VET Policy Documents

Financing – Costing Report

Private Sector Development Program Georgia
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Content

Executive Summary

The public VET centre system in Georgia being currently financed mainly by public funds is challenged by two, though contradictory, conditions from its environment: at one hand, the VET systems lacks still sufficient financial support for carrying out occupational trainings accordingly. At the other hand, efficiency and market conformity of the VET system in Georgia needs to be improved in order to meet demands from both potential employers and trainees. Increased market conformability is envisaged by the introduction of voucher-based reimbursement and funding schemes.

In this regard, this study presents a triple approach: first of all, a suitable calculation model in order to analyse the share of direct and indirect costs per trainee and occupation will be outlined. It will be of particular interest to analyse those directly incurred costs with a maximum of precision, i.e. including features like energy costs, costs for material needed for training, different trainer salaries, differentiation between capital and regions. The methodological tool for cost calculation was used in practice, i.e. at 15 different VET centres throughout Georgia costs incurred by training activities were screened, assessed and grouped by applying a detailed appraisal and differentiation between training-related direct costs and indirect cost.

Therefore, secondly, this study presents a detailed outline and description of cost structures incurred by various preselected occupational training at diverse VET centres. Concrete figures about the currently incurred costs per trainee, per institute and per VET curriculum at various VET centres are provided and commented.

Thirdly, the study presents ideal-typical costs for the occupations assessed and can thus at a later stage be used as calculation base for future VET financing calculations, e.g. voucher-value appraisal. Ideal would be a further cost calculation based on aligned outcomes of VET, thus clearly defined, equal occupational standards. Additionally, higher costs though not being traceable at VET centres have to be implemented in further calculatory procedures. At most VET centres the unavailability of funds has led to a tendency towards underrating investment and maintenance costs, particularly maintenance of premises. While designing ideal-typical cost structures, particular attention has to be paid to the inclusion of investment costs, particularly those for long-term investments in and necessary maintenance of the VET centres' owned edifices. Otherwise, both sustainability and success of the future VET financing system cannot be ensured.

It would, indeed, be advantageous if the future voucher system could be founded on an outcome-based VET system.

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Abbreviations

GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
IDP	Internally displaced persons
MoED	Georgian Ministry of Economic Development
MoES	Georgian Ministry of Education and Science
MoF	Georgian Ministry of Finance
PSDP	Private Sector Development Program Georgia
USAid	United States Agency for International Development
VET	Vocational Education and Training

1 Introduction

1.1 Generic framework for the consultation task

Functional structures and market-oriented course schemes in Georgia's VET system have been identified an important contributor to the country's economic development over long-term. Georgia's economy faces a, still increasing, lack of qualified workforce in both blue- and white-collar occupations, resulting from a long-term decline in institutionalised vocational education and training. This decline over a longer period has, most probably simultaneously, led continuously to a decrease of the VET system's reputation, particularly among two major stakeholders: employers at one side and young people, i.e. potential trainees, at the other. Consequently, the implementation of a demand-driven, efficient VET system providing sound and useful skills training seems urgent in both economic and socio-demographic dimension.

In this regard, GTZ's Private Sector Development Program Georgia (GTZ-PSDP) envisages a rather holistic approach in order to facilitate system development processes among stakeholders relevant for Georgia's VET system. That holistic approach contains interventions at the macroeconomic layer of the current VET policy implementation systems. Firstly, decision makers at policy level shall be provided with sound recommendations in order to ensure and facilitate improved market conformability of the current VET system. Secondly, costing structures incurred by the current VET system shall be analysed. And thirdly, budgetary processes in order to guarantee physically VET activities shall be assessed.

GTZ-PSDP approached PLANCO Consulting GmbH, Hamburg, in order to develop and design appropriate cost analysis instruments and provide GTZ-PSDP with a consistent overview about costs structures at diverse VET institutes in Georgia incurred by carrying out a selected range of occupational trainings. It is, therefore, the scope of this present study and its related research to analyse, assess and define costs for VET programs undertaken by various VET institutes throughout Georgia, being located both in Tbilisi and outside of the capital. Based upon this analysis of currently incurred costs, PLANCO is able to develop a, though exclusively virtual, ideal-typical VET centre which might serve as a possible benchmark for future voucher-value appraisal and calculation.

The detailed tasks to be undertaken by PLANCO are as following:

1. Proposal for selection of VET centres to be interviewed
2. Development of appropriate Excel-based cost calculation tool in order to guarantee sound and efficient data collection
3. Development of sound calculation models for assessment and appraisal of collected data from selected VET centres
4. Advice for preparation of selected VET centres for interviews, e.g. proposal and generation of appropriate text blocks for preparatory information sent to VET centres, definition of personnel involved in interview process
5. Carrying out interviews at selected Georgian VET centres in co-operation and alignment with MoES incl. visual appraisal of relevant training facilities and stations
6. Training the local MoES team in the utilisation of the data base

7. Assessment and appraisal of collected data
8. Calculation of various cost positions and structures, particularly direct costs related with specific occupational training programs
9. Synthesis and presentation of major implications following the cost analysis for proper and sound voucher design and calculation

Given the broad scope of this analysis task, PLANCO Consulting GmbH seeks to apply a consisted team work approach in order to ensure best performance practices, thus sharing key responsibilities and task among various team members and relying on a diversity of experiences and competencies. PLANCO has proven during previous projects successfully this team-work based tactic.

Mr. Oliver Ahnfeld provided the cost assessment analysis work with his proven competencies in designing adequate data base solutions containing both sufficient flexibility and reliability to guarantee appropriate comparability and fit to the diverse situations on Georgia's VET centre ground. Given his long-term experiences in VET system development and VET financing, it was the responsibility of Dr Gunnar Specht to link the design and implementation of VET-related cost analysis to the parallel ongoing research of VET financing policy and introduction of a voucher system in Georgia. Mr. Ansgar Cordier's role was to interview in co-operation with the local MoES team the VET centres' representatives in order to define, collect and group relevant data to make them applicable to the cost-assessment tool.

It has to be mentioned that the findings and opinions outlined in the report are not representative for GTZ's overall approach to the reform of Georgian VET system. They are, contrarily, result of the cost-focused research at 15 preselected VET centres and therefore the point of view of the present report's author.

1.2 Time outline of the analysis incl. preparatory and wrapping-up steps

1. Fact-finding discussion between: 16/17 Feb. 2010
   - MoES
   - GTZ-PSDP
   - Representatives of selected VET centres
   - Representatives of other stakeholders (MoED, employer)
   - PLANCO

   Topic of discussion:
   Presentation of cost-assessment model, negotiation about additional cost analysis elements and agreement about interview process

2. Development of cost-assessment data base incl. tool for interviews in the VET centres — Late Feb./early Mar. 2010
   - PLANCO in co-operation with GTZ-PSDP and MoES

3.	Selection of VET centres to be interviewed and occupations • MoES in co-operation with PLANCO • Under guidance of GTZ-PSDP	Late Mar. 2010
4.	Information of the selected VET centres about content, goals and objectives of the cost assessment study by a standardised letter • PLANCO in co-operation with MoES	Late Mar. 2010
5.	Preparatory workshop with local MoES team in order to define time schedule for interviews	30 Mar. 2010
6.	Interview phase	31 Mar. 2010 – 16 Apr. 2010
7.	Data assessment	Apr. 2010
8.	Presentation of major findings at GTZ head office Eschborn • GTZ (P+E) • Mr. Werner Heitmann (ESDS) • PLANCO	4 May 2010
9.	Presentation of major findings and implications to important stakeholders of Georgian VET system, i.e. MoES, selected VET centres, employers' organisations, relevant donors etc.	18 May 2010

2 Overall background and preconditions for analysing costs at Georgian VET centres

2.1 Current finance structure in Georgian VET – shortcomings and challenges

The Georgian government, which is currently the most important financial stakeholder in the applied VET system, intends to change the basics of VET funding from a supply to a demand driven approach. At the moment, funds are allocated to VET centres based on budgetary figures. The government as such is by far the largest funding body of institutionalised VET. According to institutes' reputation and/or the perceived attractiveness of a specific training program, this governmental funding can be combined with students' fees and contributions from employers. VET centres tend obviously to offer long-term courses in order to ensure constant and longer funding (cit. Heitmann, 2010). Trainees, i.e. the targeted beneficiaries of VET initiatives, however, show too often very limited initiative to participate in those long term courses. A, sometimes extreme, rate of absence could be observed at various VET centres at all levels and throughout diverse regions, Tbilisi included. Consequently, public funds basically intended to provide young people with meaningful and relevant vocational training tend to be spent without achieving the intended target efficiently.

Consequently, GTZ-PSDP envisages through its holistic approach to achieve both increased efficiency of public VET funding and higher market-conformity of proposed and provided VET programs. In this regard, a triad of levels for further activities was designed and became a shared vision among relevant stakeholders:

1. Policy: By comparing and benchmarking internationally recognised and successfully applied best business practices in VET finance systems a consistent and applicable recommendation for future VET finance model in Georgia will be elaborated. That recommendation will include a sensible time frame for implementation and can, once agreed by relevant stakeholders, serve as a time schedule for further actions.
2. Costing: In order to define voucher values and related financial revenues, it is envisaged to outline cost structures incurred by VET training activities at different levels and diverse occupations. The cost analysis will serve as base for decisions about proper voucher calculations. Details focus and outline of this study will be described later in that chapter.
3. Budgeting: In order to optimize the distribution of funds allocated for VET activities and provide decision makers both at Georgian policy level and at donor organisations with sound recommendations for improved efficiency and performance, it is envisaged to analyse the VET funding course while being contrasted with overall budgetary course.

2.2 Scope of this study

Cost analysis and cost assessment is considered basic for the envisaged future re-shape in VET financing policies. Sound and in-depth appraisal of costs incurred by various VET centres in Georgia is unquestionably a key precondition for successful design and implementation of a new VET financing model which ensures more demand-drive and higher conformability with the market's and the society's needs.

Consequently, the main focus of this study is the following:

1. Presenting and demonstrating an appropriate methodological approach in order to record and to contrast cost structures of different VET institutes
2. Presenting the collected figures and illustrate relevant cost structures at Georgian VET centres incurred by diverse occupational trainings
3. Outlining implications for a calculatory base for future VET financing policy, e.g. voucher-based reimboursement schemes, from an economical perspective.

