



LABOUR MARKET AND VOCATIONAL EDUCATION AND
TRAINING
CHALLENGES AND PROSPECTS FOR COUNTRIES
ENGAGING IN THE EUROPEAN NEIGHBOURHOOD POLICY
SOUTHERN CAUCASUS – ARMENIA

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EXECUTIVE SUMMARY

Armenia entered the group of countries sharing the European Neighbourhood Policy in 2004, and the Armenia–European Union Action Plan (up to 2010) was approved on 14 November 2006. Closer integration with the EU in key political, legal, social and economic areas will be given new impetus over the coming decade.

Armenia is a resource-poor country that is relatively isolated from key neighbouring markets. Its educated and entrepreneurial labour force and potential support from the diaspora¹ are usually seen as Armenia's main competitive advantages.

Armenia's macroeconomic performance has been favourable in recent years. Consumer spending has increased significantly, supported by higher incomes and migrants' transfers.

As a result of double-digit annual growth during the past three years, by 2006 Armenia expects to recover from the deep GDP contraction that characterised the initial phase of the transition process. Indicators of poverty decreased from 50.9% of the population in 2001 to approximately 42.9% in 2003. Despite its limited natural resources, Armenia's GDP growth rate in 2005 reached 13.9%, a figure which exceeded IMF projections.

There is debate about the drivers and features of Armenia's rapid growth rate, since the country has limited natural resources and a small domestic market, and suffers from a number of disadvantages, including relative isolation. Emigrants' remittances and official development assistance have contributed to part of the growth and to macroeconomic stabilisation. Construction, services and retail trade have increased their contribution to the growth in the past five years. For years strong growth was driven primarily by recovery concentrated in a few clusters and regions; the substantial changes in enterprises' and investors' behaviour that would be needed as sources of expansion and job creation did not support this rapid growth.

Armenia's strong economic growth in the period 1994–2003 occurred in conditions of declining overall employment, particularly in non-agricultural sectors. Decreasing demographics, recent increases in productivity in industry, and a shift of labour towards agriculture and widespread informal employment explain this challenging feature of Armenian growth. A substantial shift of the labour force into agriculture occurred, but the share of the sector in GDP has nonetheless decreased, indicating decreasing productivity of the sector that employs almost half of the employed population.

Employment in formal enterprises is only one part of total employment, while informal jobs and precarious, temporary employment are a significant feature. This kind of employment flexibility is, however, not supported by an appropriate system of social security and access to employability training that would help the active population to cope with transitions between labour market statuses.

Basic labour market indicators for the period 2000–04, based on the Labour Force Survey (LFS), show improving rates. But these remain very far from targets in the EU, of which Armenia is now a neighbour in policy terms, following the recent approval of the Action Plan ENP up to 2010. Even compared with other CIS countries, Armenia displays problematic labour market indicators, according to LFS data of the National Statistical Service (NSS) for 2004: the activity rate is less than 60% and the employment rate is approximately 41%; the unemployment rate remains high at 32%.

The first years of Poverty Reduction Strategy Paper (PRSP) implementation achieved positive results in terms of reducing poverty, expressed in a strong decline in both extreme poverty and income and expenditure inequality in 2004. It had not been expected that the actual figure of 39% of the population living below the poverty line would be achieved, under the PRSP, before 2006, and the 7.9% figure for extreme poverty had not been expected before 2013.

But in parallel to the positive poverty reduction trends in 2003–04, a number of problems emerged, in particular in terms of the imbalances in regional development, as well as in the living standards of vulnerable social groups. Poverty reduction policy needs to emphasise integrated employment promotion measures, beyond the social relief and consumption-smoothing measures that have a short-term effect, and that do not attack the roots of multidimensional poverty and vulnerability that are a result of transition, but show a resistant character.

It is important to bear in mind that much of the reduction in poverty levels depends on the increase in social transfers, in particular the increase in pensions. In fact, the poverty rate without social transfers

¹ Armenian emigrant communities worldwide.

remained constant and high (49.9%) in 2003–04. This is a critical finding, which highlights the possible risk that the decline in poverty will not be sustainable if the role and share of increases in employment income do not grow more substantially in the poverty reduction policy mix in the future.

