effectively excluding the majority of the country’s youth from the publicly subsidized general TEVET system.
TEVET is funded by multiple sources, including household contributions and investment from the business sector.

TEVET in Malawi, including the public TEVET system, is funded by multiple sources. Although again, a comprehensive picture of all contributions is not readily available, it can be assumed that public expenditure is one, but most likely not the most important funding source. Figure 9 depicts the major flow of funds and summarizes the different sources by the type of training they are funding.

Overall public expenditure for TEVET, including examination systems, amounted to MK760 million in 2007/08, of which MK250 million were allocated through MOEST in support of general TEVET. This represents a recurrent public expenditure per student of 141 percent of GDP per capita, a relatively high value compared to other African countries. The average public allocation per TC student is MK35,100, but this varies a lot across the different TCs and is not related to enrollment or other performance indicators.

The TEVET Fund administered by TEVETA has been successful in increasingly mobilizing private sector resources for TEVET. Levy income from private companies in 2007 contributed 84 percent of the entire TEVET Fund.

Direct TEVETA subsidies for training programs, including training for companies and the informal sector, has grown to 36 percent of the annual fund expenditure. Administration cost as a share of TEVETA’s budget has fallen substantially in recent years; however, it still represents a relatively high 38 percent.
Household contribution is highly differentiated according to the status of the students.

Private households contribute significantly to the cost of TEVET in Malawi, mainly through fees (tuition and examination), boarding fees, the cost of living of trainees (if boarding is not an option), as well as opportunity costs if a trainee would have otherwise been employed and earned an income.

In the formal TEVET programs provided in the TCs, private contributions are highly differentiated according to the status of the students—whether they are regular (TEVETA-sponsored) apprentices or parallel students recruited directly by the colleges. The former are subsidized by TEVETA and the public budget (through MOEST base-funding of the institutions). Over the entire four-year training period, parallel students pay 5 to 6.6 times the amount of regular students. It should be recalled that admission to TEVETA-sponsored apprenticeships is limited to around 700 students annually, which represent only 38 percent of all students in enrolled TCs.

The quality of the TEVET provision is negatively affected by multiple factors, including lack of clarity about the roles of main stakeholders.

The main factors affecting quality are inadequate equipment and facilities; a shortage of training materials due to financial constraints; and, in particular, deficient practical competences of TEVET teachers coupled with an absence of a systematic TEVET teachers training system. A low quality of training leads to low pass rates in national examinations of between 50 and 67 percent.

The most important impediment to sustainable quality improvement is the coexistence of the three local qualification systems—trade testing, Malawi (Advanced) Craft, and CBET (implemented by TEVETA), which prevents the development of a unified employer-involved quality assurance system, and forces teachers to train on the basis of parallel curricula.

The lack of clarity about the division of roles and responsibilities among the main actors—TEVETA, MOEST, and the Ministry of Labour (MOL)—and major stakeholders such as the private sector, has been a major reason why implementation of the agreed TEVET sector reform has been slow. It also affects the status of the public TCs, whose current scope of responsibility is not appropriate to the diverse funding and program structures they have to manage.

Higher education enrollment is one of the smallest in the world but it is growing at a quick pace.

Malawi, with 51 students per 100,000 inhabitants, has the lowest university enrollment when compared to other African countries whose average is 337 (see figure 10). Nevertheless, university enrollments almost doubled from 2003–2008, in partly because of the enrollment of non-residential students and the establishment of private universities, which contributed 12.4 percent of the total enrollment in 2008.
Postgraduate enrollments account for less than 10 percent of total enrollment. Private colleges are not offering postgraduate programs yet. The highest enrollments are in the social sciences and sciences. Areas critical to the implementation of the Malawi Growth and Development Strategy are not adequately covered.

**There are still huge gender disparities in the access to higher education.**

Female enrollment has remained around 30 percent in public institutions and around 45 percent in private institutions. There are a number of reasons why female enrollments are low in higher education. The first has to do with the dropout rates for
females throughout the education cycle in primary and secondary levels (see Chapter 2). This reduces the percentage of females who enter for the MSCE examination to below that of males. In addition, the percentage pass for female-to-female is lower than that for male-to-male. As a result, there is a double screening in the numbers of females that eventually qualify for university entry.

Bed space is also an important constraint in enrolling more females as the institutions have more bed space allocated for males than females. In 2008, the total bed space for all the University of Malawi (UNIMA) colleges was 2,761 for males and 1,383 for females.

The introduction of non-residential programs has increased enrollments for both genders but the enrollment statistics show that the percentage of non-residential female students is consistently lower than that for males and also lower than that for residential female students. This may be attributed to problems of financing, having to live alone in rented accommodations, and commuting to college daily.

**Higher education is highly subsidized by public resources and is delivered at an extremely high unit cost when compared to other countries.**

The percentage of the education public budget allocated to higher education (27 percent) is higher than the average (21 percent) for SSA countries. The subventions account for over 80 percent of the income of public universities, while student fees and other income contribute less than 10 percent each. Student fees are the main source of income for private universities.

The higher education recurrent unit cost of 21.5 times the GDP per capita is the highest among all the SSA countries, whose average is 3.14 times the GDP per capita (see figure 11). It varies widely from one institution to another.

**The way public universities use expenditures is not efficient.**

**Emoluments and benefits consume more than 50 percent of expenditures in public institutions.** Very little is spent on teaching materials and equipment, books and periodicals, and research. Emolument comprises less than 40 percent of the total expenditure in private universities, which also spend more on teaching materials than public institutions.