Since most VET centres in Georgia are now a product of various mergers among smaller VET institutes, they often conduct a wide array of training programs in both time and content wise dimension. In order to have a broad range of both VET centres and occupational training programs, thus allowing sound and comprehensive costs comparison operations, a selection of 25 training programs implemented at 15 VET institutes was chosen (see following page for description of the process outline). Chapter 4 provides a description of the individual VET centres where cost assessment was carried out and contrasts the indirect costs incurred by those diverse VET centres. Chapter 5 groups the direct costs while comparing diverse VET centres with each other.

Additionally, the consultant assessed the overall physical appearance of the VET centres and its training facilities and equipment. This visual assessment was mainly targeted to get a flavour of the overall status of the VET centre, to see how many trainees were present and to learn about the local contingencies existing on the ground.

3 Methodology and course of analysis

3.1 Process outline

Given the political dimension of cost analysis of the current VET system, relevant stakeholders' involvement is considered core part of the process. In this regard, an initial workshop was organised by GTZ-PSDP. In this preparatory fact finding workshop (see page 9-10 for the project's time schedule) participated representatives from MoES, MoF, MoED and four VET centres. Main topics of this workshop were the negotiation and agreement about the cost analysis study and selection of representative occupations in particular. Strong support from part of MoES was agreed.

While PLANCO Consulting GmbH designed the necessary tool for data collection and analysis, a local team of experts was formed. Two members of that team work currently in senior positions at the MoES vocational training division. The team was formed in order to support PLANCO during the field work and to carry out the interviews at the previously selected VET centres in co-operation with the consultant. Simultaneously, a number of VET centres were selected for the cost appraisal interviews. The selection of the VET institutes was based mainly on the criteria of location, course diversity, general status of premises etc. (see the following section below for detailed information about centre selection).

Given the fact that the cost appraisal interview was carried out in a relatively homogeneous manner, it was an important part of the interviews to cross-check the figures received by VET centres for their plausibility, and thus to ensure quality of the collected data. In this regard, it was also the objective for the researcher team carrying out the interviews to check in the field whether the figures given proved sound correlation with reality.

3.2 Selection of VET centres and occupations for cost appraisal

The selection of 15 VET centres, covering both rehabilitated and non-rehabilitated institutes, were visited between 30 March to 16 April 2010.

Main criteria for the selection of the VET centres for assessment were:

- Location: VET centres both in Tbilisi and outside should be assessed
- Current status: appropriate mix of both rehabilitated and non-rehabilitated VET centres
- Range of training programs/occupations: in order to guarantee both effective cost assessment and offer the consultant a broad range of training programs at the 15 VET centres, those institutes offering sound but broad course schemes were selected.

List of analysed occupations and training providers

occupations (training duration in months) / training provider	Rustavi VET Center "Modusi"	Tbilisi VET Center "Icarus"	Tbilisi VET Centre "Margi"	Tbilisi Multidiscipline VET Centre	Tbilisi Multiprofile VET	Tbilisi IT VET Centre	Akhaltsikhe VET Center	Batumi VET Centre	Kobuleti VET centre	Toidze Arts Centre	Tbilisi VET Center	Tbilisi VET Centre "Spectri"	Kutaisi VET Centre	Kachreti VET Centre	Khidistavi VET Centre
automechanics (12)	■				■		■	■					■		
bartender (12)		■							■						
beekeeping (9/12)							■		■				■		
bookkeeping (9/12)	■		■												■
carpenter (12)					■		■					■		■	
cook (12/24)		■							■				■		
dentistry assistent (18)								■							
electrician (9/12)	■				■										
farmer (24)							■							■	■
general construction (12/17/18)					■							■		■	
hairdresser (5/12)							■							■	■
hotel receptionist (12)		■							■						
nursing (17/18)								■							
operator of agriculture machines (3/12)							■								■
PC operator (4/5)			■	■										■	
PC technican (4/10/12)	■					■						■		■	
plumber (9)	■														
repairer of household (12/18)	■							■	■						
road construction (18)												■			
sewing (12/24)					■		■			■	■		■		
tile setter (5)													■		■
tile setter / plumber (12)							■						■		
waiter (12)		■							■				■		
welder (12)	■			■									■		
woodart (12)				■						■					

The selection of the occupations (please see table above) was based mainly on criteria of relevance for the labour market (via demand of students), diversity, and type of equipment involved. Since it was obvious from the very beginning of the process that not all training programs implemented at the 15 selected VET institutes could be assessed cost-wise, it was important for the consultant to get a grasp about diverse sector-related trainings leading to certain “occupations”. In this regard, occupations from the following sector were selected by MoES/GTZ-PSDP:

- IT service industries
- Tourism and hospitality services
- Financial services
- Culture and sport-related sector
- Construction sector
- Medical sector
- General services

- Transport and transport services
- Agricultural sector.

All sectors are supposed to offer a sufficient variety of training programs requiring different levels of equipment and competences for co-ordinating proper course and training activities. Besides the obvious differences in costs as a result from geographical location of the VET centre assessed, it was of high interest for the consultant to see what types of equipment were involved in training measures, how depreciation was calculated and how VET institutes planned equipment replacements.

3.3 The MS Excel analysis tool

Throughout the interviews a standardised Excel tool was used in order to structure the interview itself and to collect the needed data. The tool's main features while using for data collection were the following:

- Record of trainees enrolled currently and in previous years
- Training programs and course schemes currently conducted, number of trainees enrolled per course, duration of the course
- Record of teachers' salaries and hours of training in those courses selected for cost assessment
- Record of training stations' investment costs, depreciation periods, maintenance and energy costs
- Record of utilisation of training equipment ("stations") in relation to courses selected for cost assessment
- Record of material costs incurred by training activities
- Record of overall administrative costs.

Consequently, the direct costs are to be allocated to each student, making thus feasible the calculation of those costs per trainee. For the indirect costs, however, the calculation is different: After all administrative costs per VET institute are recorded, their total sum is to be divided by the total number of trainees enrolled. Therefore, the amount of indirect costs per student must be identical for all trainees at one VET centre.

An extensive manual with detailed information about how to make use of the data analysis tool is provided in combination with this study.

4 VET centres visited

In chapter 4 the selection of VET centres visited will be outlined in more depth. The tables which contain the figures collected for each VET centre at a first glance, will offer the following information:

- **Number of trainees** enrolled in all assessed training programs and in contrast to the average of number of trainees enrolled in the same program at the other assessed VET institutes
- **Direct costs per trainee**, differentiated by cost item, incurred at the VET centre in question in contrast to
  a) the *average direct costs at all VET institutes (arithmetic mean)* and to
  b) the, though hypothetical, *"assumed reference"* [1]
- **Indirect costs per trainee** incurred at the VET institute in question in contrast to the *average of all VET centres (arithmetic mean).*

The VET centres will appear in order of the visiting day, i.e. Rustavi VET "Modusi" was visited first. Due to the overall narrow time frame for all the visits, every VET centre was visited once. Therefore, the qualitative outline of the centres can be based exclusively on this one-day, though subjective, impression (see Annex).

4.1 Rehabilitated VET's

4.1.1 Rustavi VET „Modusi"

Rustavi VET is located in the city of Rustavi, approx. 30 km away from the central Tbilisi. The city itself was mainly constructed in combination with a large metallurgical plant after World War II. Since large facilities of that plant were closed throughout economic downturn in the 90's, the city lacks today substantial employment opportunities. The VET centre is located in a campus being constructed in the same period like the city Rustavi itself. Unlike its surroundings, the centre's building facilities are in a sound, well-maintained condition. As it occurs in virtually all VET centres visited outside Tbilisi, the Rustavi VET centre's dorm is habited by IDP's, thus preventing trainees from locations outside Rustavi from participation in VET activities.

In all training rooms students were trained, though the number of students seen on place was far lower than the number of students reported by the VET centre's management. The

[1] The "assumed reference" has to be understood as the reference value provided by applying best training practices. It is based on what the research team has seen on the ground, i.e. at the diverse VET centres. The assumed reference is therefore, to a certain extend, subjective. It is, however, the product of the research, cost assessment and comparison based on the researchers' visit at the 15 VET centres. In the short introductory remarks at the chapters' beginning concerning every single VET centre, this general impression about the centre, its buildings and functions is explained. Additionally, a summarized overview of the, though subjective, criteria can be found in the table at the end of the report (see Annex). The "assumed reference" is not the 'ideal' value of money amount to be spent for proper VET training. In order to get 'ideal' financing schemes a broader discussion about costs and, even more important, curricula contents should be envisaged.

centre focuses on training of technical skills, i.e. welding, car repairing, and construction. Therefore, well equipped workshops, particularly for welders and auto mechanics are available. Given the long history of “Modusi” VET centre and its experience in training industry-related occupations, the centre’s importance for training technical occupations for young people from Rustavi and around is crucial.

Rustavi “Modusi” VET centre proves to work quite efficiently. Most costs incurred at the institute are below the reference, except those for auto mechanics.

Indicators of the training institute: Rustavi VET Center "Modusi"

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
PC technican (4/10/12)	37	63	660	760	720	583	648
bookkeeping (9/12)	23	56	487	381	672		
electrician (9/12)	17	17	686	582	764		
welder (12)	18	15	1.876	1.917	1.958		
plumber (9)	15	15	1.655	1.655	1.655		
automechanics (12)	31	28	958	715	947		
repairer of household (12/18)	17	21	1.009	695	1.069		

4.1.2 Tbilisi IT VET Centre

Tbilisi IT VET Centre, located in a modern building in a populated area of Tbilisi, makes a remarkably professional appearance. The institute itself is very well maintained, well equipped, English-speaking staff is around. The personnel involved in the interview process proved high competence in providing the research team with suitable, verifiable figures. Number and figures given about trainees being recently enrolled at Tbilisi IT VET, about the centre's capacity and the equipment's utilisation, about financial amounts invested and depreciation rates applied seem reliable, sound and properly calculated. According to available information at MoES, training classes at Tbilisi IT VET centre are reported being fully booked. Motivation seems to be high since fees for trainees are common. Trainees enrolled at IT VET centre designed web sites for a large number of VET centres in Georgia.

Given the need for highly qualified staff working in the administration of Tbilisi IT VET institute, it appears sensible that the administrative costs are above average.

Indicators of the training institute: Tbilisi IT VET Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
PC technican (4/10/12)	151	63	720	760	720	817	648

4.1.3 Tbilisi VET Centre “Spektri”

Being located around 15 km in the suburban areas of Tbilisi, “Spektri” is one of the largest VET centres in Georgia. The VET centre is a product of various mergers between different older VET centres (see http://www.spectri.ge/lang_eng/about.html) and has today, hence, a wide array of training programs. Since USAid is currently supporting the centre substantially, “Spektri” focuses increasingly on short-term programs, i.e. one month curricula.

