Collaboratively prepared by ADEA Working Group on Education Management and Policy Support
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Acknowledgements

This report has been produced on behalf of the African Union Commission by a five member Zimbabwe Pilot Study team representing the Ministry of Higher and Tertiary Education, Science and Technology (MHTEST), Ministry of Primary and Secondary Education (MOPSE), Zimbabwe National Statistical Agency (ZIMSTAT) and The Association for the Development of Education for Africa - Working Group on Education Management and Policy Support (ADEA WGEMPS). The report writing process was led by Tegegn Nuresu Wako (ADEA WGEMPS) who was supported by Takudzwa Nkomo (ADEA WGEMPS), David Chauruka (MHTEST), Idzai Gweme (MOPSE) and Tinashe Mwadiwa (ZIMSTAT).
### Abbreviations

<table>
<thead>
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<tr>
<td>ADEA</td>
<td>Association for the Development of Education in Africa</td>
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<td>AU</td>
<td>African Union</td>
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<td>EFA</td>
<td>Education for All</td>
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<td>EMIS</td>
<td>Education Management Information Systems</td>
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<td>ECD</td>
<td>Early Childhood Development</td>
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<td>HEXCO</td>
<td>Higher Education Examinations Council</td>
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<td>ISCED</td>
<td>International Standard for Classification of Education</td>
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<td>MHTEST</td>
<td>Ministry of Higher and Tertiary Education, Science and Technology</td>
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<td>MOPSE</td>
<td>Ministry of Primary and Secondary Education,</td>
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<td>NAC</td>
<td>National AIDS Council of Zimbabwe</td>
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<td>NFE</td>
<td>Non Formal Education</td>
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<td>OVCs</td>
<td>Orphan and Vulnerable Children</td>
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<td>PELS</td>
<td>Primary and Early Childhood Learning Services</td>
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<td>PoA</td>
<td>Plan of Action</td>
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<td>PTCE</td>
<td>Part-Time Continuing Education</td>
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<td>REC</td>
<td>Regional Economic Community</td>
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<td>TVET</td>
<td>Technical Vocational Education and Training</td>
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<td>TVSD</td>
<td>Technical and Vocational Skills Development</td>
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<td>VTC</td>
<td>Vocational Training Centres</td>
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<td>WGEMPS</td>
<td>Working Group on Education Management and Policy Support</td>
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<td>ZABEC</td>
<td>Zimbabwe Adult and Basic Education Courses</td>
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<td>ZIMSTAT</td>
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Executive summary

African Union’s Plan of Action (POA) for the Second Decade of Education is aimed at improving access to education and training, quality of education, efficiency, and relevance by 2015. Moreover, the PoA aspires to achieve a functional EMIS that reverses the current situation where many Member States lack statistical information for educational planning, monitoring and evaluation purposes. Fifty six indicators were selected by the AU’s Restricted EMIS Technical Committee\(^1\) to monitor the PoA, and at the end of the decade evaluate the progress made over time by comparing country achievements against the set targets.

However, over time new additional indicators were proposed to expand and deepen the monitoring of the Plan’s priority areas. The AU’s Restricted EMIS Committee decided that since many of these new indicators, and some of the existing indicators may prove to be challenging and not feasible at an international level, it was appropriate to pilot them in some of the AU countries, before including them in the overall monitoring framework for continent-wide implementation. See appendix 2.

The case study in Zimbabwe is intended to throw some light on the feasibility and appropriateness of these indicators. The Zimbabwean experience will be used to refine the initial Terms of Reference before the study is piloted in other countries. A five member team comprising of representatives from the Association of Development of Education in Africa (ADEA), Ministry of Primary and Secondary Education (MOPSE), Ministry of Higher and Tertiary Education, Science and Technology (MOHTEST) and Zimbabwe national statistical office (ZIMSTAT) undertook the study.

This study aims to encourage countries to pilot the new AU indicators by establishing if countries use some of these challenging indicators, or if there are favourable conditions to collect the source data that can be used to compile the indicators. The findings will be presented to the ministries, Regional Economic Communities, and eventually to AU Commission. However, as not

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\(^1\) ADEA is the secretariat to this committee composed of AU, regional economic community, country and development partner representatives. It meets annually.
much use has been made of these new indicators, the focus shifted to finding out if source data can be obtained in a reasonable cost-saving manner.

The field work involved group discussions with relevant departments in the two ministries of education, ZIMSTAT and five institutions which included an Industrial Training college, two polytechnics, one university and a teachers college.

The major findings relate to the issue of central coordination of national educational statistics. There are line ministries outside the two ministries of education (see appendix 3) offering education for which statistics are not collected through annual surveys, for example the 42 Vocational training centres under the Ministry of Youth, Indigenisation and Economic Empowerment, 8 colleges under Ministry of Agriculture. The registered institutions are not submitting statistics, due to the fact that they are not receiving the annual census questionnaire – and hence do not report statistical information to central body. Besides, there are schools/institutions that are not registered.

Collecting, collating and producing national education statistical information is a challenge as there is no a central over-arching unit to coordinate the process. This is particularly true for indicators related to monitoring the priority areas of Technical Vocational Education and Training (TVET) as much of the statistics for these sub-sectors do not reflect the education and training activities in the private sector. Through cooperation, effective registration and strengthening the capacities as well as links amongst private institutions and government ministries involved in education, this could be addressed and will ultimately enable the collection of comprehensive, timely and accurate statistics for the education and training sector.

In more detail the research undertaken reveals the following findings:

**Enabling Legal Environment**

Institutions registered as education and training institutions are required by law to provide statistics to government. There are regulations that require information from the districts and provinces under the Ministry of Education Sport, Arts and Culture for Primary and secondary education. All public schools, according to the general Ministry of Education circulars are required to follow guidelines on keeping basic school records that include pupil and teacher
attendance registers (circular no. 66, 30 January 1987) and student report cards (circular no. 67, 2 December 1987). Additionally private independent schools and colleges have obligations to provide records on their operations.

According to the Manpower Planning and Development Act, every teachers college, and technical or vocational institution, registered with the MHTEST are required to provide the Ministry with regular statistics on their staff, students, financial accounts and operations based on their institutional records. The legal status regarding the provision of information from training institutions under other ministries like Agriculture, Mining and Health is not clear.

It may be necessary to revisit these Acts and circulars to see if there is a need to identify gaps and amend the acts incorporating new ideas. More importantly ensure that all schools/institutions are made aware and implement accordingly. As new staff come and go, all teachers and lecturers must be oriented on the importance of the message these Acts convey.

National statistics on education and training are collected from line ministries by the Zimbabwe National Statistics Agency (ZIMSTAT) which is a corporate body that was established through the Census and Statistics Act of 2007. It is mandated to play a coordination and supervisory role within the National Statistical System. ZIMSTAT has the authority to certify and having been satisfied that all the quality requirements of good statistics were met designate any statistics produced in the country as official statistics

**Structural Environment: EMIS Coverage and Integration**

One of the challenging issues in the effectiveness of Education Management Information Systems (EMIS) is the lack of comprehensiveness of the available statistics. Many sub-sectors, such as early childhood development, non-formal education, and institutions within the private sector are inadequately monitored because of low statistical coverage. These sub sectors are not receiving a census questionnaire for the collection of data. Many of the ministries such as Health (MOH), Youth Development and Economic Empowerment (MOYDIE), Mining and Agriculture (MoA) all offer some form of education and training, and collect some statistics on their training institutions but there appears to be no mechanism for centralised collection of data.
Language

The aspect of language under the AU Priority Area of Gender and Culture has three selected indicators which include; Existence of African Language Policy, Percentage of pupils being taught using an African language as a medium of instruction and Percentage of Learners learning an African language as a subject.

It appears as if there is no concrete policy regarding African languages, but it was found out that the percentage of pupils being taught using an African language as a medium of instruction is not systematically monitored by MOPSE in schools. There is a policy that schools located in certain geographical areas where there is a predominant language group are being taught in the associated mother-tongue in the first three grades as per official policy.

While there are a number of indigenous languages in Zimbabwe, two local languages, Shona and Ndebele are used as a medium of instruction for the first three grades of pre-primary and primary. Therefore, English is the official medium of instruction. These two local languages are used in their respective areas where the languages are spoken. There are four other vernacular languages in the pipeline planned as a medium of instruction for the early grades.

Shona and Ndebele are compulsory subjects for the first nine years of schooling up to Form 2, depending on which language is spoken in the geographical area. From Form 3 onwards an individual has an option to take language of his/her choice up to tertiary level.

Population statistics on indigenous languages are not readily available in any of ZIMSTAT publications. A joint discussion with relevant ministries is needed to come up with mechanism to collect and probe the feasibility of obtaining such information.

Teacher attrition

Measures on teacher and lecturer attrition track the magnitude of teachers who leave the profession. According to the AU Indicator manual, Teacher Attrition refers to the annual national rate as a proportion of the total number of teachers. The institutions record those teachers who left the school or institution as part of “attrition”. This causes problem when aggregating the data at national level. Higher institutions collect data on attrition. However the format used in
the questionnaires do not include those teachers who are either promoted or transferred to other profession. Similar format is used by Ministry of Primary and Secondary Education which needs to be revisited. It is important to closely follow the responses to verify the quality of the incoming data. In Zimbabwe teachers employed by the government can be centrally monitored. Data on transfers, teachers promoted to other profession, those who resigned, dismissed, absconded, retired, or dead can be collected from human resources. The Human Resources department tracks the information closely. However, there is a need to computerise the human resources department of the ministry. Train professional on basic use of statistics and computers.

**Early childhood education**

Early childhood education is the foundation for the education system. The impact of good early childhood education is seen in all the levels up to graduation. The pilot indicators selected in this sector are mainly obtained from Zimbabwe National Statistical Agency (ZIMSTAT). The remaining three indicators on class size and repetition are to be obtained from the ministry of Primary and Secondary Education. However, the information collected by the latter is underestimated as the annual census does not cover private ECD institutions. The ECD department needs to liaise with the planning department on what they want to be incorporated on the ED46 form. Hence, cooperation is needed between the two departments responsible for the availability of comprehensive statistical information on ECD.

In Zimbabwe there is a national ECD policy requires primary schools to offer a minimum of two ECD classes for children from 3 to 5 years old (ECD A and B). In support of this policy, primary teacher training colleges are now training ECD teachers who receive certified diplomas in ECD from the University of Zimbabwe\(^2\).

*Technical and vocational education and training (TVET)*

Obtaining statistical information on TVET has always been a challenge. The current paradigm shift from TVET to TVSD (Technical and Vocational Skills Development) is even more daunting when it comes to statistical information for this sector. In Zimbabwe two path-way system of education are being implemented. Skills education is embedded in the system of education from

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\(^2\) VVOB Education for Development in Zimbabwe 2011
ECD to form 2, from form 3 onwards, students can choose their area of interests in practical subjects, together with the other academic subjects and pursue further education according to their choice and sit for the HEXCO examination for practical subjects administered by Ministry of Higher and Tertiary Education. Statistics are available from the same ministry on examination results.

There are polytechnic institutions, under the same ministry, for which statistics are readily available – collected on annual basis. However, other line ministries including the Ministry of Youth, Indigenisation and Economic Empowerment do not have an annual data collection system in place and hence do not provide statistics on regular basis. There is also no central body to coordinate data collection system among different ministries.

**Higher education**
Higher education is one of the eight themes in the AU Plan of Action for the 2nd Decade. It is critical to economic success and long-term development of Africa, a continent facing several challenges of growth and development on many fronts. The ministry of Higher and Tertiary Education has the mandate of regulating programs and activities in higher Education. Some Selected indicators under this priority area are obtainable through annual census questionnaires distributed to all government institutions. There is a need to collect more source data for some other indicators.

On Inbound and Outbound Mobility Ratios, there is no one source that can monitor those who go outside the country as students. Moreover, it is assumed that there are many who leave the country on their own initiative, hence it is difficult to monitor those outside the country. As for Inbound mobility, this information is obtainable from institution as this is covered by the annual census questionnaire. However, the current data collection instrument has to be modified to accommodate the information as required by SADC.