The average student/lecturer ratio at 11:1 is very low, compared to other countries in SSA of similar GDP whose average is 20.4:1. Lecturer salaries expressed at 65.8 times GDP per capita are also higher compared to other SSA countries with similar GDP whose average is 24.3 times GDP per capita (see table 2). This also contributes to a very high unit cost.
Figure 11: Higher Education Public Recurrent Unit Costs (2007 or last year available)

(in relation to GDP per capita)

Malawi
Mozambique
Lesotho
Rwanda
Ethiopia
Niger
Tanzania
Botswana
Eritrea
Chad
Burundi
Sri Lanka
Zambia
Kenya
Gambia
Senegal
Swaziland
Burkina Faso
Zimbabwe
Central African Republic
Côte d’Ivoire
Ghana
Congo, Rep. of
Uganda
Mali
Madagascar
Liberia
Guinea
Togo
Benin
Comoros
Guinea-Bissau
Nigeria
Sudan
Mauritius
Namibia
Cameroon
Congo, Dem. Rep. of

Sources: Revised 07/08 budget (Ministry of Finance and our own calculations) and World Bank data.
Table 2: Higher Education Teachers' Average Salary, as Units of GDP Per Capita for Countries with GDP per Capita Lower than US$500 (2007 or last year available)

<table>
<thead>
<tr>
<th>Country</th>
<th>Higher Education Average Lecturers' Salaries as Units of GDP Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congo, Dem. Rep. of</td>
<td>4.1</td>
</tr>
<tr>
<td>Guinea</td>
<td>10.3</td>
</tr>
<tr>
<td>Mali</td>
<td>12.1</td>
</tr>
<tr>
<td>Madagascar</td>
<td>12.8</td>
</tr>
<tr>
<td>Malawi</td>
<td>65.8</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>27.1</td>
</tr>
<tr>
<td>Burundi</td>
<td>37.2</td>
</tr>
<tr>
<td>Average 7 countries</td>
<td>24.2</td>
</tr>
</tbody>
</table>

Sources: Malawian higher education institutions and World Bank data.

The student loan scheme is inefficient and not targeted to the neediest.

Initially, students were provided with a straight grant. Around 1994, the policy shifted to a loan system in which students were expected to repay their loans after graduation. However, recovery mechanisms were not established and the loans effectively became grants. In 2005, there was another policy shift that led to the National University Student Loan Trust, which would lend and recover the loans from the graduates. The Malawi model is the mortgage-type loan with a fixed rate of payment over a period of time. Other countries use the income contingency system, which is based on a percentage of the salary of the borrowers when they are in employment until the loan is repaid.

As currently constituted, recovery relies on the cooperation of the employers as there is no legal framework in place that obligates employers to report on graduates in their employment and deduct repayments and remit these to the Trust. A serious backlog of loans is building up.

Countries like Zimbabwe and South Africa have such legal frameworks, which have proved effective in improving loan repayments. A legal framework that spells out the responsibilities and obligations of all parties and the sanctions applicable is therefore a critical prerequisite to the success of this scheme.

The Loan Trust meant for the needy does not apply a “Means Test,” and as result almost all applicants access it. The system is not equitable because those who access loans are mainly among the wealthiest in the country.

Education has an important impact on social development. Primary education is the level of education that has the greatest impact.

Education in general (particularly for girls) has a strong impact on literacy, on behavior in terms of reproduction and maternal and child health, and on knowledge of HIV/AIDS. For example, with all else being equal, women who have never attended school benefit from medical help at childbirth in only 43 percent of all cases, while those who have completed primary education do so in 67 percent of all cases, and those who have completed secondary education do so in 79 percent of all cases.
The primary cycle contributes to almost half (48 percent) of the total impact of education on social development. It reinforces the rationale that efforts need to be implemented for all Malawian children to achieve at least the primary cycle. Finally, it is important to indicate that all costs being equal, the efficiency of the primary cycle in enhancing human development is 18 and 243 times higher than that of the secondary cycle and of tertiary education, respectively.

External efficiency in relation to employability is high, in particular for TEVET and higher education graduates.

Tracer studies show a generally high satisfaction with higher education outcomes among graduates and employers. The average duration between graduation and job entrance is relatively low. Job insertion rates of academically trained people are among the highest in Africa (see figure 12).

**Figure 12: Job Insertion Rate (Modern Sector Only) of Higher Education Leavers**

TEVET completers also show a high acceptance in the labor market when recording the job insertion rates of all African countries for which comparative data are available. The time it takes to find a job after graduation is lower for former apprentices than for completers of other programs.

For higher education in particular, the wage premium is extremely high compared to other countries. The private rate of return for higher education graduates is particularly high.

The relevance of education to the labor market is indicated by increasing average annual incomes gains for each additional level of education. The additional average income of people working in 2004 compared to the lower educational level was 14 percent for lower primary, 60 percent for upper primary, 92 percent for lower secondary, 155 percent for upper secondary, and 177 percent for TEVET. The income gain for higher education as compared to TEVET is 440 percent (see table 3).

Table 3: Annual Average Income and Expected Annual Income According to Level of Education

<table>
<thead>
<tr>
<th>Annual average income for people working (MK)</th>
<th>Expected annual income taking into account unemployment risk (MK)</th>
<th>Income increase compared to previous level of education (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No school</td>
<td>7,095</td>
<td>7,015</td>
</tr>
<tr>
<td>Lower primary</td>
<td>8,112</td>
<td>8,005</td>
</tr>
<tr>
<td>Upper primary</td>
<td>12,983</td>
<td>12,715</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>24,969</td>
<td>24,038</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>63,566</td>
<td>57,121</td>
</tr>
<tr>
<td>Technical college</td>
<td>176,582</td>
<td>169,221</td>
</tr>
<tr>
<td>Higher education</td>
<td>952,027</td>
<td>929,233</td>
</tr>
</tbody>
</table>


The average income of TEVET completers remains relatively low compared to higher education graduates. The income prospects for graduates who ventured into self-employment appear to be higher than for the wage-employed. Income variations among occupational areas are more pronounced in TEVET than in higher education.