“Spektri” offers huge and professionally designed facilities a large number of occupations: construction workers, plumbers, electricians, wall painters, geodesists, tile-setters, carpenters etc. The training facilities for construction-related occupations are among the best facilities of this type seen throughout Georgia.

The “Spektri” VET centre’s director was, though being involved in the cost assessment process from the very beginning, highly cautious about the outline and the implications of this study. Particular fears about recording recent cost structures and using them as standard cost figures were expressed. In this regard, a certain tendency towards overrating costs, particularly equipment and material costs could be observed.

Tbilisi “Spektri” VET centre’s indirect costs are relatively high. Due to its location outside Tbilisi, it may pose more difficulties to fill the courses with enough trainees. Particularly the course for PC technicians is more expensive than the overall average, and this may be because of lower figures of trainees enrolled.

Indicators of the training institute: Tbilisi VET Centre "Spectri"

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
PC technican (4/10/12)	48	63	958	760	720	873	648
road construction (18)	47	47	363	363	363		
general construction (12/17/18)	77	36	452	675	1.024		
carpenter (12)	30	18	880	1.319	2.109		

4.1.4 Tbilisi VET Centre “Icarus”

While Tbilisi IT VET centre can be regarded the benchmark for IT-related occupations, “Icarus” sets the standards for occupations in the tourism and hospitality sector. By offering cooking and restaurant facilities, which are by far the best seen in Georgian VET centres, “Icarus” is a highly attractive address for people willing to acquire competences in the fields of cooking, hotel and restaurant servicing occupations. A large number of trainees are trained against considerable fees.

Unfortunately, the centre’s facilities had to be visited on public holiday, i.e. 9 April 2010. Whether “Icarus’s” large and costly facilities can offer the same return on investment than other VET centres working in the guest service-related occupations may be, therefore, questionable. For professional cooking and waiter training requested by large hotel chains, “Icarus” VET centre is, however, the right place.

Since “Icarus” VET centre’s management executes its work both vigorously and highly professional, costs incurred by investments undertaken and materials used are, perhaps inevitably, significantly higher in comparison to other, though very professionally operating, VET institutes.

Indicators of the training institute: Tbilisi VET Center "Icarus"

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
cook (12/24)	105	61	1.346	946	1.346	1.309	648
waiter (12)	9	11	2.078	1.379	943		
bartender (12)	23	19	1.456	1.195	1.259		
hotel receptionist (12)	20	24	885	742	775		

4.1.5 Akhaltsikhe VET Centre

Akhaltsikhe VET Centre makes an impressive figure. A large number of rooms and galleys have undergone intensive and sound renovation. The work stations, workshops, practical training cabinets etc. are impressive and look properly used. The overall situation of the VET centre corresponds to the number of trainees registered.

The town Akhaltsikhe itself is located in a remote area of Georgia, i.e. 75 km from Batumi. Consequently, the VET centre's offered occupational trainings focus on farming, farm-machinery and auto mechanic competencies. Additionally, the VET centre's management focuses on training which will provide women with necessary competencies for generating income from self-employment, i.e. hairdressing and sewing. Whether this tendency reflects recent discussions in gender equalisation policies should be assessed throughout other studies. The facilities offered by the VET centre are in a well maintained status. The VET centre envisages enriching mechanic courses curricula with welding trainings. The necessary equipment is purchased, the centre management plans to put it into operation soon.

As it can be seen through the following figures, Akhaltsikhe VET centre takes intensive care of its entrusted resources. Particularly in fund-demanding technical training programs, e.g. operator of agricultural machines, Akhaltsikhe VET centre saves scarce resources by relying and using depreciated equipment.

Indicators of the training institute: Akhaltsikhe VET Center

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost [GEL/trainee/yr]			indirect cost [GEL/trainee/yr]	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
automechanics (12)	19	28	910	715	947	562	648
beekeeping (9/12)	16	16	535	585	886		
carpenter (12)	14	18	1.626	1.319	2.109		
farmer (24)	30	21	749	1.479	1.479		
hairdresser (5/12)	23	20	363	349	436		
operator of agriculture machines (3/12)	15	18	1.052	735	1.215		
sewing (12/24)	16	48	662	634	1.176		
tile setter / plumber (12)	17	17	643	650	658		

4.1.6 Kobuleti VET Centre

Being located in one of the most popular tourist spots, Kobuleti VET centre's management focuses consequently on training competencies for the tourist and hospitality sector. The town's tourist facilities are large; the need for staff is continuous. The centre's facilities offer sound infrastructure for training cooks, waiters, bartenders, receptionists, confectioners. IT skills are part of the long-term curricula. Kobuleti VET centre receives high rates of regional hotels' und restaurants' reputation for its level of training, exam execution and overall quality.

Additionally, the VET centre envisages to design and carry out other tourism-related occupational trainings, e.g. mountain guides and so-called guides for Western Georgia.

When the VET centre was visited, it was packed with students sitting in proper work protection clothes in their respective classrooms. The VET centre's director, the personnel and the trainees proved great efforts in demonstrating the centre's high standards of training quality and commitment against the auditing team.

In its field of competencies, however, Kobuleti VET centre proves highly efficient use of funds entrusted. Particular the tourism and hospitality sector-related occupations are trained at a very modest cost scheme.

Indicators of the training institute: Kobuleti VET centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
cook (12/24)	38	61	953	946	1.346	513	648
bartender (12)	15	19	934	1.195	1.259		
hotel receptionist (12)	28	24	600	742	775		
waiter (12)	12	11	926	1.379	943		
beekeeping (9/12)	15	16	766	585	886		
repairer of household (12/18)	15	21	678	695	1.069		

4.1.7 Kutaisi VET Centre

Kutaisi VET centre is a huge VET centre offering a broad range of different subjects. The centre was packed with students who are obviously highly motivated. The courses visited appeared rather frequented by trainees and, at the same time, quite demanding. Obviously, Kutaisi VET centre's work stations are continuously used by students. Numbers were easily available; the VET centre director's presence during our inquiry was both supportive and enlightening. Due to sensible investments in training stations and their obviously proper use for training purposes makes Kutaisi VET centre as a potential benchmark for various course-related cost designs.

Moreover, Kutaisi VET centre's management focuses on first occupational trainings where a certificate shall be obtainable after one year. Only in the sewing class further levels of skills are trained. This, say, second level training does not imply higher investments in training station equipment. It does exclusively mean that the second-year-trainees are trained at the same machinery then in their previous year but adapting more sophisticated skills.

Given its highly professional course character and its closeness to what local employers obviously want, costs incurred by the broad range of training modules are very reasonably. Not surprisingly, Kutaisi VET centre's cost structures set often a benchmark for similar course schemes carried out by other institutes.

Indicators of the training institute: Kutaisi VET Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
waiter (12)	11	11	1.135	1.379	943	389	648
beekeeping (9/12)	17	16	455	585	886		
tile setter / plumber (12)	17	17	658	650	658		
tile setter (5)	18	19	275	210	275		
automechanics (12)	51	28	627	715	947		
welder (12)	11	15	1.958	1.917	1.958		
sewing (12/24)	61	48	1.173	634	1.176		
cook (12/24)	41	61	540	946	1.346		

4.1.8 Kachreti VET Centre

Kachreti VET centre is another large VET centre offering a diversity of subjects related to the agricultural sector. The centre is located in the middle of Georgia's main region for agriculture and, particularly, wine production. The centre offers equipment for sound training of agriculture-related occupations, particularly for wine producers (In co-operation with German partners), but also for farmer-related activities like sterilisation of dairy products or conservation treatment of fruits. Alternative curricula for occupations being requested once the region's tourism capacity will have caught up are developed. In this regard, the centre offers courses for agro-tourism management.

Additionally, Kachreti VET centre offers professional surroundings for the acquisition of PC/IT-related competences.

The atmosphere during the interview was very supportive and encouraging. Figures about current and previous scenarios were available.

Since Kachreti VET centre continuously invests funds at various fields for necessary restoration and rehabilitation of the building and its facilities, costs incurred there are generally above the arithmetical mean.

Indicators of the training institute: Kachreti VET Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
hairdresser (5/12)	16	20	541	349	436	730	648
PC operator (4/5)	15	16	331	444	481		
PC technican (4/10/12)	15	63	701	760	720		
carpenter (12)	16	18	1.898	1.319	2.109		
farmer (24)	15	21	3.358	1.479	1.479		
general construction (12/17/18)	15	36	841	675	1.024		

4.2 Non-rehabilitated VET Centres

4.2.1 Tbilisi VET Centre "Margi"

"Margi" VET centre is centrally located in an old, non-refurbished and thus merely neglected building. Though the centre was visited on a working day, there were virtually no students around. The most training rooms for bookkeepers and PC operators are not equipped; a language laboratory contains only shabby furniture but no single technical item. If IT is available, then it is out-dated, unplugged and unused.

Beside a small group of around six or seven disabled students being taught in a dark room at out-dated computers, no other teaching/training activity could be registered during the researchers' visit. Albeit the director informed the interviewers that training and instruction are taking place in another building, the high number of trainees enrolled (332 in 2009) seems not realistic at all.

At the other hand, at the director's office diverse and expensive equipment, e.g. remote control devices for aircraft model-making, was available. Those devices, however, seem to be virtually irrelevant to the taught subjects. A particular course for 'remote control device mechanicals' is part of the institute's curriculum. Given the physical state of "Margi's" facilities, it seems highly unlikely that this course takes place properly. There is no sign that consistent subjects and occupations are currently trained. Therefore, the "Margi" figures are virtually irrelevant for proper cost calculation.

Indirect costs incurred by "Margi's" administration (e.g. GEL 70,000 spent for travel purposes), however, illustrate the inefficiency.

Indicators of the training institute: Tbilisi VET Centre "Margi"

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
bookkeeping (9/12)	125	56	238	381	672	960	648
PC operator (4/5)	10	16	835	444	481		

4.2.2 Tbilisi Multidiscipline VET Centre

Albeit not being rehabilitated so far, Tbilisi Multidiscipline VET Centre appears professionally maintained and managed, at least under the prevailing harsh circumstances. The latter are the reason for the mostly out-dated equipment, a 30-year old carpentry workshop, old PC's, shabby furniture and an overall neglected impression of the premises. The VET centre's director and management, however, make an impressive figure while presenting their aims and ambitions for the centre: particularly the textile- and carpentry-related training shall be boosted, better equipment for proper training shall be purchased. Tbilisi Multidiscipline VET Centre makes an active, training-focused impression. A few observations shall provide some evidence:

- Court and galleys of the VET centre were packed with young students.
- Upon the bell rang, all trainees got back to class.
- In the classrooms itself a real training and teaching atmosphere was tangible.
- Figures about the current financial situation were easy, quickly available and were properly researched and manipulated.