Challenges in completing the questionnaire are faced since some programs offered by universities are not classified according to ISCED levels. The cooperation between MHTEST and its institutions is encouraged for the comprehensive reporting on Higher Education at continental level which is affected by data blanks.
**Non Formal Education**

In Zimbabwe non-formal education includes Part-Time Continuing Education (PTCE) and Zimbabwe Adult Basic Education Course (ZABEC). The former is a program aimed at helping youths and adults to attend classes at existing formal schools so that they acquire the relevant certificates such as Grade Seven and Ordinary Level. The ZABEC programme is aimed at providing literacy and numeracy. This programme is in three levels. Level 1 is grade one to three, Level two is grade four to five then level three is grade six to seven, certificates are issued at the end of these programmes. However, the programme is completed at the shortest time frame possible, depending on the learner’s potential. There are private colleges under the department of secondary and non-formal education; these are categorized as non-formal institutions as they do not fall under government/mission or private schools. These colleges offer courses more or less similar to the formal education system. They are not an addition, alternative nor a complement to formal system to the definition.  

The job of compiling statistics is left to the department with minimal assistance from the EMIS unit of the ministry. The previously used standardized annual census questionnaire is no longer used to collect statistics on regular basis. There is a need to systematize the collection and processing of statistics for non-formal.

**Finance**

The information source on public expenditure on education goes beyond the two ministries of education. This is because, as indicated above, there are education institutions (government and non-government) that are not outside two ministries of education. Obtaining information on public expenditure on education requires the cooperation of the two ministries of education and Ministry of Finance and other line ministries. Moreover the involvement of many other institutions and ministries is vital.  

As regards AU pilot indicators, the three indicators suggested by EFA Observatory expert group adopted, namely indicators 7a, 7b and 8.
Overall Recommendations

1. Convene a meeting of all stakeholders\(^3\) to discuss and agree on the possible way forward for the coordination of national educational statistics information. This entails the collection of statistical information from all government and non-government institutions to a central point for reporting. Develop and update the directory of all educational institutions (public and private) in the country.

2. Maintain a national database on teachers and administrative staff from which the statistics on transfer, promotion, resignation, dismissal, abscondment, retirement and death can be monitored.

3. Discuss and develop a strategy to strengthen inter-ministerial linkages and cooperation to create favourable ground and to reinforce the building of national educational statistical information.

4. Developing an information system and database on scientific research and innovation by recording and outlining the funding available identifying gaps so as to mobilise support for potential funding from the private sector and donor community.

5. Create a national EMIS that coordinates sections of sub units (sub-EMIS) to shape national educational information for internal and external consumption.

6. Improving coordination between the ministry of finance and ministry of education as well as other departments within ministries of education to discuss and agree on how to compile information on education expenditure.

7. Ensures that resources are adequate for the national educational statistical programs, personnel, facilities, equipment, technology, training and financing of their education management information systems.

\(^3\) Comprising of all ministries of education, line ministries offering educational programs, ZIMSTAT and other relevant organisations.
Background

The African Union has a vision for an integrated, peaceful, prosperous Africa, driven by its own people to take its rightful place in the global community and the knowledge economy. Education is the major means by which Africa’s citizenry would be prepared for its key role in the attainment of this vision. It is the most important means we have at our disposal to develop human resources, impart appropriate skills, knowledge and attitudes. Education forms the basis for developing innovation, science and technology in order to harness resources, industrialise, and participate in the global knowledge economy. The first Decade of Education for Africa (1997-2006) responded to these challenges with focused activities on four priority areas: Equity and access to basic education, Quality, relevance and effectiveness of education, Complementary learning modalities, and Capacity building.

An evaluation of the first Decade revealed that most of the goals set in the Decade’s Plan of Action were not achieved in spite of valiant efforts by Member States. In recognition of the importance of getting it right, the sixth ordinary session of the Assembly of Heads of State and Government of the African Union adopted a resolution to launch a Second Decade of Education by endorsing the Framework for Action. The Framework was adopted by African Ministers of Education at the Second COMEDAF II Conference. The following priority areas were identified: Gender and Culture, Education Management Information Systems (EMIS), Teacher Development, Higher Education, Technical and Vocational Education and Training, Curriculum, and Teaching and Learning Materials, Quality Management and Early Childhood Development. Monitoring indicators for each priority area have been proposed to measure progress in the continent.

In realizing the importance of monitoring progress, the African Union (AU) requested countries to report on their implementation rates. The AU Observatory’s Restricted Technical Committee proposed 56 indicators to ensure standardized country reporting on the eight priority areas of the Plan of Action. The indicators were selected on the principle that they were relevant, comparable and readily available internationally. Subsequently, in July 2010, this committee proposed additional indicators some would need to be piloted to determine their feasibility and

4 Early Childhood Development was added latter.
value. Funding constraints have caused numerous delays in carrying out the pilot study as a result of this many of the new indicators were not used for the COMEDAF V reporting on progress of the implementation of the AU Plan of Action for Education.

COMEDAF V introduced new areas for monitoring in the Plan of Action which placed more emphasis on TVET and Non Formal Education as well as the Early Childhood Development. Additional indicators for the pilot have been identified to cover these priority areas. The selected indicators to be piloted were based on the principle that they are relevant, comparable and readily available at national level. It thus became essential to determine the feasibility, challenges and possibilities of collecting the proposed indicator through a pilot study. The study will eventually be conducted in five countries.

The pilot study in Zimbabwe was conducted by a five member team comprising of representatives from the Ministry of Primary and Secondary Education, Ministry of Higher and Tertiary Education, Science and Technology as well as ZIMSTAT and two members from ADEA. This study aims to encourage countries to pilot the new AU indicators and report their findings to ministries of education, Regional Economic Communities, and eventually to African Union Commission. The study also aims at assessing the feasibility and comparability of an indicator at national and regional levels before requesting all member countries to collect data on them. The process will begin with SADC and ECOWAS regions, hopefully expanding to other regions later.

Five institutions comprising of a university, two polytechnics, teachers college and a vocational training centre were selected for the study. Several departments within the ministries of education and ZIMSTAT were also selected for consultation purposes. It is hoped that lessons can be drawn from the Zimbabwe Case study on how to obtain source data for the indicators.

**Zimbabwe Education System**

There are two ministries of education in Zimbabwe. Ministry of Primary and Secondary Education (MPSE) formerly known as Ministry of Education Sport, Arts and Culture (MOESAC) and Ministry of Higher and Tertiary Education, Science and Technology (MHTEST), formerly known as Ministry of Higher and Tertiary Education. The country’s objectives and goals for the education and training sector are enshrined in the mission statements of the two ministries which read:
Zimbabwe's education system consists of 7 years of primary, 4 years of lower secondary and 2 years of upper secondary. National examinations are given at the end of each level administered by independent examination councils.

The ministries of education and several other line ministries regulate practical skills training programs at a variety of state and privately owned vocational training centers in the major urban hubs, while polytechnic training colleges cater for more advanced skills. There are higher education institutions in Zimbabwe offering diplomas and degrees. These include state and privately funded ones, like Women’s University in Africa, and a distance learning Open University.

In line with the 1999 Presidential Commission of Inquiry into Education and Training (CIET), the Ministry of Education, Sport, Art and Culture has adopted and is implementing a two-pathway education structure in all schools. Technical and Vocational Education and commercial/business subjects have been introduced to cater for the learner’s varying aptitudes, interests and abilities mainly at lower secondary level.

**Sample Selection**
The study team came up with five institutions to visit comprising of University of Zimbabwe, Belvedere Technical Teachers College, Harare Polytechnic, ST Peters Kubatana Vocational Training College and Kushinga Phikelela Polytechnic. All institutions are administered under the Ministry of Higher and Tertiary Education. Apart from the five institutions, several departments selected from both ministries and ZIMSTAT were included in the sample. Experts from the departments participated in the discussions.

**Methodology**
Preliminary leading questions were developed based on the TOR for the study prior to field work. The leading questions assisted the team in the focus group discussions with departments and institutions in gaining knowledge on issues around the indicators definitions and use. However the discussion was not limited to the leading questions but expanded to explore more information as needed. Additional questions were raised to clarify matters. The questions
helped in understanding the nature of source data for the indicators. The list of pilot indicators together with preliminary leading questions were distributed prior the group meeting.

Documents related to the pilot indicators were collected and reviewed. These included valuable circulars and Acts that clarified matters. Research papers, statistical reports, and data collection instruments and other literature were also consulted to get an insight of what other countries were doing in relation to some ambiguous indicators.

**Findings**

**Enabling Legal Environment**
Quality statistics are important for effective planning, monitoring, and evaluation of development programs at all levels of education. Statistics are obtained from schools/institutions, districts, provinces for reporting at national and international level. It is important that schools/institutions provide quality statistical information on time so that national summaries can be prepared, analysed and used for planning and plan implementation. It is a requirement for the institutions to submit necessary statistical information to the ministries according to the formats issued by the central ministry.

Some of the issues examined in this study were to review the documents that relate to legislation requiring institutions to report regularly statistical information to the central ministry. These include General Education\(^5\), Non-Formal Education, and Higher and Tertiary Education-Acts and Circulars.  

*General education circulars* – The circulars issued give clear guidelines for basic school records that include attendance register (circular no. 66, 30 January 1987) and student card (circular no. 67, 2 December 1987).  

The circular outlines the purpose of attendance register, the responsibility of teachers and head teachers in maintaining the register. The teachers prepare the register and check against the school’s admission register and verify. The head teachers are responsible to orient teachers (especially new teachers) and make sure that they understand the register and keep it safe and

\(^5\)
secure. Moreover the guideline underlines the importance of the register as a tool for national statistical analysis.

The student card is designed to provide a continuous and background information about the pupil including performance, health, extra-curricular activities, language use, sporting involvement and interests. It is one of the main records that allow the accountability of the school to parents, pupils and other parties. The health information on pupil’s record card is used for immunization programs and also indicates areas where interventions are required.

These are the two important documents at primary and secondary school level which play pivotal role for school statistics and report of statistics to higher level. The correct implementation of these records contributes greatly to quality statistics. However, these circulars and acts were issued long time back. There is a need to check from time to time if the current teachers are aware of the message conveyed by these documents and ensure that every teacher knows and implements them. It may be necessary to update these documents to reflect current demand and re-orient the Teachers and School heads.

Independent colleges – Statutory instrument 371/1998 – chapter III, under duties of responsible authority states that the responsible authority of a registered college shall keep and maintain record to provide information relating to running of the college. These colleges fall under Non Formal Education in Zimbabwe.

Higher and Tertiary Education – Article 17 of the Manpower Planning and Development Act discusses the maintenance of records at institutions. The article specifies that every registered teachers college, technical or vocational institution are required to maintain and furnish to the Permanent Secretary the training given at the colleges and keep register of lecturers or instructors and other records and accounts relating to college or institutions.

The same Act under article 68 – manpower surveys and plan - specifies the need to undertake surveys. It underlines the requirement to collect, compile and analyse statistical information that relates to or may facilitate any manpower plan. Moreover, the act details out several broad categories where statistical information is required. Section 59 – power to obtain information elaborates on the methodology that may be used to obtain information.
These legislations are binding for all schools and institutions and are vital for obtaining quality statistical information from schools and institutions. These laws clarify duties and responsibilities of individual institutions. It is important to make sure that every school/institution has a copy and make sure that every teacher/instructor or others responsible, have access to such important documents. Collecting statistics is a requirement for all as it is part of the national statistical system. This means all government and non-government schools and institutions are to abide.

**Recommendations**

It is important to make sure that these laws are disseminated to schools and institutions by

1. Encouraging institutions to have a strategy in place to ensure the sharing of the documents and to raise awareness of these laws among teachers and lecturers. Newly trained teachers/lecturers must be given an orientation on these laws.
2. Making sure that all types of schools/institutions – including universities and private colleges get a copy and they are made aware of the responsibility depending on which policy instrument applies to the institution.
3. Encouraging schools/institutions to maintain records and prepare tables based on the requirements shown in the annual census questionnaire.
4. These laws have been enacted long time back, it may be necessary to update it incorporating new demands to reflect current needs. For example polytechnics and universities are not mentioned in any of the above circulars or ACTs.

**Structural Environment: EMIS Coverage and Integration**

The word ‘integration’ is defined in this context as a creation of central management of education statistics which aims at full coverage of statistical information within one ministry or across line ministries and other sectors. Full coverage is a necessary step towards obtaining quality data that can be used to develop indicators to plan, monitor, and review of progress towards, national, regional, and international plan implementation.