No significant correlation exists between the duration of TEVET training and income, which raises concern about the appropriateness of the long duration of the public regular TEVET program.

The average incomes of higher education graduates are highest for lawyers, engineers, and pure scientists, indicating labor market shortages.

Comparable data of mean income by educational level as a percentage of GDP per capita are available for five African countries in addition to Malawi. Up to the lower secondary level, the mean income as a percentage of GDP stays low in comparison with the other countries. It approaches the higher end of the group with three times the GDP per capita in upper secondary, and rises above all other countries for people with a technical training background, who can expect to earn 8.25 times the country’s per capital income. The ratio of expected incomes to GDP per capita rises to an enormous
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44.5 for people with a higher education background, way beyond what was found in other countries (see figure 13).

**Figure 13: Mean Income by Education Level in Relation to GDP Per Capita**

![Graph showing mean income by education level in relation to GDP per capita](image-url)

*Source: World Bank database.*

The rates of return (ROR) to education in Malawi are very high, in particular at higher education levels, which reflect Malawi’s low overall access to education. Private ROR of 54 percent for TEVET and 171 percent for higher education also indicate severe shortages of skilled and highly educated human resources, demonstrating the country’s urgent need to ensure greater access rates to stimulate growth.

A comparison between social and private ROR at different education levels again reflects the high public subsidization for higher education, although the benefits are mainly private.

**Some indications exist regarding skill demands but there is a need for additional surveys.**

Recently, only the TEVETA Labour Market Survey (JIMAT, 2008) tried to identify skill demands in more concrete terms. According to JIMAT, which focused on occupational areas for which formal TEVET programs exist, unmet training needs are significant in advanced mechanics, welding and fabrication, general fitting, electronics, administration, building, calibration equipment, computer knowledge, machine maintenance, plant operators, steel fixing, advanced molding, and fire drill evacuation.

A lack of practical skills was recorded as a key weakness by the majority of companies. JIMAT also found that on average across occupational fields, the demand
for further skilled labor as a percentage of all employed in the specific occupational field was 47.6 percent, with occupations such as water plant operators, instrumentation mechanics, mechatronics, plumbers, refrigeration technicians, painters and decorators, roofers, drivers, electricians, plant operators and welders showing an above-average shortage (unmet demand) of the skilled workforce (see figure 14).

![Figure 14: Unmet Labor Demand as a Percentage of Employed in Selected TEVET Occupations](image)

In view of the occupational limitations, methodological problems as well as resources needed for studies such as the one JIMAT undertook, considerable doubts remain as to whether comprehensive quantitative attempts to assess skill shortages and forecast future needs is the right approach to training needs assessment in a country like Malawi, where research capacities and resources are scarce. More qualitative assessment methods, such as sector-specific consultative meetings with employers and experts, complemented by targeted surveys of selected economic sectors, may be more promising.
### Policy Recommendations Matrix by Sub-Sector

**SECTOR-WIDE**

Main challenges: i) Share knowledge transparently to enhance smooth implementation of reforms, ii) Strengthen capacity to better plan policies and monitor performance.

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Situation in Malawi</th>
<th>Policy Proposals</th>
<th>Financial Cost ($)</th>
<th>Political Cost (*)</th>
<th>Expected Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhance knowledge sharing about the education system’s strengths and weaknesses.</strong></td>
<td>The 2008/09 Country Status Report (CSR) has been done with much greater government participation than the first CSR. Some major findings of the CSR are striking and call for reforms that may be politically sensitive.</td>
<td>Implement the dissemination strategy of the CSR in order to reach all stakeholders up to the local level.</td>
<td><strong>$</strong></td>
<td>Good communication skills will be needed to explain the needs of some reforms (based on the CSR results), which may be unpopular for some groups of people.</td>
<td>Better knowledge of the education system and of the need for reforms to achieve goals.</td>
</tr>
<tr>
<td><strong>Strengthen capacity to ensure better data production for planning policies, monitoring, and performance.</strong></td>
<td>National population data are important in order to adequately monitor progresses in schooling attendance. Birth registration suffers from large under-declaration. As a result, the school-age population is not adequately known, making the calculation of schooling indicators inaccurate.</td>
<td>Improve demographic data production. Advocate and take action in favor of birth registration generalization (at birth and retroactive procedures).</td>
<td><strong>$$</strong></td>
<td>Better estimates of the school-age population and more reliable indicators to inform planning and support relevant monitoring of the sub-sectors.</td>
<td></td>
</tr>
<tr>
<td>Planning and the efficient monitoring of a system depends on reliable and recent statistical data.</td>
<td>Some statistical data in Malawi are incomplete or not reliable enough. Access rates to first standards based on Education Management Information System (EMIS) data are over-estimated due to the double count of some new entrants. Data on non-state education and training are weak, in particular for Technical, Entrepreneurial, and Vocational Education and Training (TEVET) and Early Childhood Development (ECD).</td>
<td>Improve the way EMIS monitors dropout/reintegration (some children dropout and come back to school the next year without being counted as repeaters) to adequately assess intake rates. Strengthen the capacity to improve the statistical information system, in particular for TEVET and ECD.</td>
<td><strong>$</strong></td>
<td>Measures costs that are more technical than political</td>
<td></td>
</tr>
</tbody>
</table>

Notes:

- $ No or low cost, $$: moderate cost, $$$: high cost
- * Low political cost, **: moderate political cost, ***: high political cost
PRIMARY EDUCATION

Main challenges: i) increase the budget priority for primary education, ii) reduce repetition and dropouts, iii) improve the quality, and iv) improve teacher and other resources management.