Tbilisi Multidiscipline VET Centre is, like many other VET centres in Georgia, actually a merger between diverse older, so-called "polytechnical" centres. It focuses stronger than other VET centres on training handicraft capabilities (e.g. wood art, shoemaking, sewing), thus providing impressive, though out-dated but well maintained machinery and equipped workshops.

According to its resources in machines and personnel, the VET centre's management envisages further boosting and exploiting its textile competencies. Whether this focus will lead to higher figures of students may be seen in the near future.

Both direct and indirect costs incurred by Tbilisi Multidiscipline VET centre are, sometimes far, below average. At the other hand, the institute needs to replace its mostly outdated equipment, e.g. carpenter workshop from the early 80's, in order to guarantee future proper training.

Indicators of the training institute: Tbilisi Multidiscipline VET Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
PC operator (4/5)	24	16	167	444	481		
woodart (12)	18	37	509	490	509	419	648
welder (12)	0	15	0	1.917	1.958		

4.2.3 Tbilisi Multiprofile VET Centre

Tbilisi Multiprofile VET Centre is located in a huge building which formerly belonged to an adjacent production complex. Since the latter was closed in the early 90's, the VET centre apparently did not undergo refurbishment or renovation works of any kind. The whole building which contains four floors in total albeit only two of them are partly used makes a piteous and merely neglected appearance. Due to rotten roofs and walls, water leakages are virtually everywhere, damaging heavily not only the walls and the ceiling but also the hardwood flooring, the furniture and the technical equipment itself. The building is heated only by small stoves in the reaching rooms fired with wood, thus making the building in winter unusable for proper training. Not surprisingly, only in few rooms some trainees were seen. Trainees' shop-up rate in winter tends to be even lower.

The institute's bookkeeping and management, at the other hand, makes a fairly different figure by providing the researcher team with all required details and figures. The institute's focus is clearly on sewing and textile making/processing. At the training facility for metal workers required for the preparatory one-month-module for auto mechanics during the visit time no students were enrolled. The VET centre has also training facilities for construction workers, tile setter and carpenters which were reported to be in use once trainees are enrolled.

The building's overall physical situation is deteriorating. Without external financial input combined with an appropriately designed capacity building process, it seems unlikely that this situation can be changed. As for Tbilisi Multidiscipline VET Centre, Tbilisi Multiprofile Centre's costs are generally below average. The efficiency at the latter seem, at least at a first glance throughout our visit, far lower given the number of trainees seen on the ground. Cost schemes reported at Tbilisi Multiprofile VET Centre cannot guarantee sufficient quality of vocational training.

Indicators of the training institute: Tbilisi Multiprofile VET

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
automechanics (12)	20	28	336	715	947		
electrician (9/12)	16	17	477	582	764		
carpenter (12)	11	18	871	1.319	2.109	664	648
general construction (12/17/18)	16	36	732	675	1.024		
sewing (12/24)	27	48	334	634	1.176		

4.2.4 Tbilisi VET Centre

Tbilisi VET Centre was, like Tbilisi Multiprofile VET Centre, the training part of a textile factory which was closed during the early 90's. The centre has also a textile focus, thus providing though out-dated but very well maintained equipment for sewing, thick felting and spinning. The management reported about the VET centre's difficulties in attracting trainees for blue-collar-work trainings. Only the sewing courses make an exception. Consequently, the centre's management decisively moves towards offering more IT-related training courses.

In this regard, a new cabinet with new computers was installed. Additionally, by making use of the trainees' vocational experiences, parts of the building were recently renovated, the hard-wood flooring restored and new furniture fabricated. The management envisages offering courses and occupations which are obviously high on demand, i.e. IT and PC operating courses. Once those courses are installed and run, Tbilisi VET Centre's financial situation is likely to improve given the income opportunities resulting from properly designed and successfully implemented IT-related courses.

The interview atmosphere at Tbilisi VET Centre can be described as cordial, open and very friendly. Figures requested by the research team were provided, discussions about budgetary and cost-related topics were both controversy but fruitful.

Indirect costs at Tbilisi VET Centre seem above average but are in fact inflated by urgently necessary rehabilitation measures.

Indicators of the training institute: Tbilisi VET Center

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
sewing (12/24)	57	48	510	634	1.176	788	648

4.2.5 Tbilisi "M. Toidze Arts" VET Centre

"M. Toidze Arts" VET Centre being located in Old Tbilisi just off Rustaveli Avenue, is an institute which seemed quite difficult to assess. The difference between figures given and the visible reality on the ground was virtually too big.

No students were seen in the VET centre though it was visited on a working day. Tbilisi "M. Toidze Arts" VET Centre's management reported about six classes being enrolled in the sewing classes. Given the few and poorly maintained sewing facilities it seemed highly unlikely that this number of students can be taught at the VET centre. Reliable figures were unfortunately not available.

The VET centre tries to stress its art-related focus. This focus, however, is currently not really reflected by the training facilities. Despite of the fact that the building itself urgently needs profound and overall rehabilitation, the general situation of the training facilities must be called neglected which does not exclusively result from the piteous state of the building.

Since it has to be doubted whether proper training takes place at "M. Toidze Arts" VET Centre, figures recorded proved to be unrealistically low and, thus, quite useless.

Indicators of the training institute: Toidze Arts Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
sewing (12/24)	78	48	493	634	1.176	612	648
woodart (12)	56	37	470	490	509		

4.2.6 Khidistavi VET Centre

Khidistavi VET Centre, located in the vicinity of Gori, is in fact split into two parts: the VET centre itself, containing a large, non-rehabilitated building with a number of training facilities, and a facility for short-term courses recently built and financed with support of USAID. This newly built part will become juridical part of Khidistavi VET centre once the USAID project is finished.

The "old" Khidistavi VET Centre focuses on training agriculture-related occupations, e.g. farmer and operator of agricultural machinery. Beside assessing this core programs of the VET centre, the research team appraised costs incurred by hairdresser, tile setter and bookkeeping trainings.

Though training activities take place at Khidistavi VET Centre, costs reported by the management appear unrealistic. As for the operator of agricultural machines, the equipment used seems completely out-dated and training material costs were not traceable at all. Therefore, it is highly recommended not to take figures from Khidistavi as relevant for the cost calculation process.

Indicators of the training institute: Khidistavi VET Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
operator of agriculture machines (3/12)	20	18	419	735	1.215	318	648
hairdresser (5/12)	20	20	145	349	436		
tile setter (5)	20	19	146	210	275		
bookkeeping (9/12)	20	56	418	381	672		
farmer (24)	17	21	331	1.479	1.479		

4.2.7 Batumi VET Centre

Due to the increasing touristic and business potential of Georgia's main harbour city Batumi, its no. 1 VET centre focuses on training tourism- and hotel-related occupations. Investments in the facilities for cooks are done, though the VET centre offers until now exclusively short-term courses. It has to be mentioned that Batumi VET Centre's strategy of increasing its market conformability seems to be designed and implemented in a proper, incremental and sensible way. Since the profile enrichment towards tourism and hospitality was executed recently, the researchers focused on training courses carried out for a longer period by the VET institute.

Particularly the training course for dentistry assistants (18 months) was of particular interest since this profile is currently only offered at Batumi VET Centre, regardless the high overall demand on that kind of courses.

Since the VET centre was packed with trainees, figures seem to be calculated on solid base. It has to be assumed, therefore, that Batumi VET Centre's director manages to run the institute while using funds both cautiously and highly efficiently. Indirect costs are the lowest to be found in Georgia – this is remarkable.

Indicators of the training institute: Batumi VET Centre

training areas	number of trainees [n]	arithmetic mean all training institutes [n]	direct cost			indirect cost	
			training institute	arithmetic mean all training institutes	assumed reference	training institute	arithmetic mean all training institutes
automechanics (12)	20	28	743	715	947	317	648
dentistry assistent (18)	40	40	390	390	390		
nursing (17/18)	23	23	260	260	260		
repairer of household (12/18)	31	21	399	695	1.069		

5 Major findings: detailed cost structures

5.1 Introductory remarks

As mentioned beforehand, defining occupational standards appears somehow imposed. At Georgian VET centres a wide range of definitions can be found what content has to be trained in relation to the various occupational profiles. The MoES, however, provides substantial guidance in order to prepare the base for an overall harmonisation, e.g. by recommending a common share of theory and practice modules in the training programs.

Moreover, vocational training on different levels does not take place in virtually no Georgian VET centre. Though some VET centres provide programs for e.g. sewing courses being designed in one year and two years scheme, room utilisation and costs of equipment involved during second year does not differ significantly from those values recorded for the first year.

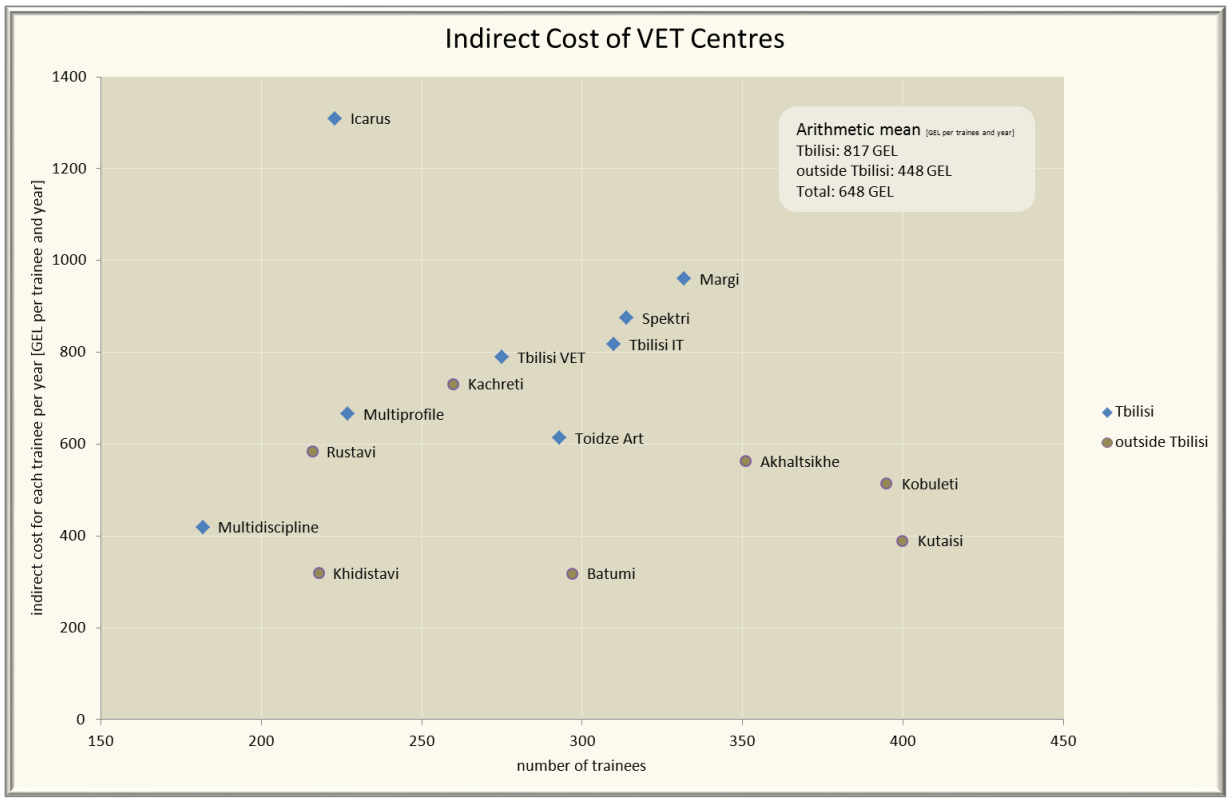
Another, yet very important, remark about the following figures: The research team often observed a severe difference of costs incurred by VET centres at Tbilisi and those recorded at VET centres outside the capital. Particularly salaries for both teachers and instructors differed substantially, thus revealing that future VET cost distribution schemes should take this, often huge, difference into consideration.