The challenge that Armenia faces is twofold. First, it needs to sustain high growth rates for some years to come. Second, growth needs to undergo a qualitative change towards a more positive impact on reductions of poverty and inequality, recovery of employment and economic activity of the labour force, and improved living standards. Given the weaknesses of Armenian growth patterns, it is important to implement policies to ensure its sustainability. More intensive enterprise restructuring, the formation of new enterprises, better investment-promotion measures, and support for adequate human capital development are likely to contribute to the qualitative change in growth. Continued fiscal and financial sector reforms remain key to sustaining growth and reducing poverty.

Foreign investment increased in 2004–05, partially stimulated by the renewed interest on the part of the Armenian diaspora in setting up businesses. However, investment from other sources remained relatively low, deterred by the small size of the domestic market, the population's low purchasing power and the country's partial isolation in the region.

Demographic trends have been determined by high emigration and declining birth rates, resulting in an ageing population profile. Although the country's emigration rates have recently declined, the damage to the Armenian economy may prove to be long-lasting. Around a fifth of the population emigrated during the transition period. The first migrants were skilled people from urban areas who were active in industry, services and science. The resulting 'brain drain' presents a challenge for socioeconomic development in future years. Active policy to explore the economic returns of emigration needs to be implemented in order to improve the inputs of the Armenian diaspora and recent labour emigrants into productive investments, as well as into the transfer of technology and skills.

Human resources are Armenia's the major asset, and policy needs to maintain education and training reform as high priorities. Maintaining the consistency of the VET reform process and the focus on lifelong learning across the education system will require the enhancement of the technical, institutional and financial capacity of the government. Coordination of donor assistance towards sector policy support has acquired a renewed importance.

A large proportion of those who are registered unemployed are highly skilled professionals (34% of total), against 20% of individuals without professional qualifications. In the first group, engineers of various types (including programmers) are the largest category, followed by technicians, teachers, accountants and nurses. Employers' requests to the Employment Services are predominantly to fill jobs for skilled workers and skilled professionals. However, the persistence of a substantial proportion of people in long-term unemployment (more than 80% have been unemployed for over a year) shows that there is a serious mismatch between employers' requirements (and conditions/wages) and job seekers' skills (and expectations/wages).

Many skilled professionals lack the core skills (ITC, English, communication) that employers require on top of the main professional qualification; this gap is recognised by all sides as a serious barrier to relevant employment.

Analysis of the evolution of graduates from public VET has shown a positive upturn during the past five years, following a steep decline during the initial transition phase. Students' preferences in terms of vocational choices can be partly assessed by comparing the behaviour of the various vocational groups in the relevant period, although the persisting system of state regulation of enrolment also influences these figures. Agriculture remains the group with the smallest number of graduates, while the agriculture sector is by far the largest in terms of labour activity/employment (mainly on small/family farms). Pedagogy strengthened its position, and its 2004 cohort represents approximately a quarter of the total VET graduates. The next two largest groups were healthcare and economic studies, each with approximately 20% of graduates in 2004. Industry and construction, as well as transport and communication, were among the smallest vocational groups in terms of graduates.

But how do these young entrants into the labour market cope with the difficult employment situation in Armenia? No consistent tracer studies of the transition from school to work are carried out, and the follow-up of graduates by some VET schools has limitations in terms of objectivity and coverage. Despite the ongoing VET reform processes, the system does not have a policy or mechanisms to monitor outcomes consistently, in particular the features and trends of the transition of VET graduates into the labour market.

Armenia, like other CIS countries, faces a problem of increasing skills inequality and the eventual segmentation of young people who have low skills or lack professional competences for employment.

Every year a large number of young people with secondary education are likely to enter the labour market or other forms of active life, but without adequate professional skills. Although the size of this group is tending to decrease (from 14,300 in 2001 to 11,700 in 2004), it is at risk of higher than usual youth disadvantage in the labour market if access to other forms of relevant and recognised training for jobs is not facilitated. Given the strictly academic and theoretical nature of secondary general education, Matura diplomas in fact prepare young people only for further study, not for entry into employment or other forms of active life.

In view of this situation, which is highly relevant in a country whose main asset is its human resources, education policy has an opportunity to revisit the purposes and approaches of secondary general education on the one hand, and the to implement the necessary reform of adult learning on the other, as well as to expand the capacity and flexibility of VET pathways, in order to cater for young people leaving secondary school for active life, and to offer second chances for those without skills.

Sustainable further progress in poverty reduction will also depend much on the dynamism of the supply side in the labour market. The existence of pockets of low-skilled young people can hamper the competitiveness of the economy, and can contribute to the intergenerational transmission of skills-based labour market vulnerability.