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Situation in Malawi</th>
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<th>Political Cost (*)</th>
<th>Expected Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the budget priority for primary education.</td>
<td>In the last decade, the budget priority for primary education declined. Schooling conditions, such as class size, have deteriorated due to an expansion of enrollments, which was not matched by corresponding increases in teachers for the sub-sector. The student-teacher ratio (STR) is 80:1 in Malawi is around twice the Southern African Development Community (SADC) average (41:1). When calibrated to a six-year duration (for comparative purposes), the share allocated to primary is only 32.5 percent—far from the African average of 44.4 percent. The recurrent expenditure per student in primary education is around MK3,000, which is equivalent to only 8.3 percent of GDP per capita (compared to an average of 12 percent in the SADC region and 11 percent in Africa).</td>
<td>Increase the amount of public resources for primary education by making it a priority to allocate new resources to this sub-sector, in particular for training and recruiting additional teachers.</td>
<td>$$3**</td>
<td>Possible opposition from other sub-sectors for the allocation of new resources.</td>
<td>Improved schooling conditions will make for an improved quality of education.</td>
</tr>
<tr>
<td>Enroll the last unreached children who never went to school.</td>
<td>Four percent of children never attend primary education, which affects the achievement of UPE and limits enrollment in post-primary cycles.</td>
<td>Identify the unreached children and assess their specific needs to ensure they go to school.</td>
<td>$$2**</td>
<td>Targeting the most vulnerable may be difficult as it raises questions about the criteria to be used and the type of actions to take to have them in school.</td>
<td>There will be universal access to Standard 1.</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Rationale</th>
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<th>Policy Proposals</th>
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<th>Political Cost (*)</th>
<th>Expected Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce dropouts within the cycle.</td>
<td>Due to very frequent dropouts within the primary cycle, the primary completion rate is only 35 percent.</td>
<td>Build new classrooms and hire and train new teachers to complete incomplete schools.</td>
<td>$$$$**</td>
<td></td>
<td>The completion rate will be improved.</td>
</tr>
<tr>
<td>UPE requires that all children access and complete the full primary cycle.</td>
<td>Poor student retention comes from both the supply and demand side. Incomplete schools are still an issue because 13 percent of pupils attend a school that does not provide a continuous educational supply up to Standard 8, making them more likely to dropout if another school does not exist close to their home. Crowded classrooms, open-air, and temporary classrooms also significantly affect retention rates. Economic difficulties and behavior such as early marriage, pregnancy, or family responsibilities are reported as major reasons for dropping out.</td>
<td>Enhance school demand among the poorest population (via cash transfers, school meals, and advocacy for the school). Advocate in favor of postponing pregnancies and early marriages</td>
<td></td>
<td></td>
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<tr>
<td>Reduce repetition rate.</td>
<td>Repetition rates have increased over the 1999–2006 period to reach 20 percent in primary education—a level that is the highest in the region. Evidence, at national and international level, shows that high repetition rates do not favor a better mastery of school subjects, have adverse effects on STR, and increase dropouts and costs. An estimated MK1.97 billion is used annually to deliver primary education services to repeaters.</td>
<td>Reorganize the primary cycle into sub-cycles (Std1-Std2, Std3-Std4, Std5-Std6), within which repetition would not be allowed. Sensitize/train school participants (e.g., head teachers, teachers, parents, inspectors) on the real impact and cost of repetition.</td>
<td>$***</td>
<td>Possible resistance from some parents and teachers who may believe that repetition has a positive effect on learning outcomes.</td>
<td>Repetition will decrease, the completion rate will improve, and the use of public expenditures will be more efficient.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Situation in Malawi</td>
<td>Policy Proposals</td>
<td>Financial Cost ($)</td>
<td>Political Cost (*)</td>
<td>Expected Results</td>
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<td>-----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Improve quality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching time, when effectively respected, has an important positive impact on student learning achievement.</td>
<td>The learning outcomes for primary students have worsened over the years. Malawi’s scores on student learning tests are among the worst in the SACMEQ countries. The official schooling time is not always respected in Malawi. It is estimated that 20 percent of teaching time is lost due to teacher absenteeism and 16 percent of schools use overlapping shifts. Moreover, pupil absenteeism, holidays, and other events when the schools are closed also contribute to a decrease in teaching time.</td>
<td>Implement measures to better respect official schooling time, such as increasing the responsibility of the community in school management; supervision; and evaluating results (look at the example of multi-party school management committees in Niger).</td>
<td>$$**</td>
<td>Difficult to measure because it involves communities and should therefore be organized with a large sensitization campaign. However, impact can be important. Communitarian management school was successfully implemented in Niger and contributed to the increased efficiency of schools and an improved quality of teaching.</td>
<td>Accountability at the school level will increase and this will improve the quality of education.</td>
</tr>
<tr>
<td>Efficiently trained teachers are key to ensuring a good quality of learning.</td>
<td>There is still a lack of qualified teachers. Trends show an improvement in the situation as indicated by the decrease in the Student per Qualified Teacher Ratio (SqTR) from 118:1 in 1999 to 91:1 in 2007 but further improvements are needed to reach the 40:1 Education for All-Fast Track Initiative (EFA-FTI) reference benchmark.</td>
<td>Pursue efforts in teacher training development (e.g., pre- and in-services, continuing professional development). Evaluate the different training courses provided to scale up the most cost-effective ones.</td>
<td>$$*</td>
<td>More qualified teachers will make for an improved quality of education</td>
<td></td>
</tr>
<tr>
<td>Female teachers show better results than their male counterparts in learning outcomes.</td>
<td>The proportion of teachers who are female in Malawi is very small (26 percent of all primary teachers) compared to other countries.</td>
<td>Recruit more female teachers, if necessary through a positive affirmative action process.</td>
<td>$$</td>
<td>Measure relatively easy to organize.</td>
<td>A higher proportion of female teachers will increase student learning and school retention.</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Rationale</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Better manage the allocation of teaching staff and other resources in schools.</td>
<td>The government is responsible for providing equal learning conditions for all children. This means ensuring that the allocation of teaching staff is well-balanced throughout the territory and matches the needs of the schools (contingent on the number of pupils/students). Large disparities exist among education divisions and schools in Malawi. While some schools have two teachers for 200 pupils, others have six teachers for 100 pupils. The Shire Highlands and South Eastern divisions have the lowest allocated number of government-funded teachers compared to the number of students. The average SqTR is 99:1 in rural schools and 47:1 in urban schools. The STR is one of the highest in the world in primary education (80:1 in Malawi vs. 48:1 for the African average) while the STR in secondary education is much better than the African average (20:1 compared to 28:1). Fifty-five percent of teachers teaching in secondary schools were trained to only teach in primary schools. Books at the primary level are not allocated consistently and they are not always adequately used by teachers and school staff.</td>
<td>Implement—without exception—the school-based, post-recruitment system. In consultation with teachers' unions, design and implement a stable, incentive-based system for rural and remote areas. Favor the reallocation to primary schools of primary school teachers currently based in secondary schools. Improve the consistency of book allocation and use at the school level.</td>
<td>$$**$$ Some resistance may arise as it may be difficult to force people to move to remote areas, meaning that required incentives could be costly. Transferring teachers from secondary schools to primary schools may also be politically sensitive.</td>
<td>Inequalities in learning conditions among students will be reduced once there is a more consistent allocation of teaching staff and textbooks.</td>
</tr>
<tr>
<td>Regular evaluations and transparency in the results of student learning will strengthen the accountability of stakeholders and improve the overall efficiency of schools.</td>
<td>The evaluation of pupils in Malawi is neither systematic (in time) nor uniform (throughout the territory).</td>
<td>Regularly evaluate learning achievements in a standardized manner and organize performance evaluations at the school level.</td>
<td>$$$$$$$ Measure is more technical than political; it is included in the 10-year plan and Fast Track implementation. The study on efficient schools goes in the same direction.</td>
<td>The existence of an educational system in which quality is scientifically measured and transparent will give lower-performing schools an incentive to improve.</td>
</tr>
</tbody>
</table>