One of the lessons learnt during this study was the realization of the need for an integrated EMIS system at different levels especially at country level. It is our firm belief that a strong country level EMIS system is a pre-requisite for the strength of the system at regional and continental
levels. However, it was observed that there are departments of the same ministry collecting statistics on their own with little or no involvement of the central EMIS in the same ministry of education. One example of this is the Early Childhood Development section of the ministry which collects its own statistics using its own data collection instrument⁶. The EMIS section of the same ministry also collects ECD statistics through the annual survey instrument – ED-46. This will result in duplication of effort on the one hand and lack of synthesized output on the other. Hence, the two (EMIS and ECD section) should work together to come up with a synthesized ECD statistical information.

Moreover, distribution of ED-46 does not cover private ECD institutions while the instrument from the department is used to collect data from all ECD institutions. Therefore, the EMIS unit and ECD section should sit together and discuss and agree on one format instrument to be used for annual ECD data collection. Moreover, they should share responsibility on the management of yearly survey administration, data processing, analysis, publication and dissemination. They need to make sure that all registered public and private institutions are all covered by the yearly survey.

Another sub sector of the same ministry is the Non-Formal Education which uses its own data collection instrument to gather yearly statistics. The ED-46 does not collect any information on NFE. Cooperation between the EMIS unit and NFE section of the ministry is needed so that they agree on the format to be used for data collection. On the whole, they should share responsibility on the management of yearly survey administration, data processing, analysis, publication and dissemination. It may be necessary to develop separate instrument for NFE because of the nature of non-formal systems.

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⁶ This is different from ED-46 which is centrally implemented and managed under EMIS.
Besides, there are government and non-government schools and institutions that are not covered by central data collection systems (see appendix 3). Examples are the 42 VTCs under Ministry of Youth, Indigenization and Empowerment, 8 colleges under ministry of Agriculture and Mechanization to name only a few. The responsibility to collect statistics from line ministries lies with Zimbabwe National Statistical Agency (ZIMSTAT). Also it was observed that ZIMSTAT acts on demands and that there is a committee formed comprising of members from two ministries of education and ZIMSTAT, but has failed to meet on a regular basis. Hence, there is a need to convene a joint meeting of stakeholders to discuss and agree on the way forward. The information that the ministry of Higher and Tertiary Education is in process of developing a policy regarding skills will be used as a feed into the above discussion.

The outcome on the above discussion can to be used to strategize and develop a methodology to get EMIS sub sectors into a comprehensive whole. This will ensure operational strength and quality of an EMIS. The absence of an integrated system that ensures full coverage of all educational institutions will be a challenge to get representative statistics for the country. This implies that any indicator development is equally curtailed. Lack of integration results in inaccurate statistical reporting, for example enrolment ratios are the most commonly used indicators for measuring progress towards the plan goal. In Zimbabwe, the calculations of these indicators do not take in to account the student population from private institutions and other line ministries. Hence these rates are currently under reported. The ideal initial step is to work toward integration of EMIS into one unified whole while at the same time starting the process to engage experts to develop necessary instruments for data collection and reporting for institutions and line ministries that are not covered by the current annual census instrument.

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7 Vocational Training Centres
On the other hand, many of these private institutions offering secondary as well as college level courses are not receiving annual census questionnaires. This implies that they are not sending annual statistics to the ministries of education as required. In some or all of these institutions teaching materials (e.g. Computers, desks, chairs, etc.) are shared between the levels. Some teachers teach both secondary and higher levels administrative staff cater for both levels. It may be necessary to develop a separate data collection instrument for private institutions. These issues can be discussed and resolved through discussion.

In 2011, a private college in Harare was visited for a short study on Tertiary Institutions Record Keeping Systems in Zimbabwe. It was discovered that the institution does not participate in the completion of annual survey conducted by both ministries of education. In addition to the regular courses, the college is engaged in the administration of correspondence courses offered by other colleges and universities like University of South Africa. On the number of graduates at college level, the institution found it difficult to provide statistics since there was no responsible person assigned for compiling statistics. Secondly, the institution has no records in place for graduates because the certificate goes to the individual students directly.

Finally the issue of coverage goes wider than one can imagine. Thanks to technology we have reached a time where home-graduates are increasing, students can enrol online in any university outside the country and graduate. The number cannot be negligible as there are several courses for different duration. These statistics are difficult to obtain and the researchers had to resort to ZIMSTAT surveys and initiate discussion on how to accommodate this type of statistics.

It is understood that the first task of this committee will be to come up with agreed upon data collection instrument based on national and international requirements. The best way to start is to start simple based on existing format used by the two ministries of education. It is important to note that each organization is able to collect statistical information necessary for its own use. This entails adoption of existing instrument for data collection for which the format and what is to be collected need to be agreed upon by all stakeholders. Private institutions and line ministries need necessary assistance and cooperation from ministries of education who have long experience and have technical expertise in this area of data collection and reporting.
Note that ZIMSTAT has embarked on an exercise of collecting data on all enterprises in the country a complete register for the sector is needed so that the questionnaire can be sent as soon as possible.

**Recommendations**

1. Convene a stakeholders meeting to discuss and agree a) on a way forward b) agree on central point where statistical data be reported.
2. Develop or update the directory of government and non-government registered educational institutions in the country.
3. Develop data collection instrument(s) based on existing information that comply with national and international requirement.

**Languages**

“A-18 African States recognize the need to develop African languages in order to endure their cultural advancement, and acceleration of their economic and social development. To this end, they should endeavour to formulate and implement appropriate national language policies.

“A-19 African states should prepare and implement reforms for the introduction of African languages into the education curriculum. To this end, each State should extend the use of African languages taking into consideration the requirements of social cohesion and technological progress, as well as regional and African integration.”

Language is used in communication and for the development of cultural knowledge and values. Moreover, language is a vital means for the creation of the world around us and the creation of personal and social identity. Furthermore, language plays a central role in education as the communication between students and teachers is done through the use of language. It is imperative that language used for instruction in the classroom is well understood by both teachers and students for effective communication to take place.

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8 Articles 18 and 19 of the Charter for African Cultural Renaissance
Research has established, beyond doubt, that mother tongue education has positive effects not only on the children’s linguistic and educational development but also that MTE is a strong predictor of children’s second language development\(^9\).

Researchers have arrived at similar results when it comes to the many benefits of using mother tongue education in primary schools. They also agree on the fact the MOPSE supports local culture and community participation in education and lower ethnic tension between communities. Some of these benefits are summarised below\(^10\).

1. Increased access to education,
2. Improved reading and learning outcomes,
3. Learning of second language becomes easier,
4. Internal educational efficiency – lower dropout rates, students are more confident and more likely to continue learning
5. Children’s self-concept and identity,
6. Increased parental involvement.

Researchers also agree that at least 6-8 years of mother tongue education is necessary before exiting to language two. They confirm that language education models that have been used for less than 5 years have not been successful (Alidiou et. al).

Countries who have implemented mother tongue based education have noted a little rise in initial cost. However, research has shown that implementing mother tongue education pays off in the long run. One great proof for initial increase of cost is the training of teachers, once trained teachers become an asset to the system with periodic updates when necessary.

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\(^9\) Cummings, J.
\(^10\) Improving Learning Outcomes through Mother Tongue-Based Education, RTI International
Moreover MTE will lead to considerable saving in the long run by removing “illiteracy” of children and having trained teachers\textsuperscript{11}.

The AU Technical Committee has three selected indicators which include; Existence of African Language Policy, Percentage of pupils being taught using an African language as a medium of instruction and Percentage of Learners learning an African language as a subject. These are under the priority area of Gender and Culture.

Language of instruction in Zimbabwe is English, at ECD level local languages are used as medium of instruction (Shona and Ndebele). In provinces where Shona is predominantly spoken – Shona is used as the medium of instruction in pre-primary and the first three years of primary grades. In provinces where largely Ndebele is spoken – Ndebele is used as a medium of instruction.

What happens when there are some Shona speaking children in provinces where largely Ndebele is spoken, or some Ndebele children in mainly Shona speaking provinces? This issue is recently addressed and preparations are underway to offer both languages in all provinces. However there is no concrete policy regarding African languages which makes it a challenge for the AU to use this indicator in Zimbabwe.

In primary grades and lower secondary grades (up to form 2) the two languages are given as a subject. Any student must choose one of the indigenous languages and take as a subject. This is compulsory for all students up to form 2. After form 2 (form 3 onwards), students can choose one indigenous language as a subject, as an option. However, the teacher uses English as a medium of instruction to teach.

There are four languages that have started recently. These are Kalanga, Tonga, Venda and Shangani

Data on languages has not been included in the annual census questionnaire. It has been observed that not much enthusiasm is there to collect data on languages from schools. However, the ECD department of the ministry

\textsuperscript{11} Skutnabb-Kangasunbar & skutnabb-kangas 2008
feels it is useful to do so. This issue was raised in the review meeting of the ED 46. However, consensus has not been reached on what to include in ED-46 about data on languages.

Problems encountered with the present definition of the AU indicators are as follows:

Breakdown information population by age and language group is needed for planning purposes. Besides, enrolment by age is required to obtained necessary indicators. This issue must be thoroughly discussed taking into consideration a number of factors that come in play: cost of engaging in such endeavour, statistical information on languages spoken in different provinces and districts, the manpower availability, especially teachers etc. It should be noted that collecting detailed statistics by language at this stage may be costly. It may be wise to start collecting summary statistical information disaggregated by sex.

Recommendations

1. Population by language group should be collected through census and projections should include language groups by age
2. The current mother tongue education medium of instruction be extended to the whole of primary grades of 7 years as recommended by many research findings.

Teacher attrition
The word is defined as “a reduction in numbers usually as a result of resignation, retirement, or death” Merriam-Webster online dictionary. The word can also refer to, according to the above dictionary, “the act of weakening or exhaustion caused by constant harassment, abuse or attack”.

Teacher burn out: Schwab et. al. 1986, define teacher burn out as a condition caused by depersonalization, exhaustion and diminished sense of accomplishment, quoted by Martin Haberman in the article “Teacher Burn out in Black and white”, the Haberman Educational Foundation, 2004, University of Wisconsin, Milwaukee.

The first issue to examine when addressing the issue of attrition (reduction in number of teachers) is to clearly define the term attrition – at least coming up with agreed-upon working definition for the term. At the beginning of this study we had the understanding that teacher attrition referred to ‘teachers who left teaching profession’. The question has always been ‘does everybody understand it the same way? if not what will happen?’ The international taskforce on
teachers for EFA\textsuperscript{12} has a similar definition. According to the above definition, teachers who are transferred or promoted to other disciplines (other than teaching e.g. Administration, management, planning etc) within the ministry of education constitute part of teacher attrition. See appendix 3 for a tree diagram depicting possible scenarios for teacher turnover. The phrase teacher turnover is used, in this document, to refer to all movement of teachers within the education system or teachers who leave the teaching profession.

Once an agreement has been reached on the working definition, one can proceed to identify, the level of education and the type of institution in which “teacher reduction” is becoming a problem. A review of secondary information that has been documented on the topic is also useful get an insight before the survey. For example, research has established that young teachers, teaching mathematics and science subjects are more likely to leave the teaching profession. (Ingersoll). Besides it has been established that attrition rates are higher in upper grades than in lower grades (Miron G. et al).

In other countries the word is used to refer to teachers who leave a school. Any teacher who has left school X is counted or adds to the category commonly used as ‘attrition’. If, for example a teacher joins another school in another location or in the same district, that teacher is still counted as part of attrition to the first school. On the other hand if a teacher resigns from, school X, the understanding is that he/she is a reduction to the school from which he/she has transferred from. This is acceptable if the data is to be used at school level only. However, aggregated data at district, province or national level are subject to error. In the case of Zimbabwe, attrition is correctly referred to, as when a teacher leaves the profession, due to various reasons.

Data collected with the above understanding cannot be aggregated at higher levels – district or higher levels for a simple reason that a teacher may leave a government school only to join a private college in another location within the same district or province. For example such data cannot be used to compare variations between districts or provinces. Similar arguments hold for those who absconded and dismissed as well. Moreover, there is no simple way of verifying those dismissed, absconded or resigned that they have abandoned the teaching profession all together.