In this regard, chapter 5 will outline what the direct costs for each occupation incurred by different institutes are like. For further information about how the diverse cost were recorded and analysed, a separate manual is attached to this study. In order to appraise the cost schemes of every occupation assessed properly, direct cost such as:

- trainer salaries,
- investment costs
- material and energy costs

are relevant and were recorded. In some cases material costs are recorded with ‘0’ which does not mean that there are no costs incurred. Instead, these costs were usually not traceable by the VET centres’ accounting.

Additional to these directly incurred costs, indirect cost are equally important, e.g. costs for administrative personnel, overall power and heating costs of the VET centre, enrolment costs, insurance costs, building maintenance costs etc. A detailed breakdown of all VET centres’ indirect costs can be found in the Excel spreadsheets where the collected data are displayed. Further explanation are also provided by the belonging manual. The indirect costs incurred by every VET centre differed, sometimes substantially, between the regions. The following chart shows the result of the indirect cost analysis and illustrates the different indirect costs incurred by the VET centres analysed throughout Georgia.



The arithmetical mean of all VET institutes' indirect costs per trainee amounts, therefore, to GEL 648. Though the differences are huge, it seems that a correlation between number of students enrolled and the amount of indirect costs per trainee exists.

The number of occupations currently trained at VET centres is – according to the Ministry of Education and Sciences' sector approach – currently divided into 11 sub-groups out of which the following occupational training profiles were assessed:

- IT service industries: PC operator, PC technician
- Tourism and hospitality services: cook, waiter, bartender, receptionist
- Financial services: bookkeeper
- Culture and sport-related sector: wood arts, felting
- Construction sector: general construction worker, carpenter, electrician, tile setter, plumber, welder, metal worker
- Transport and transport services: auto mechanic, operator of agricultural machines
- Medical sector: nurse, dental technician assistent
- General services: hairdresser, sewing, repairer of technical household appliances
- Transport and transport services: auto mechanic, operator of agricultural machines
- Agricultural sector: beekeeper, farmer.

Those values which seem to be used as base for further use are highlighted in the diagrams.

At the right hand side of the table, PLANCO assumed a value which is suggested for setting a *reference value*. This value is not the arithmetical mean. Instead, it was assumed based on the costs assessed at one hand and the overall impression about the professionalism displayed while implementing training activities. For example, Tbilisi IT VET cost figures may serve as reference value given the highly professional atmosphere, excellent equipment utilisation and overall efficiency. Costs for carpenters' equipment at Akhaltsikhe VET centre are considered standard given their modern appearance and low age.

However, even such reference values have limited significance, as they

- do only refer to a small number of institutes analysed in this study (although the total no. of institutes is 15; sometimes only 1-5 institutes per occupational profile were assessed, see section 3.2), and
- still represent the current situation and cost structure of VET supply at varying level of quality in the various institutes.

In the long-term, once having achieved an outcome-based VET system, it would be recommended to base such reference values strictly to unique occupational standards.

5.2 IT Services

5.2.1 PC Operator

As mentioned beforehand, figures recorded at Tbilisi "Margi" VET centre do not serve appropriately for proper benchmarking. Costs recorded at "Margi" were instead recorded ideally, i.e. what proper training *should* cost. Kachreti VET Centre, at the other hand, offers exclusive facilities for IT-related trainings. Therefore, both material and equipment costs were calculable properly. Since teacher salaries at Kachreti VET Centre are far lower than those at Tbilisi, it would make sense to combine the PC operator number with those for PC technician (see page overleaf) in order to define appropriate teacher salaries.

Additionally, it became apparent throughout the interviews that VET institutes were unable to differentiate material costs incurred by PC operator classes from administrative consumables. The course is taught during 5 months.

Training cost for the occupation PC operator (4/5) per trainee and year

training institute	Tbilisi VET Centre "Margi"	Tbilisi Multidiscipline VET Centre	Kachreti VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	10	24	15	16			
trainer cost [GEL]	491	93	229	271	31%	271	24%
equipment cost [GEL]	334	62	35	144	17%	144	13%
material cost [GEL]	10	13	67	30	3%	67	6%
total **direct** cost [GEL]	835	167	331	444	51%	481	43%
total **indirect** cost [GEL]	960	419	730	422	49%	648	57%
total cost [GEL]	1.795	586	1.061	866	100%	1.129	100%

5.2.2 PC Technician

In differentiation to the previously mentioned PC Operator who mainly learns how to make use of a basic set of software at a computer, the PC Technician's curriculum contains also modules about how to change and repair hardware components or how to dismantle PC components properly. The course is taught during 12 months.

Given the high degree of professionalism, the PC Technician scheme taught at Tbilisi IT VET Centre sets the benchmark for this course. Both material and energy costs could be calculated from figures available at Tbilisi IT VET Centre.

The large difference in equipment costs at Tbilisi "Spektri" and Tbilisi IT VET is, however, striking and can be explained only with the high utilization rate at the latter.

Training cost for the occupation PC technican (4/10/12) per trainee and year

training institute	Rustavi VET Center "Modusi"	Tbilisi IT VET Centre	Tbilisi VET Centre "Spectri"	Kachreti VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	37	151	48	15	63			
trainer cost [GEL]	524	542	239	552	465	34%	542	40%
equipment cost [GEL]	136	134	715	82	267	20%	134	10%
material cost [GEL]	0	44	4	67	29	2%	44	3%
total **direct** cost [GEL]	660	720	958	701	760	56%	720	53%
total **indirect** cost [GEL]	583	817	873	730	601	44%	648	47%
total cost [GEL]	1.243	1.537	1.831	1.431	1.361	100%	1.368	100%

5.3 Tourism and Hospitality sector

5.3.1 Cook

The cook training is mostly demanded among young male students. Usual course durations are 12 and 24 months. Both “Icarus” and Kobuleti VET Centre incur similar material costs in order to train cooks. Trainers’ salaries should be different given the diverse remuneration structure in Tbilisi and in the regions. The high investment costs at “Icarus” are outweighed by great utilisation and trainee turn-over. Additionally, depreciation, maintenance and energy costs applied at “Icarus” seem both appropriate and fair. Therefore, “Icarus” sets the standard.

Training cost for the occupation cook (12/24) per trainee and year

training institute	Tbilisi VET Center "Icarus"	Kobuleti VET centre	Kutaisi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	105	38	41	61			
trainer cost [GEL]	584	363	321	423	30%	584	29%
equipment cost [GEL]	347	178	84	203	15%	347	17%
material cost [GEL]	415	412	134	321	23%	415	21%
total **direct** cost [GEL]	1.346	953	540	946	68%	1346	68%
total **indirect** cost [GEL]	1.309	513	389	442	32%	648	33%
total cost [GEL]	2.654	1.466	929	1.388	100%	1.993	100%

5.3.2 Waiter

Since, contrary to cook training, no expensive equipment is needed for proper waiter training programs (course duration 12 months), it is the teacher salary which becomes determining for cost calculation. Huge differences can be found, not only between Tbilisi and the regions but also among the two VET centres at the region itself. Given the course contents in combination with its reasonable cost schemes and its overall appearance, Kutaisi VET centre's figures are the selected reference (see chapter 4.1.7 and Annex).

Training cost for the occupation waiter (12) per trainee and year

training institute	Tbilisi VET Center "Icarus"	Kobuleti VET centre	Kutaisi VET Centre	arithmetic mean and % of total cost		assumed reference and % of total	
number of trainees [n]	9	12	11	11			
trainer cost [GEL]	1.520	596	903	1.006	55%	596	37%
equipment cost [GEL]	227	213	180	207	11%	180	11%
material cost [GEL]	331	117	52	167	9%	167	10%
total **direct** cost [GEL]	2.078	926	1.135	1.379	76%	943	59%
total **indirect** cost [GEL]	1.309	513	389	442	24%	648	41%
total cost [GEL]	3.387	1.439	1.524	1.822	100%	1.591	100%

5.3.3 Bartender

Though different VET centres are currently designing and implementing bartender courses, the most established and thus representative courses seem to be held at “Icarus” and Kobuleti VET Centre. Language courses, e.g. Russian, Turkish, English, is part of the curricula. Demand on qualified bartender particularly during summer is high at Georgia’s tourist spots. Therefore, courses usually start in September and end in June, just before high season starts. Since close relationship between VET centres and potential employers is crucial, internships at tourist facilities are envisaged to be part of the curriculum. Opportunities for later employment are, compared to other occupations, relatively good. Material costs incurred should be assessed continuously. Given the high standard of bartender training at Kobuleti VET Centre, it should be explained why the material costs among two VET centres differ to that extend.