**Notes:**

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SECONDARY EDUCATION

Main challenges: i) Improve the equity in learning conditions, ii) improve quality, and iii) increase efficiency.

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Situation in Malawi</th>
<th>Policy Proposals</th>
<th>Financial Cost ($)</th>
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<th>Expected Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing equal learning conditions for all secondary students is very important in increasing equity.</td>
<td>The allocation of other recurrent transactions (ORT) to secondary schools is very weakly related to the number of students. Community Day Secondary Schools (CDSSs) are systematically less well endowed (in teachers and in ORT per student) than are Conventional Secondary Schools (CSSs).</td>
<td>Ensure more equitable teachers and resource allocation among secondary schools and in particular between CSSs and CDSSs (revise the allocation formula of ORT to include school environment and hardship).</td>
<td>$** Some resistance may arise because it may be difficult to force teachers to move from CSSs to CDSSs.</td>
<td>Inequalities in learning conditions among students will be reduced.</td>
<td></td>
</tr>
<tr>
<td>Economies of scale are possible in secondary education to improve efficiency.</td>
<td>The average school size in secondary schools is very low (212 students in secondary vs. 642 students in primary education). Economies of scale savings are possible by favoring bigger secondary schools (of more than 150 students).</td>
<td>Build new classrooms and deploy new teachers with priority given to the smallest secondary schools (in areas with a population density large enough to attract a sufficient amount of students).</td>
<td>$$/$ In the short-term, building new classrooms will be very costly, but mid-term it saves resources because a more efficient service delivery comes from economies of scale.</td>
<td>Secondary education service delivery will be more efficient.</td>
<td></td>
</tr>
<tr>
<td>Textbooks are vital to ensuring a good quality education. Labs in secondary school are very important to enhance effective learning in science.</td>
<td>All other things being equal, textbooks and labs are associated with better exam pass rates. The average number of textbooks per student is 3.7, but some schools have no textbooks at all. Only 23 percent of secondary schools have a lab.</td>
<td>Increase the number of textbooks and labs in secondary schools.</td>
<td>$$/$ Textbooks are not expensive. Labs are more costly.</td>
<td>The quality of learning will be increased.</td>
<td></td>
</tr>
<tr>
<td>The knowledge economy requires better human capital skills, particularly in scientific and technological fields.</td>
<td>There is a dramatic lack of secondary teachers in the sciences.</td>
<td>Pursue the program called Strengthening Mathematics and Science in Secondary Education (SMASSE).</td>
<td>$$/$ Measure already implemented. This was tested from 2004–2007 in the South Eastern education division. This is now being rolled out to the remaining divisions.</td>
<td>A higher quality general secondary education will emerge, more in line with the needs of the modern economy.</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
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Technical, Entrepreneurial, and Vocational Education and Training (TEVET)