\textsuperscript{12} Education for All
In Zimbabwe teachers employed by the government are monitored centrally. Hence there is fewer problems of aggregate data for quality. The question that needs further investigation is whether schools/institutions have the correct information on teachers. Special reference is made to how records are maintained at schools/institutions level. There are two ways to consider collecting data on teacher attrition. One way is to get the data from Human Resources department of the ministry. The other way is to collect from schools/institutions through annual data collection instrument. An agreement is needed as to which method is useful, accurate and cost saving. Either way a definition must be written clearly on the data collection for respondents to understand. See appendix 4.2

A teacher may opt to transfer to another school, this happens quite often especially between government and non-government schools. Is he/she a loss to the teaching profession? Efficient monitoring system will have to be in place to correctly identify where exactly a teacher has gone. The Human Resources Department of the ministry of education can trace the final destination of a teacher. In Zimbabwe there are teachers allotted to non-government schools/institutions and there are teachers who are employed by institutions. Data collection instrument must be designed carefully taking into account the different types and categories of teachers. Moreover, care must be taken to identify those teachers who are promoted to administrative jobs in the district, provincial education or national offices. Planners need such information on teacher attrition to be able to plan for the replacement of teachers.

In Zimbabwe teachers are usually hired centrally by government, schools can hire additional teachers as may be needed. Hence, teachers who are transferred, promoted, resigned, dismissed, absconded, retired or have died can be tracked down fairly easily if they are government employees and part of a registered school. The Human resources department of MOPSE can generate statistical information relating to transfer, promotion, resignation, dismissal, absconndment, retirement, and death for those teachers employed by the government. However, any one of the above category of teachers can be hired again in non-government schools/institutions. Hence, the tracking system should be for all types of schools/institutions and different categories of teachers. The problem is, the human resources department, has no computerised system in place and information is processed manually and hence takes time to put the statistical information together to be used for planning.

Hence, location, level of education, subject of specialisation, new teachers, type of institution all influence teacher turnover. Statistics can be collected on death. As for the other variables in the

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13 Both methods can be considered if resources are available
list further information is needed. Knowing about “transfer” alone is not enough unless one identifies clearly the final destination of a teacher. Identifying the final destination is not always easy, especially for schools/institutions, in the case of resignation, dismissal, abscondment, and retirement and hence subject to error. Finally, teacher attrition may not be a challenge altogether; some teachers may be ineffective in their work due to stress. It is better they leave than remain ineffective in their work. These teachers, if they remain on the job experience what Heberman called ‘burnout’. The system may be experiencing more of teacher burnout than attrition. Hence, the issue is to undertake sample survey to properly address teacher shortages. To improve conditions, teacher problems must be attended to closely in a continuum manner from recruitment to retirement.

**Recommendations**

1. Maintain a national database on teachers and administrative staff from which the statistics on transfer, promotion, resignation, dismissal, abscondment, retirement and death can be obtained.
2. Undertake a sample survey to establish where in the system the problem of attrition, burnout, or where ineffective teachers are noted.

**Early Childhood Development (ECD)**

ECD is an umbrella term for a variety of interventions centred on young children, their caregivers and families, including health and nutrition, childcare, education and parent support. It aims to improve children’s health, nutritional and psycho-social well-being, enhance educational outcomes, and produce more intellectually able, socially engaged and generally aware children.\(^\text{14}\)

Research has established that children who had pre-primary education perform better in their cognitive skills, motor skills\(^\text{15}\) and social skills than pupils who did not attend pre-primary education (N. R. Osakwe)\(^\text{16}\). Furthermore, research analysis has shown that children who attended pre-primary schools have better test scores in primary. The benefits include better graduation rates and improved lifetime earnings and reduced crime rates. Researchers have gone further and estimated the long term cost implication of these improvements. They have used the same to convince policy-makers.

The education sector in Zimbabwe recognizes that ECD education can contribute significantly to the nurture of young children at various levels, i.e. physical, social, emotional, intellectual,
cultural and spiritual. Since 2004, Zimbabwe has a national ECD policy which requires primary schools to offer a minimum of two ECD classes for children from 3 to 5 years old (ECD A and B). In support of this policy, primary teacher training colleges are now training ECD teachers who receive certified diplomas in ECD from the University of Zimbabwe. The current study focuses on the feasibility of five indicators which include: annual population growth rate, infant mortality rate, under 5 mortality rate, grade one repetition rate and fertility rate.

In Zimbabwe, the majority of indicators under this priority area which are related to health and nutrition are collected by the Zimbabwe Statistics Agency (ZIMSTAT) through the assistance of Ministry of Health and Child Welfare. As for education, the information is collected through the relevant units and departments such as the Primary and Early Childhood Learning Services (PELS) which is responsible for ECD. More cooperation is needed between the EMIS section and the department on the information needs which PELS require to be obtained by the ED46 form.

**Infant Mortality and Under 5 Mortality Rate**

Infant mortality rate and under 5 mortality rates are crucial in determining how many children survive after their first year of birth, up to the time they reach the age of five. This can help in ascertaining the provisions that can be made in terms of educational requirements for surviving children. The infant mortality rate refers to the probability of dying before the first Birthday, whilst under-five mortality rate is the probability of dying before the fifth birthday.

ZIMSTAT collects data on childhood mortality through household surveys and census surveys such as the Demographic Health Survey and the Multiple Indicator Monitoring Survey which is published after 3 years highlighting the trends in mortality rates for infants and children as indicated below:

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Neonatal mortality</th>
<th>Post neonatal mortality</th>
<th>Infant Mortality</th>
<th>Child Mortality</th>
<th>Under 5 mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child's sex</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>22</td>
<td>64</td>
<td>22</td>
<td>87</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>22</td>
<td>44</td>
<td>25</td>
<td>68</td>
</tr>
<tr>
<td>Mother's age at birth</td>
<td>&lt;20</td>
<td>28</td>
<td>55</td>
<td>26</td>
<td>79</td>
</tr>
</tbody>
</table>

17 VVOB Education for Development in Zimbabwe 2011
18 Multiple Indicators Monitoring Survey (MIMS 2009) ZIMSTAT
Neonatal, post natal, infant, child and under five mortality rates for the 10 year period preceding the survey, by demographic characteristics, Zimbabwe 2010-11

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Neonatal mortality</th>
<th>Post neonatal mortality</th>
<th>Infant Mortality</th>
<th>Child Mortality</th>
<th>Under 5 mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>27</td>
<td>24</td>
<td>50</td>
<td>24</td>
<td>73</td>
</tr>
<tr>
<td>30-39</td>
<td>32</td>
<td>33</td>
<td>65</td>
<td>24</td>
<td>88</td>
</tr>
<tr>
<td>39-49</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Birth Order</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>24</td>
<td>21</td>
<td>45</td>
<td>21</td>
<td>65</td>
</tr>
<tr>
<td>3-Feb</td>
<td>25</td>
<td>27</td>
<td>53</td>
<td>28</td>
<td>79</td>
</tr>
<tr>
<td>6-Apr</td>
<td>36</td>
<td>31</td>
<td>67</td>
<td>22</td>
<td>87</td>
</tr>
<tr>
<td>7+</td>
<td>-56</td>
<td>-33</td>
<td>-89</td>
<td>-30</td>
<td>-116</td>
</tr>
<tr>
<td>Previous birth interval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2 years</td>
<td>52</td>
<td>57</td>
<td>110</td>
<td>43</td>
<td>148</td>
</tr>
<tr>
<td>2 years</td>
<td>28</td>
<td>24</td>
<td>52</td>
<td>20</td>
<td>71</td>
</tr>
<tr>
<td>3 years</td>
<td>18</td>
<td>27</td>
<td>45</td>
<td>26</td>
<td>70</td>
</tr>
<tr>
<td>4+ years</td>
<td>31</td>
<td>25</td>
<td>56</td>
<td>25</td>
<td>80</td>
</tr>
<tr>
<td>Birth size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small/very small</td>
<td>73</td>
<td>-30</td>
<td>-104</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Average or larger</td>
<td>22</td>
<td>26</td>
<td>48</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

Note; NA= Not Applicable, The figures are recorded as the number of deaths per 1000

Source Demographic Health Survey 2011-2011 ZIMSTAT

Fertility Rate

Fertility is defined as the number of children a woman would have by the end of her child-bearing years. It is measured by calculating the number of live births per 1000 female population between the ages of 15 and 44 years for a given year.

The statistics agency through surveys collects this information. They collect information on the preferred number of children and the actual number of births per woman as indicated in the table below;

<table>
<thead>
<tr>
<th>Total wanted fertility rates and total fertility rates for the three years preceding the survey by background characteristics, Zimbabwe 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background characteristics</td>
</tr>
<tr>
<td>Residence</td>
</tr>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>Rural</td>
</tr>
<tr>
<td>Province</td>
</tr>
<tr>
<td>Manicaland</td>
</tr>
<tr>
<td>Mashonaland central</td>
</tr>
<tr>
<td>Mashonaland east</td>
</tr>
<tr>
<td>Mashonaland west</td>
</tr>
</tbody>
</table>
Total wanted fertility rates and total fertility rates for the three years preceding the survey by background characteristics, Zimbabwe 2010-11

<table>
<thead>
<tr>
<th>Background characteristics</th>
<th>Total wanted fertility rates</th>
<th>Total fertility rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matebeleland north</td>
<td>2.9</td>
<td>4.2</td>
</tr>
<tr>
<td>Matebeleland south</td>
<td>3.1</td>
<td>4.2</td>
</tr>
<tr>
<td>Midlands</td>
<td>3.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Masvingo</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>Harare</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Bulawayo</td>
<td>2.2</td>
<td>2.8</td>
</tr>
</tbody>
</table>

**Education**

<table>
<thead>
<tr>
<th>Education</th>
<th>Total wanted fertility rates</th>
<th>Total fertility rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>No education</td>
<td>3.7</td>
<td>4.5</td>
</tr>
<tr>
<td>Primary</td>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>Secondary</td>
<td>3.4</td>
<td>3.9</td>
</tr>
<tr>
<td>More than secondary</td>
<td>2</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**Wealth Quintile**

<table>
<thead>
<tr>
<th>Wealth Quintile</th>
<th>Total wanted fertility rates</th>
<th>Total fertility rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>4.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Second</td>
<td>4.3</td>
<td>5.1</td>
</tr>
<tr>
<td>Middle</td>
<td>3.8</td>
<td>4.4</td>
</tr>
<tr>
<td>Fourth</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Highest</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>3.4</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: Demographic Health Survey 2011-2011 ZIMSTAT

The information provided by ZIMSTAT through its surveys is comprehensive as this is classified by background information such as, province, urban- rural, wealth and education. This level of disaggregation would assist in the analysis of fertility rates by geographical location, wealth and education.

**Percentage of Under Five suffering from Stunting**

This indicator belongs to a set of indicators whose purpose is to measure nutritional imbalance and malnutrition resulting in under nutrition (assessed by underweight, stunting and wasting) and overweight. Child growth is the most widely used indicator of nutritional status in a community and is internationally recognized as an important public-health indicator for monitoring health in populations. In addition, children who suffer from growth retardation as a result of poor diets and/or recurrent infections tend to have problems in learning and attending school. Illness and death occurs because of a poor nutritional balance.
However, ZIMSTAT also collects this information through its surveys conducted regularly and the information is presented as indicated below;

<table>
<thead>
<tr>
<th>Background characteristics</th>
<th>Height-for-age</th>
<th>Weight-for-height</th>
<th>Weight –for-age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% below -3SD</td>
<td>% below -2SD</td>
<td>Mean Z Score</td>
</tr>
<tr>
<td></td>
<td>% below -3SD</td>
<td>% below -2SD</td>
<td>% above +2SD</td>
</tr>
<tr>
<td></td>
<td>% below -3SD</td>
<td>% below -2SD</td>
<td>% above +2SD</td>
</tr>
<tr>
<td></td>
<td>% below -3SD</td>
<td>% below -2SD</td>
<td>% above +2SD</td>
</tr>
<tr>
<td></td>
<td>% below -3SD</td>
<td>% below -2SD</td>
<td>% above +2SD</td>
</tr>
<tr>
<td>Age in months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 6 months</td>
<td>3.6</td>
<td>9.8</td>
<td>-0.3</td>
</tr>
<tr>
<td>6 to 8 months</td>
<td>3.1</td>
<td>13.6</td>
<td>-0.6</td>
</tr>
<tr>
<td>9 to 11 months</td>
<td>8.8</td>
<td>17.3</td>
<td>-0.9</td>
</tr>
<tr>
<td>12 to 17 months</td>
<td>10</td>
<td>30.3</td>
<td>-1.3</td>
</tr>
<tr>
<td>18 to 23 months</td>
<td>20.3</td>
<td>47.4</td>
<td>-1.8</td>
</tr>
<tr>
<td>24 to 35 months</td>
<td>17.9</td>
<td>48.5</td>
<td>-1.9</td>
</tr>
<tr>
<td>36 to 47 months</td>
<td>11.4</td>
<td>37.2</td>
<td>-1.7</td>
</tr>
<tr>
<td>48 to 59 months</td>
<td>5.5</td>
<td>25.9</td>
<td>-1.4</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12.5</td>
<td>35.7</td>
<td>-1.5</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>28.3</td>
<td>-1.3</td>
</tr>
</tbody>
</table>

Source: Demographic Health Survey 2011-2011 ZimStat

The data is disaggregated by age and levels against the standard deviation calculated according to the international standards. This information appears not to be user friendly as the rates and deviations are not easily available to some of the users of the data. There is need to produce this information in a format that can be interpreted by lay men.