Training cost for the occupation bartender (12) per trainee and year

training institute	Tbilisi VET Center "Icarus"	Kobuleti VET centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	23	15	19			
trainer cost [GEL]	707	501	604	39%	707	37%
equipment cost [GEL]	220	297	259	17%	220	12%
material cost [GEL]	528	135	332	21%	332	17%
total **direct** cost [GEL]	1.456	934	1.195	77%	1259	66%
total **indirect** cost [GEL]	1.309	513	364	23%	648	34%
total cost [GEL]	2.764	1.447	1.559	100%	1.907	100%

5.3.4 Hotel receptionist

Though the hotel receptionist profile is currently also developed by Batumi VET Centre, costs were analysed at “Icarus” and Kobuleti VET Centre, i.e. at VET centres with grown experience and proven record. The higher trainer costs at Kobuleti VET may seem odd at the first glance, given the previously noted salary differences between Tbilisi and beyond. Given the high demand on qualified staff at the coastline, it seems sensible that at Kobuleti higher salaries for qualified teachers have to be calculated.

Material costs at “Icarus” are inflated by the prevailing curriculum structure: room cleaning is part of the training, thus detergents have to be purchased. At Kobuleti VET Centre room cleaning is taught separately from the receptionist program. Material costs are, consequently, significantly lower. Language training is a must at both centres. In this regard, the arithmetical mean seems to offer a base for further voucher-related discussion.

Training cost for the occupation hotel receptionist (12) per trainee and year

training institute	Tbilisi VET Center "Icarus"	Kobuleti VET centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	20	28	24			
trainer cost [GEL]	509	541	525	47%	509	36%
equipment cost [GEL]	151	53	102	9%	151	11%
material cost [GEL]	225	6	116	10%	116	8%
total **direct** cost [GEL]	885	600	742	67%	775	54%
total **indirect** cost [GEL]	1.309	513	364	33%	648	46%
total cost [GEL]	2.194	1.112	1.107	100%	1.423	100%

5.4 Financial services

5.4.1 Bookkeeper

Despite its obvious importance for economic activities of any kind, bookkeeping courses live a merely wimpy existence in the overall VET system. Equipment and station investment, though being of very low financial value in comparison to other training programs, are often out-dated and underrated. Despite the large number of students enrolled at “Margi” VET centre, traces for proper bookkeeping training could not be found, thus making figures given highly speculative and not useful for further cost appraisal. Bookkeeping courses at “Margi” seem to exist merely on paper but not in reality.

At Rustavi “Modusi”, sound stations and numerous trainees were seen, thus making this VET centre the basis for cost assessment. Equipment costs, however, seemed by far too low at “Modusi” since bookkeepers there have only limited access to IT stations. Material costs could not be recorded since the differentiation from overall administrative consumables was not feasible. Proper calculation for voucher value, instead, should respect this, e.g. by transferring material costs from other office-related training, i.e. *hotel receptionist (GEL 116)*.

Training cost for the occupation bookkeeping (9/12) per trainee and year

training institute	Rustavi VET Center "Modusi"	Tbilisi VET Centre "Margi"	Khidistavi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	23	125	20	56			
trainer cost [GEL]	482	180	228	297	39%	482	37%
equipment cost [GEL]	5	58	190	84	11%	190	14%
material cost [GEL]	0	0	0	0	0%	0	0%
total **direct** cost [GEL]	487	238	418	381	51%	672	51%
total **indirect** cost [GEL]	583	960	318	372	49%	648	49%
total cost [GEL]	1.070	1.198	736	753	100%	1.320	100%

5.5 Culture and sport sector

5.5.1 Wood art

As mentioned beforehand, figures recorded at Tbilisi "M. Toidze Art" VET Centre are of limited value. Tbilisi Multidiscipline VET Centre, at the other hand, applies a vigorous cost-saving policy. Figures provided by this institute may be sound but too low. Therefore, cost structures recorded at Tbilisi Multidiscipline are surely benchmark but in order to carry out the training program properly, a substantially higher amount should be calculated. This has particular value for the equipment which is, given the inclusion of carpenter-related modules in the curriculum, relatively costly and needs careful maintenance. Recorded equipment costs (GEL 72) are by far not sufficient in order to re-finance necessary depreciation, let alone replacement costs. Therefore, it is suggested to rely on figures taken from carpenter training:

Equipment costs at Akhaltsikhe VET centre = GEL 768 while training 16 trainees

Training cost for the occupation woodart (12) per trainee and year

training institute	Tbilisi Multidiscipline VET Centre	Toidze Arts Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	18	56	37			
trainer cost [GEL]	287	257	272	39%	287	16%
equipment cost [GEL]	72	98	85	12%	72	4%
material cost [GEL]	150	116	133	19%	768	43%
total **direct** cost [GEL]	509	470	490	70%	1127	63%
total **indirect** cost [GEL]	419	612	206	30%	648	37%
total cost [GEL]	928	1.083	696	100%	1.775	100%

5.6 Construction sector

5.6.1 General construction

General construction is a course which is conducted with different duration (between 12 and 18 months). Modules include a suitable range of working steps a construction worker is likely to be challenged with.

Kachreti VET Centre, among some others, refurbishes its facilities by relying exclusively on its own trainees. The positive double effect is obvious: trainees get opportunities to apply their competences on the ground and the VET centre is able to rehabilitate its premises by conserving its funds. In this regard, material costs may appear high but their proper use can be assumed.

At the other hand, it was obvious that practical training at Kachreti VET Centre was carried out exclusively in the field, thus relying on the opportunities its large premises and land properties offer. Different local surroundings assumed training should also be given in premises designed for practical training. Proper VET cost calculation should include this. Since “Spektri” VET Centre’s practical training facilities offer a wide range of training opportunities, this equipment costs (GEL 208) should be included in the appropriate cost structure. Additionally, costs for work protection clothes (e.g. GEL 40, recorded at Batumi VET) are usually not part of the material costs but should be included in the financing scheme.

Training cost for the occupation general construction (12/17/18) per trainee and year

training institute	Tbilisi Multiprofile VET	Tbilisi VET Centre "Spectri"	Kachreti VET Centre	arithmetic mean and % of total cost		assumed reference and % of total	
number of trainees [n]	16	77	15	36			
trainer cost [GEL]	424	120	482	342	30%	482	29%
equipment cost [GEL]	108	208	25	114	10%	208	12%
material cost [GEL]	200	124	333	219	19%	333	20%
total **direct** cost [GEL]	732	452	841	675	60%	1024	61%
total **indirect** cost [GEL]	664	873	730	454	40%	648	39%
total cost [GEL]	1.396	1.325	1.571	1.128	100%	1.672	100%

5.6.2 Carpenter

Given the highly valuable equipment being involved in the training, carpenter occupational training (duration 12 months) is expensive. Not surprisingly, proper training facilities and cost structures could be found exclusively in rehabilitated VET centres. This does not mean that in non-rehabilitated VET institutes carpenter workshops do not exist but their maintenance is often subject of high individual and technical commitment.

Akhaltsikhe VET centre offers a good example of how carpenter work stations should be like. Material costs at Kachreti VET appear somehow to be beyond average mainly because material applied at practical training classes is usually used as furniture in the VET centre later on.

Training cost for the occupation carpenter (12) per trainee and year

training institute	Tbilisi Multiprofile VET	Akhaltsikhe VET Center	Tbilisi VET Centre "Spectri"	Kachreti VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	11	14	30	16	18			
trainer cost [GEL]	503	591	273	452	455	24%	591	21%
equipment cost [GEL]	250	768	411	695	531	28%	768	28%
material cost [GEL]	119	268	196	750	333	18%	750	27%
total **direct** cost [GEL]	871	1.626	880	1.898	1.319	70%	2109	77%
total **indirect** cost [GEL]	664	562	873	730	566	30%	648	24%
total cost [GEL]	1.536	2.188	1.753	2.628	1.885	100%	2.756	100%

5.6.3 Electrician

Electrician courses are in fact offered by a large number of VET centres, mainly on a short-term base. Long-term courses, i.e. between 9 and 12 months, appear less attractive. In this regard, training for electricians takes mainly place in short-term courses mainly co-financed by USAID support. Since it was part of the consultant's mandate to assess costs incurred by long-term programs, the number of working long-term curricula was quite limited. Particularly the material costs appear underrated, given the fact that material involved for proper electrician training can be costly. So far, it seemed that training materials are used repeatedly, thus having negative effects on trainees' practical qualification and material knowledge.

Training cost for the occupation electrician (9/12) per trainee and year

training institute	Rustavi VET Center "Modusi"	Tbilisi Multiprofile VET	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	17	16	17			
trainer cost [GEL]	612	325	468	56%	612	43%
equipment cost [GEL]	64	74	69	8%	74	5%
material cost [GEL]	10	79	44	5%	79	6%
total **direct** cost [GEL]	686	477	582	70%	764	54%
total **indirect** cost [GEL]	583	664	249	30%	648	46%
total cost [GEL]	1.269	1.142	831	100%	1.412	100%

5.6.4 Welder

Welder is a course which requires high investments and maintenance in equipment. Not surprisingly, only VET centres with proper cost and accountancy management have the necessary capability to carry out this training successfully. Usually, after 12 months a certificate is issued.

Both VET centres assessed for welder-related costs offer relatively homogenous figures. The main difference in terms of teacher salary results from their location: Rustavi's proximity to Tbilisi is likely to affect the average of teachers' salaries.

Training cost for the occupation welder (12) per trainee and year

training institute	Rustavi VET Center "Modusi"	Kutaisi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	18	11	15			
trainer cost [GEL]	911	661	786	33%	661	25%
equipment cost [GEL]	706	978	842	35%	978	37%
material cost [GEL]	259	319	289	12%	319	12%
total **direct** cost [GEL]	1.876	1.958	1.917	80%	1.958	75%
total **indirect** cost [GEL]	583	389	486	20%	658	25%
total cost [GEL]	2.459	2.347	2.403	100%	2.616	100%

5.6.5 Tile setter

Tile setter courses can be done at relatively modest costs. As reported from Kutaisi VET Centre, employers increasingly demand on workforce being qualified in both tile setting and plumbing. Tile setter courses are completed after 5 months.

Training cost for the occupation tile setter (5) per trainee and year

training institute	Kutaisi VET Centre	Khidistavi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	18	20	19			
trainer cost [GEL]	179	75	127	36%	179	19%
equipment cost [GEL]	63	10	37	10%	63	7%
material cost [GEL]	33	60	46	13%	33	4%
total **direct** cost [GEL]	275	146	210	60%	275	30%
total **indirect** cost [GEL]	389	318	141	40%	648	70%
total cost [GEL]	664	464	352	100%	922	100%

5.6.6 Plumber

Plumbers work mainly on self-employed base in Georgia, and to find a good plumber is even in urban areas a challenge. Therefore, plumber courses are on demand. Regardless the facts that in various courses currently financed by USAID programs basic skills during short-term courses are implemented, long-term training (i.e. 9 months) is particularly attractive in the regions outside Tbilisi.