Main challenges: i) Improve flexibility, coordination and clarify roles, ii) increase access, in particular for training focused on the informal job sector, iii) increase efficiency by revising the duration of the longest programs.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>A stringent and transparent TEVET qualification system provides the base for the testing and quality assurance of the TEVET programs, and quality benchmarks for TEVET providers. In order to ensure labor market responsiveness, qualification systems are usually built as outcome-based systems, founded on occupational standards that are set by experts from the world of work.</td>
<td>In Malawi, three parallel qualification systems currently co-exist—trade testing, Malawi (Advanced) Craft, and the TEVET Authority /Competency-Based Education and Training (TEVETA/CBET)—which all maintain their own assessment and certification structures. This is unnecessarily costly for students and government and hampers quality improvements at the school level. Two of the qualification systems can be considered outcome-based, however only the TEVETA/CBET approach is based on the updated demands of today’s market. The CBET approach developed and administered by TEVETA was initiated in the late 1990s to overcome the parallel qualification structure of Malawi (Advanced) Craft and trade testing. Instead, a third parallel qualification system has now been introduced in practice.</td>
<td>TEVETA, the Ministry of Education, Science, and Technology, and the Ministry of Labour agree on an approach to integrate all formal TEVET and the trade testing system under the TEVETA/CBET system to become the one and only national benchmark of recognized TEVET provision in Malawi.</td>
<td>$/ * Integration might affect vested interests in different ministries to maintain existing structures. Substantial financial gains can be expected from integration, as no parallel structures would need to be maintained. However, a universal orientation towards CBET qualifications will increase quality assurance costs by TEVETA for standard setting, certification, and accreditation.</td>
<td>There will be one recognized outcome-based TEVET qualification system based on occupational standards developed by experts from the world of work, applicable to all TEVET provisions, and in line with SADC standards. An indirect result will be an improved quality of training and a more well-trained Malawian workforce.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Situation in Malawi</td>
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<tr>
<td>Due to its provider and program diversity and multi-stakeholder nature, TEVET systems require an integrative and conducive governance structure. Such a structure would ensure effective stakeholder involvement, the articulation of different provider systems, and broad-based coverage of accepted quality assurance mechanisms. In many countries, this is reflected by the emergence of more or less independent, stakeholder-governed TEVET regulatory bodies in charge of regulation, facilitation, and quality assurance, while training provision and delivery remains with a variety of different actors in accordance with the needs of specific target groups.</td>
<td>The TEVET Policy of 1998 and the TEVET Act of 1999 assigned the regulatory and policy-making authority for the broad TEVET system to the newly created TEVET Authority (TEVETA). Stakeholder involvement is inter alia facilitated through the TEVET Board. However, TEVETA’s role does not appear to be unanimously accepted by all major ministerial stakeholders, as is shown in the parallel initiatives of standard and curriculum development and examination regulations. This lack of clarity about roles and responsibilities in the national TEVET system reinforces existing obstacles to the development of an integrated and labor-market driven TEVET system. It particularly affects training quality in a negative way as scarce resources available at the TEVET institution level are used to accommodate the different requirements, procedures, and standards of various authorities with regulatory functions.</td>
<td>Facilitate a clarification of roles and responsibilities in the national TEVET system, confirm or adjust existing policies and legal documents as needed, and ensure subsequent implementation.</td>
<td>$ **</td>
<td>Considerable opposition can be expected against an institutional reform that may reduce the scope of responsibility of existing institutions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$ **</td>
<td>There will be a functioning TEVET authority with broad responsibilities for the regulation, standard development, and quality assurance of the entire public and private TEVET provision.</td>
</tr>
</tbody>
</table>
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### Rationale

Against the very diverse educational and social backgrounds of TEVET target groups in Malawi, public TEVET resources should be used to support the development of flexible TEVET offers. These should accommodate a broad range of target groups and ensure access to disadvantaged groups in line with labor market demands. The new outcome-based TEVET paradigm (CBET approach) facilitates the flexibility of training approaches by integrating different learning environments under one outcome-based qualification system.

### Situation in Malawi

Regular (formal) TEVET programs, which are supported (very low tuition and boarding fees, privileged access to resources and quality assurance) through public budget allocations to Technical Colleges and subsidies from TEVETA, are de facto limited to rigid formal long-term training programs. These programs are mainly delivered as apprenticeship training and accessible only to senior secondary school leavers upon merit. Low educational achievers, including socially disadvantaged groups, have to find training opportunities in the open training market, which includes the parallel programs in technical colleges. With few exceptions, high fees are charged in this market. Only regular programs are properly facilitated and supervised. As a consequence, public resources and modern (CBET-oriented) TEVET management is serving a very limited group of relatively high-educational achievers—without deliberate social targeting—and leaving behind the large group of youth who left school before Form 4 and lack the financial means to continue (TEVET) education on their own.

### Policy Proposals

- Revise public (including TEVETA) subsidization principles to include a larger array of TEVET delivery modes (based on accreditation) that address a broader range of TEVET target groups.
- Introduce outcome-based subsidization principles.
- Systematically apply the CBET approach to parallel students and participants of other TEVET programs.
- **Financial Cost ($)**
- **Political Cost (*)**