**Grade One Repetition Rate**

Zimbabwe has a policy of automatic promotion in primary grades. However, there are repeaters for various reasons. The majority of repeaters in primary are OVCs. The ED46 form enables the collection of this indicator by gender and reasons for repeating the grade. This information can be used as the primary source of data which will facilitate the calculation of the repetition rate.
Recommendations
As measures to improve the collection, feasibility and compatibility of indicators at national and international level there is need for the following;

1. EMIS section of the ministry and ECD department should discuss and agree on what is to be included in the ED-46 and what additional statistical information can the department of ECD collect as a supplement

2. The two departments must work hand in hand during the implementation of the annual survey and make sure that every ECD institution has received the survey instrument and responded correctly on time.

3. The ministry needs to formulate and implement policies that require all ECD centres to be registered and to submit comprehensive statistics on time.

4. The EMIS section of the ministry should liaise with ZIMSTAT and correctly formulate the statistical information required from the latter on population as it is often needed on regular basis as this is needed to calculate indicators related to ECDs.

Technical Vocational Education and Training (TVET)

Technical and Vocational Education and Training (TVET) refers to education and training that prepares persons for gainful employment. In other words, TVET refers to deliberate interventions to bring about learning which would make people more productive (or simply adequately productive) in designated areas of economic activity (e.g. economic sectors, occupations, specific work tasks). TVET has the potential to enhance human capabilities and enlarge peoples ‘choices’.

The role of TVET in furnishing skills required to improve productivity, raise income levels and improve access to employment opportunities that has been widely recognized. Developments in the last three decades have made the role of TVET more decisive; the globalization process, technological change, and increased competition due to trade liberalization necessitates requirements of higher skills and productivity among workers in both modern sector firms and Micro and Small to Medium Enterprises (SMEs). Skills development encompasses a broad range of core skills (entrepreneurial, communication, financial and leadership) so that individuals are

19 The role of Technical and Vocational Education and Training (TVET) in Human Resources Development: The case of Tumba College of Technology (TCT)-Rwanda Ayuba 2006.
equipped for productive activities and employment opportunities (wage employment, self-employment and income generation activities)\textsuperscript{20}.

According to the UNESCO World Data on Education 2010, both ministries of education in Zimbabwe have components of TVET in the curricular from primary education to tertiary education. In the first two years of secondary education students are required to participate in at least one TVET subject, depending on their performance, students will consequently follow an academic or technical and vocational education path at ordinary level. Subjects studied include metal work, art, food and nutrition, fashion and fabrics, computer studies and building studies among others. Tertiary education is offered in vocational skills training centres, teachers’ colleges, Polytechnics, technical colleges and universities. TVET institutions offer skills training leading to a certificate, diploma, higher diploma and degrees. College courses last for one to five years while universities offer both full and part-time diploma and degree courses. National examinations for TVET subjects are administered by the Higher Education Examinations Council (HEXCO).

The majority of TVET is provided by both public, private formal and non-formal institutions, their quality and standards vary but their prevalence attests to the unmet demand for education and training in Zimbabwe. Skill training is also provided through enterprise-based or on-the-job training. Companies train their employees in company-own training schools or provide in-house training by hiring external trainers who tailor their courses according to company needs\textsuperscript{21}. Some other ministries offer skills training and these include; Ministry of Youth Development, Indigenization and Empowerment; and the Ministry of Women’s Affairs Gender and Community Development, while the Ministry of Health and Child Welfare offers several nurse training schools. This may be a challenge in relation to the collection of statistics on TVET with MHTE only compiling data for public institutions under their mandate.

In terms of the legislative framework governing TVET, the Manpower Planning and Development Act: 28:02 of 1984 (amended in 1996) regulates the management, operation and maintenance of TVET institutions, universities, teachers’ colleges and vocational training schemes. The Act promotes human resource development, including apprenticeships and certification for skilled

\textsuperscript{20} John Nyerere (2009) TVET Mapping in Kenya
\textsuperscript{21} http://www.unevoc.unesco.org/wtdbase_prev3.php?ct=ZWE
workers, establishes a training levy managed by ZIMDEF and outlines the functions of the National Manpower Advisory Board.

A total of eight indicators have been selected for the pilot under this priority area. However, data on fields of study for institutions under MHTE is collected through the annual census questionnaire used by MHTE. Hence all public TVET institutions under MHTE provide statistics on graduates using the format above by disaggregating data by data and level. However, institutions under various ministries outside education do not have a questionnaire for the collection data, as a result, reporting on TVET/TVSD remains incomplete. Hence, formulating indicators based on incomplete data will not take us anywhere near national picture.

The ADEA working group has started liaising with Ministry of Youth, Indigenization and Empowerment. There are 42 Vocation training centres under this ministry. As a result the Working Group has developed data collection instrument based on the existing instrument used by Ministry of Higher and Tertiary Education.

However, other ministries and institutions, besides the two ministries of education who are offering vocational training and skills development but there is no central body collecting statistical information from these other ministries. Thus there is a huge need for central coordination of data collection for TVET/TVSD institutions.

**Life skills**

“The abilities for adaptive and positive behaviour that enables individuals to deal effectively with the demands and challenges of everyday life” The World Health Organization, Module 7 life skills

WHO outlines the main components of life skills as critical thinking, interpersonal communication and coping and self-management skills.

**Critical thinking** – includes decision making and problem solving skills. Ability to evaluate the future consequences of present action as it relates to HIV and AIDS and the ability to determine alternative solutions. **Interpersonal communication** – these include verbal and non-verbal communication and active listening. The ability to express feelings and utilize feedback information including negotiation are included as part of life skills. **Coping and self-management skills** refer to self-esteem, self-awareness and self-evaluation skills.
UNICEF recognises the importance of skills but emphasises the relevance of content and method of delivery. The content referred to are areas such as HIV and AIDS, STI, sexual abuse or suicide prevention. Hence they recommend that all three will have to be in place to be effective: skills, content, and methodology for delivery.

The term Life skills in connection with alcohol education was defined as

“A Life skill is an approach to alcohol education that encourages the development of skills needed to make responsible and informed choices” International Centre for Alcohol policies

Life skills education was an approach used in connection with HIV education. Schools/institutions were encouraged to offer education that could help students become aware of the deadly disease and make informed choices. However, the field test has indicated that there are several interpretations of the term “Life skills”. The term took broader meaning including literacy and numeracy, vocational training and skills development and technical education. For this reason the term was grounded for some time until further clarification. Recently the UNESCO Global Monitoring & Evaluation Framework for Comprehensive Education Responses to HIV and AIDS has modified the use of the term to “Life skills-based HIV and sex education”. This will narrow the scope to some extent but still specific indicators need to be formulated through discussion. The above document has long list of proposed indicators which are currently being field tested.

In Zimbabwe there are few questions included in the annual school survey questionnaire. Some of the questions “how many have openly declared to be HIV positive” have raised concern. The National AIDS Council and the ministries of education need to discuss and come up with agreed number of indicators that can be collected through the annual schools surveys. The long list of indicators by UNESCO can be done through research study. The above study can be obtained from NAC when completed.

In order to produce information on TVET graduates, the ministry has to liaise with HEXCO which offers examinations to other bodies outside the ministry on the number of TVET graduates. It is
a challenge to access information on graduates from private institutions as they offer other examination boards such as City and Guilds and some are not registered, as a result the provision of reliable and accurate statistics is compromised. The MHTE has to come up with strategies to get statistical information from private institutions and other ministries. Data collection instruments need be developed from Afresh.

**Expenditure on TVET**
The main purpose of this indicator is to show the proportion of government expenditure on technical vocational education compared to the total expenditure on education. A higher proportion of government’s expenditure on TVET shows commitment of the government for the development TVET institutions.

In Zimbabwe, the ministry of finance is able to show expenditure of TVET/VTCs as it is the main body which allocates funds to different ministries and they are fully aware of how much is being given to other ministries that are involved in skills development. The education ministries according to the budget estimates for 2013, total expenditure for the two ministries of education in 2012 was shown in the Budget Estimates Book. However, there is need for cooperation with the ministries of education and of finance to get the actual expenditure.

Accurate enrolment figures and percentages TVET graduate are difficult to collect because there are other bodies outside MHTE offering TVET courses including companies who accept students on apprenticeship without the knowledge of the Trade Testing department. Inter-ministerial linkages are needed in order to be able to compile statistical on expenditure.

**Recommendations**

1. Close collaboration between the National AIDS Council and ministries of education is essential to agree on formulating indicators that can be collected through annual surveys and to share statistical information collected by each.
2. Promoting law enforcement mechanisms which require private institutions to submit statistics information and necessitate non-registered institutions to register.
3. Designing annual census questionnaires for institutions outside MHTE based on national and international requirements

**Higher and Tertiary Education**
Higher education is critical to economic success and long-term development of Africa, a continent facing several challenges of growth and development on many fronts. It provides
economic and social benefits, both to the individual and the public, produces qualified human capital, adapts and generates knowledge, promotes international cooperation and improves competitiveness in the global knowledge based economy\textsuperscript{22}. Under the African Union the Action Plan for Second Decade of Education in Africa, higher education, as one of the priority areas, has its goal encompassed in four thematic domains:

- Promotion of research and original knowledge production in higher education;
- Promotion, development and assurance of quality in African higher education in all its dimensions, including the development and ratification of regional and continental qualification frameworks (such as the Arusha Convention) to facilitate mobility of students and staff;
- Increased involvement of universities in the continent’s development efforts, including the development of the lower levels of education;
- Ensuring appropriate levels of funding for the Higher Education sector\textsuperscript{23}.

In Zimbabwe, this sector covers teacher education, technical vocational education and training under polytechnics and university education. Zimbabwe is a member state of the AU and part of COMEDAF. The Ministry of Higher and Tertiary Education, Science and Technology (Zimbabwe) has the mandate of providing an effective system for the production of competent high level manpower through the provision and accreditation of higher and tertiary education programmes and institutions for sustainability and global competitiveness. This is ensured through some of the ministry’s departments and units which are University Education, Manpower Planning and Institutional Development (responsible for teacher education and polytechnics), Standards Development and Quality Assurance (responsible for curriculum, exams and trade testing) as well as the Policy, Planning and Research. In this pilot study, few indicators were included to check for their viability. The findings are presented below. However, before detailed discussion on take up indicators, want to raise some problematic definitional issue

\textbf{Issue of definition}

Higher education is one of the eight themes in the AU Plan of Action for the 2\textsuperscript{nd} Decade. The plan document does not contain specific definition for higher education. The term “higher

\textsuperscript{22} Challenges of Higher Education in Africa and Lessons of Experience for the Africa - U.S. Higher Education Collaboration Initiative 2008
\textsuperscript{23} AU Outlook on Education Report Continental Repoerport 2012
education” is used in some countries while an equivalent term “tertiary education” is used in other countries with exactly the same meaning. For programs after secondary education but less than degree level programs, UNESCO uses the term “post-secondary non tertiary”. These are programs that prepare students for labour market or entry into tertiary education. Some the term “tertiary” refers to what UNESCO calls post-secondary and non-tertiary education. While the term “higher” education is used to refer to colleges and universities that offer courses at the level of first degree or above, there is a mismatch in the definition and this causes problems in the collection of statistics. Shared meaning is essential for mutual understanding.

Most of the nine selected indicators for higher/tertiary education can be obtained through the departments at the ministry in collaboration with the Computer and Statistics unit which distributes a census questionnaire every year to all government institutions. Challenges are faced in the collection of statistics due to definitional issues and some indicators in the questionnaire are not presented in the same way as the ICSED 97 definition has it. According to ISCED 97 sciences include; life sciences, physical sciences, mathematics, statistics and computing. There is need for institutions to refer to the broad fields of study as indicated by ISCED 97 for accurate reporting to national and international bodies. Issues on classification of fields of study need to be clarified at central level before the completion of questionnaires as this has impact on quality of data.