Beside the facilities provided at Tbilisi Multiprofile VET Centre (see p. 26), all centres offer sound work stations for both practical and theory training. Differences in trainer salaries were discussed already above. Material costs at Batumi VET Centre appear to be standard since costs for protection clothes are included.

Training cost for the occupation plumber (9) per trainee and year

training institute	Rustavi VET Center "Modusi"	assumed reference and % of total	
number of trainees [n]	15		
trainer cost [GEL]	1.107	1107	48%
equipment cost [GEL]	57	57	2%
material cost [GEL]	491	491	21%
total **direct** cost [GEL]	1.655	1655	72%
total **indirect** cost [GEL]	583	648	28%
total cost [GEL]	2.238	2.303	100%

5.6.7 Tile Setter/Plumber

This occupation currently taught exclusively at Kutaisi and Akhaltsikhe VET Centre strikes by its homogenous cost structure. Since both VET centres proved great commitment throughout the interviews and showed impressively maintained and run training facilities, both cost schemes can be used as standard cost base for further voucher-related use. Since this training program was designed according to labour market demands, both VET institutes should be closely involved in the standardisation process.

Training cost for the occupation tile setter / plumber (12) per trainee and year

training institute	Akhaltsikhe VET Center	Kutaisi VET Centre	arithmetic mean and % of total cost		assumed reference and % of total	
number of trainees [n]	17	17	17			
trainer cost [GEL]	486	395	441	52%	395	30%
equipment cost [GEL]	71	123	97	12%	123	9%
material cost [GEL]	86	140	113	13%	140	11%
total **direct** cost [GEL]	643	658	650	77%	658	50%
total **indirect** cost [GEL]	562	389	190	23%	648	50%
total cost [GEL]	1.205	1.047	841	100%	1.305	100%

5.7 Medical sector

5.7.1 Nurse Assistant

The nursing training courses take only place at Batumi VET Centre. Since nurse training is considered a higher education career, Batumi VET Centre offers in its curriculum exclusively theoretical know-how. All practical competences must be acquired in a hospital during internships. As agreed on the kick-off workshop, costs incurred by in-company training should not be assessed in this study. Certificates are issued by MoES after 18 months.

Training cost for the occupation nursing (17/18) per trainee and year

training institute	Batumi VET Centre	assumed reference and % of total	
number of trainees [n]	23		
trainer cost [GEL]	144	144	16%
equipment cost [GEL]	19	19	2%
material cost [GEL]	97	97	11%
total **direct** cost [GEL]	260	260	29%
total **indirect** cost [GEL]	317	648	71%
total cost [GEL]	578	908	100%

5.7.2 Dental Technician Assistant

Like nursery, dental technician competences usually are considered belonging to higher education careers. Nonetheless, Batumi VET Centre provides its trainees with sound, sufficiently equipped work stations for basic training. Job opportunities are reported to be good, demand on this courses is, consequently, strong. High expectations from employers' side led to a course duration of 18 months.

Training cost for the occupation dentistry assistent (18) per trainee and year			
training institute	Batumi VET Centre	assumed reference and % of total	
number of trainees [n]	40		
trainer cost [GEL]	195	195	19%
equipment cost [GEL]	72	72	7%
material cost [GEL]	123	123	12%
total **direct** cost [GEL]	390	390	38%
total **indirect** cost [GEL]	317	648	62%
total cost [GEL]	707	1.038	100%

5.8 General services

5.8.1 Repairer of Household Appliances

Though being taught at another VET centres mostly with a duration of 18 months, this occupation was assessed exclusively at Batumi VET and Rustavi “Modusi” VET Centres. Given the high diversity of training program and purposes and, consequently, the non-comparability of related costs at different VET centres, cost assessment is merely impossible. The course title “repairer” reveals that a large number of technical items can be in the course’s focus: e.g. mobile phone repairer (Tbilisi “Spektri”), TV repairer (Rustavi “Modusi”), and repairer of heating systems/AC (Kutaisi and Kobuleti). Material costs are, beside appropriate tools (GEL 50 at Batumi VET which have to be borne by the trainees), negligible given the relentless supply of broken technical items. In order to define diverse trainer costs for VET centres at Tbilisi and outside, both institutes were selected.

Training cost for the occupation repairer of household (12/18) per trainee and year

training institute	Rustavi VET Center "Modusi"	Batumi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	17	31	21			
trainer cost [GEL]	932	275	556	56%	932	53%
equipment cost [GEL]	65	124	132	13%	124	7%
material cost [GEL]	12	60	27	3%	60	3%
total **direct** cost [GEL]	1.009	459	715	72%	1117	63%
total **indirect** cost [GEL]	583	317	283	28%	648	37%
total cost [GEL]	1.592	776	998	100%	1.765	100%

5.8.2 Hairdresser

Since both Akhaltsikhe and Kachreti VET Centre provided sound and suitable training facilities for hairdressers, it seems sensible to rely mainly on those two VET centres while appraising cost structures related to hairdresser training. Material costs at Kachreti VET Centre are far beyond average. It has to be added, however, that material cost calculation at Kachreti was done merely be relying on only one course which took place recently. Under this given circumstances, the arithmetic mean between Akhaltsikhe and Kachreti VET Centre seems sensible.

Training cost for the occupation hairdresser (5/12) per trainee and year

training institute	Akhaltsikhe VET Center	Kachreti VET Centre	Khidistavi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	23	16	20	20			
trainer cost [GEL]	296	306	84	229	34%	306	28%
equipment cost [GEL]	53	41	36	43	6%	53	5%
material cost [GEL]	13	194	26	78	12%	78	7%
total **direct** cost [GEL]	363	541	145	349	52%	436	40%
total **indirect** cost [GEL]	562	730	318	322	48%	648	60%
total cost [GEL]	925	1.271	463	672	100%	1.084	100%

5.8.3 Sewing training

A large number of VET centres offer sewing courses. Therefore, base for comparison is relatively broad. Major differences are between rehabilitated and non-rehabilitated centres. Since the sewing classes at Kutaisi VET Centre were the largest and the material /equipment turnover tends to be the highest, equipment costs from Kutaisi are assumed standard.

It may be asked, however, what the income generation opportunities of graduates are like. In some institutes two levels of courses are offered: whereas the first level leads to a basic certificate after one year, the second year course develops more sophisticated artisan competences.

Training cost for the occupation sewing (12/24) per trainee and year

training institute	Tbilisi Multiprofile VET	Akhaltsikhe VET Center	Toidze Arts Centre	Tbilisi VET Center	Kutaisi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	27	16	78	57	61	48			
trainer cost [GEL]	247	537	376	170	647	395	32%	537	29%
equipment cost [GEL]	55	78	39	228	527	185	15%	527	29%
material cost [GEL]	31	47	77	112	0	53	4%	112	6%
total **direct** cost [GEL]	334	662	493	510	1.173	634	51%	1176	64%
total **indirect** cost [GEL]	664	562	612	788	389	603	49%	648	36%
total cost [GEL]	998	1.224	1.105	1.298	1.563	1.238	100%	1.823	100%

5.9 Transport and transport services

5.9.1 Auto Mechanic

This 12 months course is often combined with welding courses and preparatory classes for driving licence training. Not surprisingly, auto mechanic courses take place at various VET centres. Due to its proximity to Tbilisi, trainer costs in Rustavi “Modusi” VET centre have to be higher. Tbilisi VET centre does not offer auto mechanics training at the moment; figures from this VET centre appear, thus, obsolete.

Particularly both Kutaisi and Akhaltsikhe VET centres offer sound facilities and equipment for proper training and reported also constant and reliable utilisation.

Since Akhaltsikhe’s equipment was merely new, figures provided seem more appropriate for defining the base for a future VET financing model. .

Perhaps due to the limitations of getting qualified trainers for auto mechanics, teacher salaries should be subject of further discussion.

Training cost for the occupation automechanics (12) per trainee and year

training institute	Rustavi VET Center "Modusi"	Tbilisi Multiprofile VET	Akhaltsikhe VET Center	Batumi VET Centre	Kutaisi VET Centre	arithmetic mean and % of total cost		assumed reference and % of total	
number of trainees [n]	31	20	19	20	51	28			
trainer cost [GEL]	807	274	435	269	404	438	36%	435	27%
equipment cost [GEL]	151	47	410	372	183	233	19%	410	26%
material cost [GEL]	0	15	66	102	40	45	4%	102	6%
total **direct** cost [GEL]	958	336	910	743	627	715	59%	947	59%
total **indirect** cost [GEL]	583	664	562	317	389	503	41%	648	41%
total cost [GEL]	1.541	1.000	1.473	1.061	1.016	1.218	100%	1.595	100%

5.9.2 Operator of Agricultural Machines

Both VET institutes offer relatively similar cost structures albeit course duration differs widely (3 against 12 months). It has to be mentioned, however, that particularly equipment costs should be, real circumstances applied, much higher. Both centres rely on out-dated, completely depreciated tractors for practical training purposes. Simulator training hours prior to real-life driving training take place at machines being often 30 years old. In this regard, equipment costs as part of the overall costs should be reconsidered, e.g. by estimating the purchase price for a working tractor for training purposes or for a modern simulator, etc.

Training cost for the occupation operator of agriculture machines (3/12) per trainee and year

training institute	Akhaltsikhe VET Center	Khidistavi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	15	20	18			
trainer cost [GEL]	560	47	303	33%	560	30%
equipment cost [GEL]	209	372	291	32%	372	20%
material cost [GEL]	283	0	142	16%	283	15%
total **direct** cost [GEL]	1.052	419	735	81%	1215	65%
total **indirect** cost [GEL]	562	318	176	19%	648	35%
total cost [GEL]	1.615	737	912	100%	1.862	100%

5.10 Agriculture

5.10.1 Beekeeper

Beekeeping courses are very common at VET centres being located in rural areas. Practical training has to be carried out mainly in summer.

The large difference in equipment costs is striking. This is mainly because at Kobuleti VET Centre a number of items was recorded which are inevitable for proper beekeepers training, e.g. hygienically unobjectionable storage facilities.

Training material costs at Kutaisi VET Centre include those costs for proper protection clothes.