**Expected Results**

- **Significant opposition among TEVET providers and other stakeholders against a broad based application of CBET is not expected.**
- It will be necessary to make substantial efforts to upgrade the competencies of technical teachers in order to adapt the new approach on a broad base.
- The regular apprenticeship system will lose its privileged status if public support is broadened for programs and target groups. The potential loss of privileges needs to be analyzed in the context of other educational opportunities. It may act to further reduce the attractiveness of TEVET among the better-educated.
- The public TEVET subsidization system will be based on training outcomes, open to a large range of accredited TEVET programs, and geared to defined social, economic and/or labor market targets.
- Target groups with different training and learning backgrounds will have a broad access to CBET qualifications.
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<td>The informal sector is an important employment destination mainly for TEVET graduates in Malawi. Labor-market responsive TEVET offers and delivery modes have to take the sector’s special requirements into account.</td>
<td>Recent research (tracer studies) have demonstrated that the informal sector is not only an important target labor market for TEVET graduates in terms of numbers absorbed, but also a rather attractive destination as incomes tend to be relatively high. The formal TEVET system, however, is still largely oriented on formal sector needs. For example, informal entrepreneurs are not targeted as cooperation partners in the formal apprenticeship training. The trade testing system is accessible and presents the most important avenue to formal skills certification for informal sector operators and traditional apprentices. However, the system’s standards are outdated.</td>
<td>Systematically incorporate the informal sector into TEVET as a target employment destination (with special modules oriented towards work in the informal sector); as apprenticeship providers (including in the formal apprenticeship system); and as a partner in TEVET planning (including labor market assessments). Revive previous activities to strengthen traditional apprenticeship training in order to increase quality and enrollment. Integrate trade testing with the CBET qualification system.</td>
<td>$/ **</td>
<td>There is a substantial history of TEVETA working with and for informal sector operators on which to build. Current informal sector activities by TEVETA need to be extended and approaches mainstreamed in the TEVET system. Some resistance expected among TEVET stakeholders to systematically integrating informal sector operators into formal training.</td>
<td>TEVET programs will be more responsive to the needs and conditions of the informal sector labor market. The quality and relevance of the TEVET provided in the informal sector will be increased.</td>
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<td>A flexible TEVET system of delivery modes and program duration ensures better targeting to specific competence and qualification requirements, in the labor market. A flexibilization, which may lead to shortened average training durations, increased cost effectiveness of the TEVET system.</td>
<td>The TEVET tracer study showed that no correlations exist between the duration of training and expected incomes. This means that graduates of four-year apprenticeship programs are not significantly better remunerated than graduates from shorter TEVET programs, suggesting that the market is not honoring the long-training duration that is common in the formal TEVET system.</td>
<td>Reconsider the predominance of four-year programs in the formal TEVET system in accordance with labor market needs for specific occupational areas. Provide incentives for flexible TEVET provision.</td>
<td>$/**</td>
<td>The four-year apprenticeship system has a long tradition in Malawi as the heart of formal TEVET. The system is getting more flexible with the introduction of the modular CBET programs.</td>
<td>Will provide flexible TEVET programs that are in line with labor market needs. Will engender the increased cost-effectiveness of TEVET and a larger enrollment (through lower unit cost via shortened duration).</td>
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## Executive Summary

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<td>Improve external efficiency with an updated labor market information system.</td>
<td>TEVET and higher education (HE) planning in Malawi suffer from serious data and information gaps about labor market needs and trends. TEVETA has recently initiated a labor market database; however, the analytical approach appears limited to occupational fields that target current TEVET programs. Tools to rapidly and cost-effectively identify new and emerging occupational fields and their training and qualifications are not yet in place.</td>
<td>Initiate development of a network between TEVETA, higher education institutions, investment planners, the Ministry of Labour, the National Statistics Office, and other potential partners with a concerted strategy to systematically and continuously assess labor market trends and related skill requirements.</td>
<td>$$$*</td>
<td>Any LMI approach in Malawi should focus on cost-effective methods to collect and analyze labor market data for TEVET (and HE) that relies on the appropriate analysis of available data and institutionalized discussions with industry representatives (industry panels), rather than focusing on comprehensive surveys and large database creation. Participation of TEVET institutions in acts (e.g., tracer studies) to improve the relationship between TEVET and the labor market at a grassroots level.</td>
<td>A cost-effective approach to observe labor market trends in operation will be implemented. There will be up-to-date labor market information to support TEVET (and HE) planning at the national level, as well as the program decisions of TEVET institutions and universities.</td>
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Notes:

$ No or low cost, $$: moderate cost, $$$: high cost

* Low political cost, **: moderate political cost, ***: high political cost
Higher Education

Main challenges: i) Increase access and equity, ii) increase cost-sharing with households and the private sector, iii) revise the structure of public universities’ expenditure, and iv) increase accountability.