Reliable statistics for international reporting can only be obtained when all institutions have correct classification according to ISCED 97. Where clear classification is difficult, an agreement must be established through discussion. For example some institutions have science and technology together while others have science separate. Some have included environmental science under agriculture while others have it under science. ISCED 97 classifies physical geography under science while geography (except physical geography) is classified under social sciences. This may pause problems when institutions do not have the manual when completing the questionnaire. There seems to be an agreement that sport is classified under science. That is fine. However, it is necessary to check if all institutions classify sport under science.

24 Note that ISCED 2011 is in the pipeline for the following year.
In some cases social science is listed as a department under another faculty but in most cases social sciences is treated as a faculty on its own. Therefore, there is more work to do in this regard before feasible statistical information can be collected when ISCED 2011 is implemented. The aggregated data obtained under these circumstances will not reflect real situation. The indicator on “Percentage of female students in Science at tertiary Level of Education” can only be obtained when the above classification is put in order. Then correct statistics by gender can be collected. Enrolment by gender in science fields is not a problem to obtain once the data is collected and an agreement is established on correct classification.

The indicator “Percentage of students in Engineering, manufacturing and Construction fields at higher and tertiary Level of Education by gender” is another one affected by classification. This is manageable for polytechnics However; there are certificate and diploma courses in higher institutions. The duration of these courses is different from degree courses. A clear guideline is needed on how to treat the statistics in this situation. The following dummy table is included here for discussion and eventually for adoption. If agreed upon may be used for data collection. Note that the data collection instrument has to be modified accordingly to incorporate suggested changes.

These two indicators are meant to track the gender balance of women in the strategic and technical fields of work, given that the percentage of female students is high in the field of science the more likely the country is to see social equity and growth across gender in these fields of study. However, in polytechnics and vocational training centers there is a long list of courses offered. Harare poly alone has over seventy courses some of which are not easy to classify. Joint discussion is needed to agree on the classification and come up with guidelines for all to use.

**International Students by country of origin (mobility)**

On International students there is no one source that can monitor those who go outside the country to study. Moreover, it is assumed that there are many who leave the country on their own initiative, hence it is difficult to monitor those outside the country. As for Inbound mobility, this information is obtainable from institution as this is covered by the annual census.
questionnaire. The report from University of Zimbabwe has a table in which international students by country of origin is clearly presented.

Aggregated data for all universities was not ready at the time this report was compiled. However, the break down for similar data for staff is given by Zimbabwean or non-Zimbabwean. However the data is required by country of origin. Hence, the current data collection instrument needs to be modified accordingly.

Data for tertiary education (polytechnics, teachers colleges, and vocational training centers on international students are also collected. However, there are not many international students or teachers in these institutions. However the institutions can provide the statistical information according to the requirement.

### National examinations pass rates by gender

In Zimbabwe, there are three sets of examinations written in primary, secondary and high school. At primary level grade 7 examinations are written, then at secondary ordinary levels (O’ level), at upper secondary advanced examinations (A ‘Levels) are written. These examinations are administered by the Zimbabwe School Examinations Council (ZIMSEC). After O levels, a student has an option of continuing to upper secondary or enrolling at polytechnics, vocational training centres and teachers colleges. A pass at O level is a C grade or better. For one to have been considered as a pass one should have scored at least a C in five or more subjects including mathematics, a science subject and English language. Practical examinations for vocational subjects at O level are also offered by HEXCO. However, a student may enrol in a VTC when one has less than five subjects to do a National Foundation Certificate. At A level a student writes at least three subjects and must score at least an E in two subjects in order to have been considered as an A level graduate.

The information on pass rates is made available by ZIMSEC which publishes the overall pass rates through the media. In 2012 the national O level pass rate was 18.4 per cent, and for A

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>M</th>
<th>F</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namibia</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lesotho</td>
<td>31</td>
<td>36</td>
<td>67</td>
</tr>
<tr>
<td>Malawi</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Botswana</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Swaziland</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Mozambique</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Rwanda</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>43</td>
<td>82</td>
</tr>
</tbody>
</table>

Source: Annual Census Questionnaire for Universities 2012
level it was 82 per cent. It is difficult to get information on examination results by gender since this information is not easily available for the ministry. There is need for MOPSE to publish and disseminate this information on examination results including the necessary analysis to users.

1. **Amount of Research Funding in Higher and Tertiary Education in Science, and**
2. **Amount of research funding in engineering, manufacturing and construction**

These are defined as 1. Amount of research funding for science expressed as a proportion of total research funding in higher and tertiary education, and 2. Amount of research funding expressed as a percentage of total research funding in higher and tertiary education. Polytechnics and Universities conduct research, but the government does not specify fund allocation specifically for research, but institutions are empowered to allocate funds for research if they want. There is no amount allocated for research in polytechnics other than research undertaken by students.

Fruitless efforts were made to get interview appointment with University of Zimbabwe (UZ) which was one of the sample institutions. The annual statistics from UZ for 2012 were examined and research data for 2012 was clearly presented in detail. The report included total number of published works, collaborative research and research through partnership. Information on the amount of research could not be obtained. However, it is important to establish if amount of funds allotted collaborative and partnership research can be disaggregated.

On the other hand, there is the state owned Research Council of Zimbabwe and the Scientific and Industrial Research Centre (SIRDC), which has many other institutes under it, who receives grants form government every year for research but it is a challenge to access information on researches and funding.

<table>
<thead>
<tr>
<th>Faculty/school</th>
<th>Department</th>
<th>Researcher</th>
<th>Gender</th>
<th>Topic/Title</th>
<th>Name of Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td>T</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Annual Census Report - or University of Zimbabwe 2012*

At institutional level, the data collected on research is limited to amount of research done, and number of published research work in all faculties at the University of Zimbabwe. The format used is indicated in the table above;
Recommendations
The collection and interpretation of Higher Education indicators can be improved by

1. Include the above two indicators on the annual data collection instrument, especially for universities. Instruct all institutions particularly those responsible for the completion of the annual questionnaire to follow ISCED 2011 classification of fields.

2. Promote cooperation between ministries of Home Affairs and other line ministries so that the ministry of Higher Education can get statistics on students abroad.

3. Develop information database on scientific research and innovation at country level for all.

Non-formal education (NFE)

Definition: Non-formal education
“Education that is institutionalized, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/or a complement to formal education within the process of the lifelong learning of individuals. It is often provided to guarantee the right of access to education for all. It caters for people of all ages, but does not necessarily apply a continuous pathway-structure; it may be short in duration and/or low intensity, and it is typically provided in the form of short courses, workshops or seminars. Non-formal education mostly leads to qualifications that are not recognized as formal qualifications by the relevant national educational authorities or to no qualifications at all. Non-formal education can cover programmes contributing to adult and youth literacy and education for out-of-school children, as well as programmes on life skills, work skills, and social or cultural development”.

Source Definition: ISCED 2011 (http://www.uis.unesco.org/Pages/Glossary.aspx)

Non formal education is purposive but voluntary learning that takes place in a diverse range of environments and situations for which teaching/training and learning is not necessarily their main activity. The activities and courses are planned, but are seldom structured by conventional
rhythms or curriculum subjects. They usually address specific target groups, such as adults, out-of-school-youths\textsuperscript{25} and people who are in employment but do not have adequate skills.

The Ministry of Primary and Secondary has a section responsible for NFE under the Secondary and Non-formal education department. Zimbabwe has two NFE programs known as Part-Time Continuing Education (PTCE) and Zimbabwe Adult Basic Education Course (ZABEC). PTCE is a program aimed at helping youths and adults to attend classes at existing formal schools so that they acquire the relevant certificates such as Grade Seven and Ordinary Level. The ZABEC programme is aimed at providing functional literacy and numeracy, this programme is in three levels. Level 1 is grade one to three, Level two is grade four to five then level three is grade six to seven. Certificates are issued at the end of these programmes. However, the programme is completed at the shortest time frame possible, depending on the learner’s potential.

The definition given does not put clear demarcation between non-formal and formal education. However we know that it is an addition, alternative, or complement to the formal education. It does not apply continues pathway structure, but it is typically provided in the form of short courses. There are institutions that offer short courses (VTCs, Polytechnic, colleges, and universities). There are courses offered in block-release in the universities in which students’ commit themselves to the institutions for a short time and work on their own for the rest of the time. These are not counted in the statistics we collected from the non-formal education department. Moreover, there are private colleges who follow formal system but report to NFE department. Hence the question is where is the demarcation line between non-formal and formal education systems?

<table>
<thead>
<tr>
<th>Non-formal Education 2012, Zimbabwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>PTCE</td>
</tr>
<tr>
<td>AL</td>
</tr>
<tr>
<td>Ind. Colleges</td>
</tr>
<tr>
<td>ZABC Classes</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

PCTE=Part-time and Continuing Education
AL=Adult Literacy
Independent Colleges
ZABC=Zimbabwe Adult and Basic Course

There is a need for educational institutions to discuss details about different institutions and agree on the classification of non-formal and formal education systems. Moreover, the above definition can be interpreted differently in different countries. Similar discussion should

\textsuperscript{25} www.youthpass.eu/en/youthpass/for/youth-initiatives/learn/information/non-formal-learning/
establish working definition agreed upon by member countries to be able to arrive at shared understanding of the meaning of non-formal education. Moreover, the quality of statistics produced will improve greatly.

Data collection in MOPSE is undertaken by the Planning department using a few summary tables which have totals by gender and by province. The department had organised questionnaire in the past, currently this is no longer being implemented for some reason. Moreover, the ED-46 for primary and secondary cannot accommodate all information needed for NFE. The table shows a summary of what is currently collected by the department. Cooperation between EMIS and those responsible for data collection at the department level is essential to work together and properly address the NFE data collection systems. There is need the work together closely for a better result in obtaining detailed NFE statistical information. A feasible way forward will be to revive the previous questionnaire and implement.

**Literacy Rates for People aged 15 and over**

Data on literacy rate is obtainable through surveys conducted by ZIMSTAT which are made available to the public who require the information. The Labour Force Survey conducted in 2011 is a typical example which shows the literacy rates for people aged 15 years and above as indicated below.

Literacy rates are made available by gender and province, more information on literacy rates can be accessed includes literacy rate by age range from the age of 15 to 75 years and above. This information enables users to implement literacy programmes which are administered by the NFE section.

<table>
<thead>
<tr>
<th>Region</th>
<th>Adult Literacy Rate 15 years and above %</th>
<th>M</th>
<th>F</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manicaland</td>
<td></td>
<td>97.6</td>
<td>95.5</td>
<td>96.5</td>
</tr>
<tr>
<td>Mashonaland central</td>
<td></td>
<td>96.5</td>
<td>93.4</td>
<td>95.0</td>
</tr>
<tr>
<td>Mashonaland east</td>
<td></td>
<td>98.8</td>
<td>96.6</td>
<td>97.6</td>
</tr>
<tr>
<td>Mashonaland west</td>
<td></td>
<td>97.0</td>
<td>95.7</td>
<td>96.4</td>
</tr>
<tr>
<td>Matebeleland north</td>
<td></td>
<td>94.0</td>
<td>95.2</td>
<td>94.7</td>
</tr>
<tr>
<td>Matebeleland south</td>
<td></td>
<td>96.4</td>
<td>95.6</td>
<td>96.0</td>
</tr>
<tr>
<td>Midlands</td>
<td></td>
<td>97.2</td>
<td>96.3</td>
<td>96.7</td>
</tr>
</tbody>
</table>
Lack of clarity in defining NFE has caused formal systems to be under non formal systems. The issue of definitions affects many countries. Discussions can be initiated at REC level and an agreement be established. Regarding NFE statistical information, the EMIS unit and NFE department must work together and arrange for the revival of NFE ED46. Moreover a joint plan for data processing and reporting must be initiated by both departments. The cooperation is beneficial for both department and the whole ministry. Moreover, the cooperation reduces duplication of effort, and reduces wastage.

Recommendations
1. Revive and develop a separate ED46 questionnaire for NFE. Closer cooperation between the EMIS unit and NFE is needed for the implementation of the annual survey and data processing system.
2. Strengthening the capacities of NFE department staff and EMIS for survey administration and data processing through continuous capacity development.