Training cost for the occupation beekeeping (9/12) per trainee and year

training institute	Akhaltsikhe VET Center	Kobuleti VET centre	Kutaisi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	16	15	17	16			
trainer cost [GEL]	476	424	231	377	43%	476	31%
equipment cost [GEL]	44	289	103	145	17%	289	19%
material cost [GEL]	15	53	121	63	7%	121	8%
total **direct** cost [GEL]	535	766	455	585	67%	886	58%
total **indirect** cost [GEL]	562	513	389	293	33%	648	42%
total cost [GEL]	1.097	1.278	844	878	100%	1.533	100%

5.10.2 Farmer

While assessing the diverse farmer training programs at Georgian VET centres, proper cost analysis was complicated by the obvious differences in program contents. At Kachreti VET Centre, for instance, farmer training contains a module of how to carry out treatment of dairy products, i.e. sterilisation and lactate measurement procedures or conservation treatment of fruits. Appropriate equipment is provided, thus inflating equipment costs which are not available at the other two institutes.

Often the farmer course contains training in operation of agricultural machines. Albeit this is highly sensible, it offers complications for proper calculation since not all VET centres offer these modules about how to drive tractors and trucks.

Which modules should be part of a general farmer curriculum cannot be assessed through this study. If the treatment of dairy products and fruit shall be part of it, then at *Kachreti VET Centre* sound investment figures for the related technical items can be found and should become standard. Therefore, the average cost scheme is the suggested standard.

Training cost for the occupation farmer (24) per trainee and year

training institute	Akhaltsikhe VET Center	Kachreti VET Centre	Khidistavi VET Centre	arithmetic mean	and % of total cost	assumed reference	and % of total
number of trainees [n]	30	15	17	21			
trainer cost [GEL]	445	848	289	527	29%	527	25%
equipment cost [GEL]	128	2.245	42	805	45%	805	38%
material cost [GEL]	176	266	1	147	8%	147	7%
total **direct** cost [GEL]	749	3.358	331	1.479	82%	1479	70%
total **indirect** cost [GEL]	562	730	318	322	18%	648	30%
total cost [GEL]	1.311	4.089	649	1.802	100%	2.127	100%

5.11 Budget Calculation Model

In order to get a grasp of costs related to diverse training courses, a yet very simplified calculator was developed. The calculator is based on the assumed reference costs. This assumed reference costs (see tables in chapter 5.1.-5.10) were calculated after having assessed the 25 occupational profiles at the 15 selected VET centres. Therefore, all the costs which were registered throughout the cost assessment mission are included in the budget calculation model.

Additionally, a general discount of 20% is calculated for the teachers' salaries for the VET centres outside Tbilisi region, i.e. Tbilisi and Rustavi since the latter incurred similar salary costs due to its proximity to the capital (column *Region Tbilisi*: yes or no). Though the salary difference per hours paid at VET centres at Tbilisi and those outside the capital is even higher, it turned during the analysis that this effect is outweighed. At the regions both trainers and instructors tend to give more hours, thus gaining higher total salary amounts.

Budget calculator

Occupation	Region Tbilisi?	trainer cost [GEL]			equipment cost [GEL]	material cost [GEL]	direct cost [GEL]	indirect cost [GEL]	total cost [GEL]
		original assumed reference [GEL]	adjustment due to region	final assumed reference					
automechanics (12)	no	435	-20%	348	410	102	860	484	1.344

6 Recommendations and next steps

The current situation at a large number of VET centres appears to the consultant, after having visited the 15 selected VET centres, dichotomised: the rehabilitated VET centres, at one side, are able to offer a selection of curriculum-based training programs which are demanded by trainees and, presumably, also by employers. The majority of the non-rehabilitated centres faces at the other hand often merely basic problems, e.g. completely out-dated technical equipment, non-availability of reliable heating, trainers lacking required technical, insufficient training material to some extent and training skills. In this regard, the calculation of finance distribution schemes for both rehabilitated and non-rehabilitated VET centres based exclusively on costs incurred by the actual VET system and thus analysed throughout this study seems to be problematic. It would severely discriminate those VET centres having not undergone renovation and investment in both technical equipment and building infrastructure.

Moreover, both non-rehabilitated and rehabilitated VET centres showed an overall tendency to neglect regular maintenance (and as a consequence respective costs do not occur). Resulting in most cases from reported budgetary constraints, it has to be taken, however, into serious consideration that the calculation of future VET financing models should pay attention to the current weak level of technical equipment in many VET centres. While visiting the selection of 15 VET centres and appraising the technical equipment in financial figures, the consultant felt challenged by the dilemma that all too often training equipment, in particular machinery and tools, was both completely out dated and, thus, fully depreciated. Due to maintenance carried out by VET centres' technical personnel those depreciated equipment is, however, still in use. It is even more the *regular technical base* for vocational training.

Since proper calculation of training costs should include sound figures for equipment and, consequently, depreciation which reflects real costs incurred, the calculation of the model-type VET centre shall be mainly based on *assumptions* on how much the required technical equipment would cost over its lifetime. Those assumptions were included in the budget calculation model (see 5.11). In some cases which are quoted in chapter 5, figures received among similar training programs could be used reciprocally in order to come to a more realistic cost scenario. Therefore, the registered figures of the VETs' current budgets are still of limited use for a direct translation into concrete numbers for voucher value calculation. This aspect was broadly discussed during the Georgia VET workshop held on May 4th 2010 at GTZ's Eschborn head office. It was, thus, agreed upon at that workshop that, as a future step on the roadmap towards an e.g. voucher-funded VET financing system, two of all 25 occupational profiles shall be selected for an initial pilot voucher implementation phase. By applying the ideal figures of those two selected occupational profiles from the tables at p. 30-55, it should be feasible to appraise and calculate the costs for carrying out the related vocational training appropriately and properly according to the curriculum or occupational standard.

VET centres are not allowed to borrow money from banks. Consequently, it should be taken into consideration that appropriate capacities for strategic financial management must be build and developed. VET centres are so far almost completely dependent on allocations from the government and, additionally, from donors. Therefore, taking loans in order to finance equipment over long-term is not considered part of possible funding mechanisms yet.

While analysing the costs incurred by occupational training in the diverse VET centres the research team faced another, yet severe, challenge: due to the current non-availability of sound training standards, comparing costs of one curriculum carried out by two or more VET centres becomes often rather artificial. So far, virtually every VET centre applies on the ground its own definition what proper occupation training should include, thus rendering costs incurred on a base which can be compared with less precision.

Notwithstanding, by focusing strictly on detailed survey of available equipment, teachers' salaries incurred by training hours given, equipment utilisation, material costs incurred by proper technical training and separating administrative overhead costs from direct training-related costs the researchers endeavour to diminish that, albeit inevitable, lack of precision.

Both levels of VET centre need to struggle, however, for increased acceptance among participants. In virtually all VET centres visited the number of students enrolled differed, often substantially, from the number of students seen on stage.

Upon completion of this study, it should be the logical next step to initiate a dialogue between the relevant stakeholders of the VET system, i.e. relevant ministries, VET centres, employers, donors, in order to negotiate further mutual demands on an alternative financing system, to agree upon a road map for implementation and to define feasible time frames, particularly for the recommended pilot phase outlined below. The latter could be started immediately and it seems wise to benefit from various aspects of the prevailing after-assessment momentum. At the VET centres assessed large efforts were carried out in order to obtain the numbers and figures required for this research. Therefore, at this very stage it will be much easier to get additional figures which are eventually required for detailed calculation of ideal costs. It could be taken also into consideration to calculate the cost for each occupation based on the occupational profile: What is needed for a training provider in order to fulfil the requirements of practical and theoretical training for this specific occupational profile.

In this regard, the pilot phase could be an appropriate starting point for testing the effectiveness of demand-driven VET financing schemes. The outline for the pilot could be the following:

- Selection of two occupational profiles for the pilot phase; based on the previous research, both construction and tourism sector could be suitable fields for the pilot since further costs' and benefits' analysis incurred at the employers' side are envisaged.
- Calculation of ideal-typical costs based on the cost schemes explained in chapter 5.
- Selection and inclusion of VET centres offering appropriate training programs. VET centres' participation should be agreed beforehand. The experience at VET centres will be a rich resource for successful design of this project phase.

It could be also paid particular attention to an improved inclusion of employers in the VET system. Employers often complain about the non-market conformability of VET centre's activities and curricula. Though, at the other hand, the overall purpose of VET is to meet employers' demands and provide the labour market with well-qualified personnel, more actions for higher employers' involvement appear sensible. GTZ envisages an additional study about costs and benefits for employers taking part and contributing to the VET system and its activities.

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Annex: Matrix for qualitative centre rating

Evaluation Chart - Criteria List							
General state of the building and training facilities (25%)		Stage of preparation for cost-assessment interview (25%)		Usage of the training facilities (25%)		Conformability of the VET's Strategy with market demand (25%)	
Sub criteria	Indicators	Sub criteria	Indicators	Sub criteria	Indicators	Sub criteria	Indicators
Building's size accordingly to courses offered	Ratio of used and unused part of the building	Availability of numbers	Numbers available and pre-researched before interview	Visual impression of utilisation	Number of students seen in training facilities according to number of registered trainees	Integration of technical skills training with business and social skills training	Entrepreneurial skills training is part of the curriculum
First impression about current status of maintenance	Building completely or partly renovated	Participants at the interview	People show competence about required figures and ability to interpret	Relevance of training equipment for trainings assessed	Utilisation of seen training facilities		
Maintenance of training facilities	Training facilities in functioning shape						

Qualitative centre rating						
	Training centre	General state of the building and training facilities (25%)	Stage of preparation for cost-assessment interview (25%)	Usage of the training facilities (25%)	Conformability of the VET's Strategy with market demand (25%)	Result
		5 = outstanding, 0 = failure				
rehabilitated	Rustavi VET Centre "Modusi"	3	3	3	3	3,0
	Tbilisi IT VET Centre	4	4	Not checked	5	4,3
	Tbilisi VET Centre "Spectri"	3	3	3	4	3,3
	Tbilisi VET Centre "Icarus"	5	4	Not checked	4	4,3
	Akhaltsikhe VET Center	5	5	Not checked	3	4,3
	Kobuleti VET Centre	4	5	4	4	4,3
	Kutaisi VET Centre	5	5	4	4	4,5
	Kachreti VET Centre	5	5	Not checked	4	4,7
non-rehabilitated	Tbilisi VET Centre	3	5	3	4	3,8
	Tbilisi Multidiscipline VET Centre	2	5	3	3	3,3
	Tbilisi VET Centre "Margi"	2	2	1	1	1,5
	Toidze Arts Centre	0	1	0	1	0,5
	Tbilisi Multiprofile VET	1	4	1	2	2,0
	Khidistavi VET Centre	2	3	3	4	3,0
	Batumi VET Centre	3	5	4	5	4,3

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