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<td>Access to higher education is the lowest in the world, with only 64 higher education students per 100,000 inhabitants</td>
<td>Lack of investment in increased infrastructure and habilitation of the old infrastructure has constrained enrollments and the introduction of new programs in public institutions. Private institutions are still relatively new and small, although their contribution to enrollments and new programs is increasing. But they are set to play an increasingly important role in this sub sector.</td>
<td>Invest in infrastructure and in rehabilitation in order to increase enrolments and expand relevant programs and introduce new programs needed in the country. Establishing an open university (distance learning) as a more economic option to increasing access. Reviewing the current policy of offering loans to students in public institutions (which are already heavily subsidized) to include non-residential students and Malawi students in accredited private universities. Encouraging the private sector to invest in student accommodation near university centers as a way of increasing the amount of non-residential students. Introducing flexibility in the curriculum by adopting the credit-hour system. Exploring the use of the SADC Protocol on Education and Training in order to increase access, especially in specialist areas for which Malawi does not currently have capacity.</td>
<td>$$$/ * University education was provided by only public institutions until quite recently. UNIMA in particular, is now particularly constrained by increasing enrollments because of space and an old, dilapidated infrastructure. Addressing this requires a lot of financing at a time when the allocation share to higher education is already among the highest in the region. There is a need to develop a five-year phased rehabilitation and construction program based on the availability of resources. The establishment of private universities will definitely have an impact on enrollments, but this will be gradual because their source of financing is mainly through student fees.</td>
<td>Greater access to higher education will result in increased enrollment per 100,000 inhabitants. More programs will be implemented that address Malawi’s human resource needs and research will be conducted on Malawi’s socioeconomic and technological development.</td>
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<td>Reduce disparities at both the gender and the socioeconomic level and take people with disabilities into account.</td>
<td>Issues of equity are important for social, political, and economic stability. The Millennium Development Goals place great emphasis on equity issues, particularly in relation to gender. Malawi is signatory to many international and regional conventions that require equity issues to be addressed so that all citizens have opportunities to develop themselves and actively participate in national development. Gender disparities are huge in spite of affirmative action at UNIMA. The situation is particularly bad in science, engineering, and ICT. Over 90 percent of the students enrolled in higher education come from the wealthiest quintile. Regular students are heavily subsidized while non-residential students are not aided. Few institutions have facilities for students with physical handicaps.</td>
<td>Provide bridging courses to upgrade females to the required entry levels, especially for the targeted fields of science and engineering. Provide grants to girls in these targeted areas and explore the possibility of private-sector involvement in such a scheme. Increase bed-space for female students and prioritize accommodations for females in non-residential programs. Increase the enrollment of low-income students by addressing the shortcomings of the Student Loan Trust to ensure that it benefits the needy from low-income families, and by implementing a means-test on loan applications. Provide facilities for physically disabled students in the institutions.</td>
<td>Providing grants and expanding access to the Student Loan Trust will require moderate additional funding, but with good management and efficient recovery methods, the long-term cost will be small compared to the benefits to be derived. Introducing equity measures can only have positive political advantages.</td>
<td>An equitable higher education system will be in place, allowing all Malawians to have an equal opportunity to develop to their fullest potential. This would benefit the socioeconomic development of the country and aid in the alleviation of poverty.</td>
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<td>Increase cost-sharing, improve student loan recovery, and restructure expenditure priorities.</td>
<td>While higher education is critical to development, it is expensive and should be adequately funded if it is to achieve its stated objectives. Diverse and sustainable sources of financing therefore need to be explored. Public resources at this level should be used to fund the core functions of teaching.</td>
<td>Financing is highly dependent on subventions from government. This is clearly unsustainable, especially if enrollments are expected to increase and new programs are introduced. Student loans are almost never recovered although graduates can easily find well-paid jobs soon after graduation (there are very high individual rates of return). The expenditure in universities is concentrated on emoluments, administration, and student provisions at the expense of the core areas of teaching and learning materials.</td>
<td>Give universities latitude to charge higher fees and agree to regular reviews of fees. Improve the mechanism of recovery of student loans once graduates get a job. Diversify sources of income through more coordinated and accountable schemes of sale of products and services. Set minimum enrollment figures for courses to be offered in order to reduce unit costs. Have universities restructure their expenditure priorities so that they are aligned to their core functions of teaching. Set a limit of approximately 3 percent of total recurrent expenditure on management functions.</td>
<td>$$** Very little cost will be required by the universities in generating additional income. What they need is a mechanism that properly coordinates and manages the sale of products and services. Implementing cost-sharing and student loan recovery has a political cost as the public may complain about the increase in fees. These can be offset by having a properly targeted loan and bursary scheme.</td>
<td>Will create adequately funded and sustainable institutions where resources are efficiently used. More resources will be available to finance core functions once those able to pay are made to do so.</td>
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## Executive Summary

### Rationale

Good management is critical to the efficiency of any organization. The autonomy of higher education institutions is also critical to their success. Autonomy, however, also comes with accountability—especially in institutions that are heavily dependent on public resources.

### Situation in Malawi

Public universities are quite autonomous and the decentralization of management functions from the University Office of UNIMA to the UNIMA constituent colleges is underway. However, guidelines for implementing the decentralization were not developed and this has created problems in a number of areas.

Institutions have not established robust management information systems, and as a result data and information on many aspects of the universities are not readily available.

Institutions also lack performance indicators against which they can measure their performance and make themselves accountable for the resources entrusted to them.

### Policy Proposals

- Review university structure and governing bodies to determine whether there are financial and administrative advantages that can accrue from converting the UNIMA colleges into fully-fledged independent universities, in view of the decentralization that is already taking place.
- Expedite the passage of the Higher Education Act and the establishment of the National Council for Higher Education (NCHE). This is critical for maintaining standards and quality in higher education institutions.
- University councils should create guidelines for the roles and responsibilities of all stakeholders in the higher education sector and for the ongoing decentralization process at UNIMA colleges.
- Set up a monitoring and evaluation mechanism to assess the achievement of outsourcing objectives.
- Ensure that universities have accountability mechanisms based on good Management Information Systems and key outcome indicators to periodically assess their performance and support policy-decision making.

### Financial Cost ($)

- $: The policy options proposed are not costly as they require some reorganization of resources that are already available.
- $$: Converting UNIMA colleges into free-standing universities may have some political cost due to resistance but this can be overcome if there are benefits to be accrued, given that the decentralization process is already underway.
- $$$: Some resources may be needed for setting up Management Information Systems and training personnel in their use, but cost is low.

### Political Cost (*

- *: Low political cost
- **: Moderate political cost
- ***: High political cost

### Expected Results

- Will provide for a well-managed, effective, and efficient higher education system, accountable for its mandate to the public and consumers of the system.
- Information on operations and functions of the universities will be easily available and used for policy-decision making.

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<td>Make management of public institutions more accountable and more focused on reducing inefficiencies.</td>
<td>Good management is critical to the efficiency of any organization. The autonomy of higher education institutions is also critical to their success. Autonomy, however, also comes with accountability—especially in institutions that are heavily dependent on public resources.</td>
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1 The assumption used is that repetition rate will stay constant between 2008 and 2018; 20 percent of the students would be repeaters.

2 This figure includes all education expenditures from the Ministry of Education (MOE) and all other ministries outside of MOE.

3 For cross-country comparisons, the usual assumption is to estimate that 20 percent of global budget support goes to the education sector (that is, the average share for education in recurrent budgets in SSA countries).

4 This refers to the percentage of females passing against the number of females who entered the examination.