Education Finance
The African Union through the Second Decade for Education in Africa is interested in measuring how much member states are spending towards education. There are three indicators which have been selected to track progress in terms of financing activities in education. These include; Public Expenditure on Education as a Percentage of Total Government Expenditure, Public Expenditure on Education as a Percentage of the Gross National Product and Public Expenditure on Education per student. In Zimbabwe, it is only possible to get accurate information on education expenditure under the two ministries of education. However, it is a difficult task to collect financial information from the other line ministries offering education and training. The

<table>
<thead>
<tr>
<th>Region</th>
<th>Adult Literacy Rate 15 years and above %</th>
<th>M</th>
<th>F</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masvingo</td>
<td></td>
<td>97.4</td>
<td>95.8</td>
<td>96.5</td>
</tr>
<tr>
<td>Harare</td>
<td></td>
<td>99.8</td>
<td>99.4</td>
<td>99.6</td>
</tr>
<tr>
<td>Bulawayo</td>
<td></td>
<td>99.5</td>
<td>99.8</td>
<td>99.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>97.8</td>
<td>96.6</td>
<td>97.2</td>
</tr>
</tbody>
</table>

Source: ZIMSTAT Labour Force Survey 2011

Table 1: An example of literacy rates for people aged 15 and over by province
data on expenditure and GNP can be obtained from both ministries of education and ministry of finance.

The indicators on finance which appear below are obtained from the Education For All observatory. These are

1. “Public expenditure on primary education as a percentage of total current education expenditure”.
2. “Public current expenditure on education as a percentage of total government expenditure”.

The intention in this study is to establish the availability of source data by level of education. Expenditure by level of education can only be estimated as there are resources commonly used between levels. Examples are the department head for primary and non-formal education is one person whose salary needs to be split between two levels. Another example is operation expenses like fuel. There is only one car for the department and a team is formed to visit educational establishments. That one car is used by a team from several different departments say: primary, secondary and non-formal. The expense for fuel has to be split between all departments that formed the team. Hence, expenditure by level of education can only be estimated at best. The other alternative is to use the budget as set by the central ministry. In any case the indicators on finance can be adopted as formulated by expert group of EFA observatory. They are list below

1. Public expenditure on education as a percentage of total public expenditure on education
2. Public current expenditure on primary education as a percentage of GNP
3. Public current expenditure on primary education per pupil, as a percentage of GNP per capita

Source: EFA Observatory: Education for All Indicators Expert Group meeting, UNESCO Paris, 2001

Generally, budget figures are made available through the budget estimates book which is published on an annual basis. The budget figures may be different from the actual expenditure. Nevertheless it can be used as a proxy to the actual expenditure. Information on government expenditure for both ministries of education is comprehensive as it is broken down into three categories which cover; Salaries, operations and public sector investment programs funds.
Current expenditure per pupil can be worked out if data on enrolment and expenditure is obtained. In the case of Higher and Tertiary Education breakdown can be obtained by institutions if needed.

**Recommendations**

1. Indicators on finance should be adopted from EBFA Observatory.
2. Collaboration between ministries of education and ministry of finance is essential to agree on and put together required data on finance.

**Limitations of the study**

The funds allotted for the study did not allow for a larger sample. Hence, some primary and secondary schools are not included in the sample. The committee members from ministries were very much occupied with regular jobs and had time to concentrate fully on the study. This has pulled back the pace of the study time on the one hand and did not allow more interaction within the committee on the other. Moreover, the team could not meet relevant authorities from University of Zimbabwe for discussion.

**Overall Recommendations**

1. Convene a meeting of all stakeholders\(^{26}\) to discuss and agree on the possible way forward for the coordination of national educational statistics information. This entails the collection of statistical information from all government and non-government institutions to a central point for reporting. Develop and update the directory of all educational institutions (public and private) in the country.

2. Maintain a national database on teachers and administrative staff from which the statistics on transfer, promotion, resignation, dismissal, abscondment, retirement and death can be monitored.

3. Discuss and develop a strategy to strengthen inter-ministerial linkages and cooperation to create favourable ground and to reinforce the building of national educational statistical information.

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\(^{26}\) Comprising of all ministries of education, line ministries offering educational programs, ZIMSTAT and other relevant organisations
4. Developing an information system and database on scientific research and innovation by recording and outlining the funding available identifying gaps so as to mobilise support for potential funding from the private sector and donor community.

5. Create a national EMIS that coordinates sections of sub units (sub-EMIS) to shape national educational information for internal and external consumption.

6. Improving coordination between the ministry of finance and ministry of education as well as other departments within ministries of education to discuss and agree on how to compile information on education expenditure.

7. Ensures that resources are adequate for the national educational statistical programs, personnel, facilities, equipment, technology, training and financing of their education management information systems.

**Conclusion**

A review of policy and statutory instruments is imperative in order to meet the needs of today’s world in terms of data provision. Moreover, it is important to make sure that all relevant authorities and institutions are aware of the importance of the instruments especially those responsible to put statistical information together at institutions for reporting. The study affirmed the urgent need for the integration of EMIS amongst all ministries offering education and training for the availability of timely, reliable and accurate statistics. A centralized body for EMIS would enable a comprehensive collection of statistical information on education.

Local languages are used as a medium of instruction at lower levels of education; more languages have recently been introduced in the curricula. In obtaining information on languages spoken by different ethnic groups, statistical information on population by language and by age is required.

The term attrition is understood differently by different peoples. This issue causes a problem for collecting statistics on teacher attrition. Hence, aggregating data at higher level will impact negatively on the quality of the data collected. The indicators under the priority area on ECD are available through ZIMSTAT and MOEASC PELS, the former collects indicators related to health and nutrition. They are obtainable and coherent to a greater extent.

Attainment of close and seamless coordination between several line ministries and departments offering education is essential to obtain integrated statistical information for the country.
Without a central body responsible for collecting statistics on TVET/TVSD from institutions outside the two ministries of education, the national statistics remains incomplete. Appropriate orientation and discussion is important to agree on some difficult classification issues when implementing the International Classification of Education ISCED 2011.

The collection of statistical information on Non-formal education should be organized and systematically collected through the implementation of separate ED46 for the sector and data processing system acquired.

The collection of indicators related to educational finance is only feasible through the engagement of the ministry of finance so that reliable and accurate statistics are availed. Hence, joint effort between the three ministries is needed to put together government expenditure or on education budget.

Building a robust and integrated EMIS across the various ministries and departments has been noted as a key recommendation to enable the collection of all indicators under the Plan of Africa for Second Decade of Education. This can be achieved through more cooperation as well as strengthening the capacities of institutions and government ministries involved in education. This enables the collection of comprehensive, timely and accurate statistics.
References

Language


Teacher Attrition

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ECD

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TVET/TVSD/VTCs


## Appendices

### Appendix 1: Departments and Sample institutions selected for the study

<table>
<thead>
<tr>
<th>S.n</th>
<th>Departments</th>
<th>Status</th>
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<tr>
<td>A.</td>
<td>Ministry of Education Sport, Arts and Culture (MoESAC)</td>
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</tr>
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<td>NFE department (MOESAC)</td>
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<td>2</td>
<td>ECD section</td>
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<td>3</td>
<td>Finance and administration</td>
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<td></td>
</tr>
<tr>
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<td>Examination section</td>
<td>Not ZIMSEC</td>
<td></td>
</tr>
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<td>Planning</td>
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<td></td>
</tr>
<tr>
<td>6</td>
<td>EMIS</td>
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<td></td>
</tr>
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<td>7</td>
<td>Registration of institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Human resources</td>
<td>✓</td>
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</tr>
<tr>
<td>9</td>
<td>Curriculum</td>
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<td></td>
</tr>
<tr>
<td>B.</td>
<td>Ministry of Higher and Tertiary Education (MHTE)</td>
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<td>Research</td>
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</tr>
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<tr>
<td>3</td>
<td>Planning</td>
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<td></td>
</tr>
<tr>
<td>4</td>
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<tr>
<td>5</td>
<td>HEXCO</td>
<td>✓ Higher Education Examination Council</td>
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</tr>
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<td>Breakfast meeting</td>
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<td></td>
</tr>
<tr>
<td>7</td>
<td>Registration of institutions</td>
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</tr>
<tr>
<td>8</td>
<td>Finance</td>
<td></td>
<td></td>
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<td>ZIMSTAT</td>
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<td>Request Census Data</td>
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<td>4</td>
<td>Census/sample survey sections</td>
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<td>D.</td>
<td>Sample institutions</td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>University of Zimbabwe</td>
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<td>Visit Department of languages</td>
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<td>2</td>
<td>Harare Polytechnic</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>Belvedere Technical Teachers’ College</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>St. Peters Kubatana</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Kushinga Phikelela Polytechnic</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

### Appendix II: AU Pilot Indicators
A. Gender and Culture: Zimbabwe has recognized sixteen languages including sign language\textsuperscript{27}. Two of these, Shona and Ndebele, are used as a medium of instruction for the first 3 grades of ECD\textsuperscript{28} primary in the locality where the languages are predominantly spoken. Moreover, the two languages are taught as a medium of instruction up to form 2 as compulsory subjects. From form 3 onwards the two languages given based on individual choice. There are four new languages to be introduced as a medium of languages for the first 3 grades of primary. Limited statistical data has been collected on languages. Population data breakdown by language is not available. There also seems to be no enthusiasm for collecting statistics on languages.

A.5 Existence of African Language Policy (still on the search)

A.6 Percentage of pupils who are taught using African language as a medium of instruction by gender

A.7 Percentage of students learning an African language as a subject

Collecting statistics on population by language appears to be sensitive. There is a need to promote advocacy, open discussions and lobbying for a general consensus before collecting statistics on languages. Some of us raised the issue of language at the time of reviewing the annual data collection instrument known as ED46. No one could buy into the idea. The issue was postponed.

On the other hand, to collect annual education statistics by language is demanding task because there is limited capacity within the ministries of education to carry out the task. For two languages alone the burden will be double for those who aggregate the statistics. Any increase in the number of languages will increase the load especially to EMIS staff. However, a basic minimum summary data on enrolment and teachers can be discussed and agreed upon. A question still remains to be answered.

1. What happens to those, Shona speakers, who reside in predominantly Ndebele speaking locality or Ndebele speaking in predominantly Shona speaking locality?
2. What statistics to collect? Further discussion and dialogue is needed to establish what statistics is necessary to collect for monitoring purposes.

<table>
<thead>
<tr>
<th>Officially recognized languages of Zimbabwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chewa</td>
</tr>
<tr>
<td>2. Shangani</td>
</tr>
<tr>
<td>3. Chibarwe</td>
</tr>
<tr>
<td>4. Shona</td>
</tr>
<tr>
<td>5. English</td>
</tr>
<tr>
<td>6. Sign Language</td>
</tr>
<tr>
<td>7. Kalanga</td>
</tr>
<tr>
<td>8. Sotho</td>
</tr>
<tr>
<td>9. Koisan</td>
</tr>
<tr>
<td>10. Tonga</td>
</tr>
<tr>
<td>11. Nambya</td>
</tr>
<tr>
<td>12. Tswana</td>
</tr>
<tr>
<td>13. Ndu</td>
</tr>
<tr>
<td>14. Venda</td>
</tr>
<tr>
<td>15. Ndebele</td>
</tr>
<tr>
<td>16. Xhosa</td>
</tr>
</tbody>
</table>

Source: Constitution of Zimbabwe, 2013

\textsuperscript{27}Draft Constitution of Zimbabwe, 2013

\textsuperscript{28}Early Childhood Development
B. EMIS – No indicators were selected for piloting under EMIS. We believe separate survey be conducted to establish the status of country EMIS. In the future we will develop a checklist of what is necessary to support the survey findings.

C. Teacher Development: Development is all round. Both quantitative and qualitative information is needed to monitor teacher development. Quantitative information alone is not enough to monitor teacher development. The indicators selected for this study is on teacher attrition discussed below. Some of the indicators listed below are suggested by Zimbabwe team. What is more important is to know why teachers leave the professions and gradually address these issues. The figure below summarises the reasons.

C.4 Percentage of head Teachers by gender- MHTEST has accepted and there is a plan to incorporate in to the annual census questionnaire. MoPSE has it already in ED46.

C.5 Percentage of Teachers by Age Range. The purpose of this indicator was to record country practice for comparison with other countries and possible recommendation of one format for all. MoPSE collects details of individual teachers which include date of birth (dd/mm/yy) from which summary on teachers by age can be tabulated. If all countries can adopt this format, a comparable data can be collected.

C.6 Teacher Attrition Rate- Both ministries of education collect data on attrition. The format used MOPSE is given below. The format used by MHTEST is similar to the one used by MOPSE but does not disaggregate by gender. The instruction given together with format below reads “attrition refers to a gradual, natural reduction in membership or personnel from the school”

C.7 Percentage of teachers by gender* - This data is available in most countries including Zimbabwe

C.8 Percentage of teachers who acquired higher qualifications within the past 5 years by gender*

C.9 Percentage of teachers on professional development to acquire a higher qualifications by gender *

C.10 Percentage of teachers with a first degree and above by gender*

* Note that the indicators C.7-C10 are additional suggestions by Zimbabwe team from MHTEST for use at country level. Although these indicators are rephrased a number of times, it is recommended that they be field tested before incorporating in annual census questionnaire.
There are more questions than answers on the issue of attrition. To some attrition refers to “teachers who left teaching profession”. Obviously leaving a school/institution does not mean leaving teaching profession. In Zimbabwe teachers employed by government are monitored centrally. Schools/institutions can hire teacher to fill the gap. Therefore, teachers who left the government payroll can still be hired by school or institutions. They are still in the profession.

On the other hand, aggregating data at national level is prone to error if one is not careful. A teacher who left school/institution in one location may join another school/institution in another location but still remains a teacher, say in non-government school. Therefore the definition of attrition must be agreed upon. Besides schools/institutions must have appropriate records of teacher turnover including those who are promoted to other jobs other than teaching.

Collecting data from schools requires maintaining proper records at level of school/institutions. They should read their records to fill the above format. Moreover, schools/institutions should have all information necessary about teacher turnover in the records. The other alternative, for Zimbabwe is to collect the above data from Human Resources department, which requires equipping the department with necessary technology and continuous training.

**D. Higher and Tertiary Education**: Higher Education is one of the themes in the AU Action Plan for the Decade. In Zimbabwe there is Higher and Tertiary Education. Our field visit to the university was not successful. On the appointment day, relevant people who could have given us the information needed were out of the city for another meeting. However we managed to collect statistics compiled for a report that was submitted to the ministry. We also managed to collect some returns from the other institutions. Hence the following comments are based on the above two sources.

**D.2 Percentage of science students in Higher Tertiary Education by gender**: This indicator may be obtained, however the annual data collection questionnaire specifies enrolment by departments and fields of study. Department may not be a substitute to fields of study. For example language department will have English, Shona, and Ndebele. Specific fields must be agreed upon for the study. On the other hand collecting all courses could be cumbersome as there are institutions who give over 70 courses. The quality of the data depends very much on how much the classification (ISCED 2011) is understood by respondents.

**D.3 Percentage of Engineering, Manufacturing and Construction students in Higher and Tertiary Education by gender**: This is similar to the above. If classification is clear to everyone responding to the annual census questionnaire, then it is not a challenge.
D.4 *International students by country of origin in Higher and Tertiary Education by gender:* This indicator is rephrased in accordance with what is in the annual questionnaire for data collection. The team believes that this way it is better than “Inbound ratio”. However the data collection instrument needs to be adjusted so that the above indicator can be obtained in the format required. The current format “Zimbabwean, Non-Zimbabwean” does not allow users to know the country of origin.

D.5 *Outbound mobility ratio* – cannot be obtained from available statistics. Information on students who are studying abroad is not collected. The argument is that there are many who go abroad on their own, so students on scholarship are only a small fraction of those abroad.

D.6 *Net entry rate into higher and tertiary education:* data on new entrants is not collected at the moment. Statisticians should aware that some colleges and universities have double entry programs. Clear instructions must be given when designing annual questionnaire.

D.8 *Amount of Research Expenditure in Higher and Tertiary Education for Science:* It was not possible to talk to the relevant person on this and the next indicator. However, what we gathered from the statistical report indicates that there are two categories of research undertakings: Collaborative research and research partnership. In theory it should be possible to obtain the amount spent on research. This is yet to be established.

D.9 *Amount of Research Expenditure in Higher and Tertiary Education in Engineering, Manufacturing and Construction:* similar argument as above

D.10 Percentage distribution of higher and Tertiary graduates in science by gender: See D.1 above

D.11 *Percentage distribution of higher and tertiary graduates in engineering, manufacturing and construction:* See D.9

D.12 *Distribution of higher and Tertiary enrolment by fields of study:* This indicator can be included in ACQ. However ISCED 2011 classification be used. Moreover selected fields must be agreed upon.

D.13 Lecturing staff by age range: see c.5 above

**E. Technical and Vocational Education and Training:**

E.2 *Life Skills:* This is a broad term that is very ambiguous. This confusing term was recognised by UNESCO who then modified it to “Life skills based-HIV and sexuality education”. UNESCO has also come up with long list of indicators that relate to life skills based-HIV and sexuality education, these are currently being field tested. The document is entitled Global Monitoring & Evaluation Framework for Comprehensive Education Responses to HIV and AIDS.

J1. **Enrolment in Technical and Vocational Education and Training as a percentage of the total enrolment:** Statistics on polytechnics is available as they are under the Ministry of Higher and Tertiary education. There is no statistics collected for VTCs in both government institutions and private institutions outside MHTEST. The WG on Education Management and Policy Support has developed a data collection instrument for the 42 VTCs under the ministry of Youth, Indigenization and Economic Empowerment. However, the collection of data has not been done.
J2. **Percentage of Technical and Vocational Education Graduates by field of study:** Theoretically the indicator can be computed if source data is collected. However, data from many institutions under many different ministries is not collected. Central coordination is essential.

J3. **Percentage of students graduating from Technical and Vocational Education:** Similar to j1 above. Data can be available if comprehensively collected. However, some of the students on attachment do not come back to graduate because they have acquired a job they cannot abandon. Coming back for two to three months for graduation is weighed against job security. Clear instruction is essential on how to handle students on attachment when designing the annual questionnaire.

J4. **Percentage of repeaters by gender:** This is a standard EMIS data collected through ED46 and the polytechnics instrument in Zimbabwe. However, there are not many repeaters in VTCs.

J5. **Percentage of dropouts by gender:** Data on dropouts is collected in Zimbabwe. Dropouts can also be estimated if repeater data is available. However, data on dropouts is inaccurate as a student who dropped from one school could join another school in different location.

J6. **Total Technical and Vocational Education expenditure as a percentage of total government expenditure on education:** VTCs and polytechnics know the amount of grant from the government. The amount can also be obtained from central ministry. However, there is a tendency to undermine salary of teachers because salary is administered centrally.

J7. **Number of Technical and Vocational Education establishments:** This data can be collected but nothing has been done so far.

J8. **Percentage of teachers/lecturers by qualification and gender:** This data is currently collected by both ministries but the format used must be compared before deciding to collect at higher level (eg. REC)

**F. Curriculum and Teaching & Learning Materials:** UNESCO (UIS) is undertaking study on the first two indicators below. The Working Group has agreed not to include in the list for piloting to avoid duplication of work. UNESCO has agreed to share the report of the study. Hence, these two are not included in the current list of pilot indicators.

  F.1 Primary Pupil-Textbook Ratio in Mathematics
  F.2 Primary Pupil-Textbook Ratio in Reading
  F.3 Percentage of schools/ institutions using computers for teaching*
  F.4 Percentage of schools/ institutions taking computer science as a subject*

The two last indicators (F.3 & F.4) are suggested by team from Zimbabwe. These two should be field tested to learn more about them.

**G. Quality Management:** The indicator below is a standard indicator used for many years. It is included here because some countries have begun questioning the usefulness of the indicator. As long as there are children of school age that are out of school the indicator remains to be useful for planners. Zimbabwe continues to use this indicator. This indicator is used to estimate children out of school.

  G.4 Net Enrolment Ratio:
**H. Early childhood Development:** The indicators selected for ECD are all available. The class size in the first two grades of primary and repeaters in grade one, are obtained from EMIS –MoPSE. All the rest are obtained from ZIMSTAT.

H.1  Annual Population Growth Rate of 0-4 Years  
H.4  Infant Mortality Rate  
H.9  Percentage of Under Five suffering from Stunting  
H.10 Class size in grade 1  
H.11 Class size in grade 2  
H.12 Under 5 Mortality Rate  
H.13 Grade One Repetition Rate  
H.14 Fertility Rate

**I. Non-Formal Education:** Expenditure on non-formal education can be obtained from the ministry of education.

I.1  Government expenditure on formal education as a percentage of GNP  
I.2  Government expenditure on non-formal education as a percentage of GNP  
I.3  Government expenditure on non-formal as a percentage of total education expenditure  
I.4  Literacy rate of aged 15 years and over

**Examination data:** There are two examination councils in Zimbabwe. The examination council of Zimbabwe (ZIMSEC) is responsible for examination data at grade 7, O-leave, and A-level programs. HEXCO Higher Education Examination council is responsible for higher level examinations in polytechnics and VTCs as well as examination for technical and vocational part of secondary education. Both councils determine the pass rates for their respective programs.— Ministry of Primary and Secondary Education has started collecting examination data from schools. It is cost saving to get the data from ZIMSECT if arrangements can be made.  

*National Examination pass rates by gender*  
Grade 7 examination pass rates by gender  
O-Level examination Pass rates by gender  
A-Level examination Pass rates by gender

**J. Finance:** The indicators suggested on finance were added by the working group. These were taken on board for piloting as they are difficult to compile. These indicators can only be estimated at national level. Expenditure data is late by one year or more. The main purpose was to see if separation by level of education is possible. This may be estimated, but it is difficult to get separate expenditure. There are employees who manage more than one level. Example is non-formal and secondary education departments are headed by one person. One car is shared between several levels especially at provinces and district level. The cooperation of several ministries offering education with the ministry of finance is necessary to come up with national figures. Therefore, the team recommends the three indicators used for EFA to be adopted. They are as follows.

4.  Public expenditure on education as a percentage of total public expenditure on education
5. Public current expenditure on primary education as a percentage of GNP
6. Public current expenditure on primary education per pupil, as a percentage of GNP per capita

Appendix 3: EMIS Integration

Appendix 2: EMIS Integration – a priority

- MoESAC: Ministry of Education Sport, Art and Culture
- MIHE: Ministry of Higher and Tertiary Education
- MoESA: Ministry of Education Sport, Art and Culture
- MoPS: Ministry of Public Service
- MoH: Ministry of Health
- MoYDIE: Ministry of Youth Development, Indigenization & Empowerment
- MoA: Ministry of Agriculture
- MoLC: Ministry of Local Government
- MoWA: Ministry of Women’s Affairs, Gender and Community Development

African Chanter of Statistics
NSDS
National Education Statistics

* Data Committee
* Breakfast meeting
* Skills policy being developed
Appendix 4.1: Teacher Attrition

**Tree Diagram: Teacher Attrition**

- **Transfer**
  - Within MoE
  - Outside MoE
- **Promotion**
  - Within MoE
  - Outside MoE
- **Resignation**
- **Dismissal**
- **Abscondment**
- **Retirement**
- **Death**

**Teacher Attrition**

- **Could be hired as a teacher**
- **Left teaching for good**

**Is attrition an issue?**
Quick survey/Piggybacking?

**Level of aggregation**

- Schools
- Districts
- Provinces
- National

**How about teacher burnout?**

Teacher Turnover is not always a bad thing!

In addition to statistics on attrition, periodic survey is necessary

Teacher Development from Recruitment to Retirement!

Data availability is dependent on how well records are kept at the level of school/institution

**Note: Factors to consider**

1. New Teachers
2. Level of education
3. Subject of specialization
4. Level of aggregation (School, District, Provinces, national)
5. Part time/full time teachers
6. Government/Non-government teachers
7. Time factor
8. Type of institution/Government/Non-Government
### Appendix 4: Teachers who left teaching profession

<table>
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<tr>
<th>No</th>
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<th>Transfers</th>
<th>Promotion</th>
<th>Dismissal</th>
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<th>Retirement</th>
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<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
</tbody>
</table>

#### Note:

1. Transfers are of two types: 1. those who remain teachers in their new post; and 2. Those who are transferred to other non-teaching post; Note that the second category includes those who leave teaching post but remain in the same institution.

2. Some teachers get promoted but still remain as teachers (e.g., Assistant lecturer becomes a lecturer); 2. Those teachers who leave teaching profession altogether. Note that the second category could still be working in the same institution (e.g., As planner or administrator).

3. There is no guarantee that a dismissed teacher from location X is not hired as a teacher in location Y.

4. Abscondment - little is known about absconding teachers other than may be hearsay. Chances are that they may be hired as teachers in another location eg. Non-government institution.

5. Resignation and retirement - these teachers can also be hired in another institution.