Since 2003, with EU assistance, the Ministry of Education and Science (MoE) has pursued continuous work on the reform of the VET system. As a result of this cooperation, three major documents have been elaborated and adopted:

1. VET Strategy (2004)²;
2. VET Law (2005);
3. VET Modernisation Priorities Paper (2005–08)³.

Implementation of the action plan for the latter has not yet been fully achieved: the government needs to enhance resources and consistent positions in order to sustain effective implementation. Besides the Medium Term Expenditures Framework (MTEF) needs to incorporate the policy measures endorsed by the Government and the MoES in these strategic documents.

The VET Strategy addresses major issues that presuppose some significant changes in the VET system in Armenia. The main goals and objectives of the strategy include:

- an open and democratic education system;
- continuity in education;
- quality of education;
- respect for individual capacities and inclinations;
- responsiveness to labour market trends and demand;
- efficiency of expenditure;
- organisation of a unified statutory framework;
- rationalisation of management and administration of VET institutions;
- social partnership;
- transparency and accreditation;
- integration with international developments in education;
- lifelong learning.

The VET Modernisation Priorities Paper focuses on two major objectives for initial (craft) and middle VET: quality and effectiveness. It puts forward six VET modernisation priorities:

- competence-based VET standards;
- quality monitoring mechanisms;
- the creation of technical support and quality assurance infrastructure;

² Full title: Strategy of Preliminary (Crafts) and Middle Professional Education and Training.

³ Full title: VET Modernisation Priorities Paper and Action Plan (2005–08).

- improvement of cost efficiency and educational outcomes;
- optimisation of VET financing;
- building national capacity for VET modernisation implementation and monitoring.

Despite the relative effectiveness of the Tacis project, its outcomes were constrained by a number of factors:

- the limited number of pilot regions and colleges, and of problems addressed;
- resistance to change;
- the fact that the prevailing VET structure in Armenia was not open enough to accept change;
- the lack of a relevant VET support structure (one of the priorities for VET modernisation).

Under the last Tacis Action Programme (2006) the EU will continue its engagement in education reform in Armenia through a sector policy support programme covering two components, VET and social affairs (child care). This sector policy programme will have a transitional dimension in relation to the new European Neighbourhood and Partnership Instrument (ENPI).

In the current phase three key VET reform priorities deserve special attention:

1. educational (qualification) standards;
2. new qualifications framework;
3. establishment of the National Centre for VET Development with clear functions complementary to those of other players, particularly the MoE.

Donor assistance is needed to support further developments of the VET system within a lifelong learning context, based on flexible pathways, responsive to changing skill needs, and matching Bologna principles. Key issues relating to donor assistance for the development of the education and training sector, particularly VET, include:

- governance and empowerment:
 - systemic and better participation of social partners in skills development policy and programmes;
 - empowerment of local and regional players (schools, local authorities, civil organisations) in all issues of skills development strategy and implementation, with a view to achieving better responsiveness to the local socioeconomic situation;
- competence-based education and training:
 - revision of the qualifications system based on a new conceptual basis in line with international developments and the challenges of closer cooperation and integration with Europe in the framework of the ENP;
 - revised occupational and educational profiles;
 - competence-based learning;
- pathways and lifelong learning:
 - quality assurance;
 - adult learning development strategy and programmes;
 - recognition of competences acquired through various forms of learning, as a necessary incentive for lifelong learning and the enhancement of employability;
- policy monitoring and accountability:
 - capacity building in relation to information and analysis of education and training system outcomes, particularly the transition from school to work.

Many of Armenia's challenging socioeconomic objectives will require more favourable political conditions, which in turn depend on the establishment of fair and stable relations among neighbours in the region. More vibrant job creation and a shift of the labour force from low-productive agriculture to more productive branches and enterprises are necessary to ensure the success of policies aimed at a reduction in poverty, integration into global markets, and sustainable human development.

INTRODUCTION

1.1 Political context

Armenia, together with the two neighbouring states of the Southern Caucasus, Georgia and Azerbaijan, belongs to the last group of countries to enter the European Neighbourhood Policy (ENP), joining the previous group of CIS countries that share borders with the enlarged EU. Based on a recommendation of the European Commission, the European Council endorsed the inclusion of Armenia, Azerbaijan and Georgia in the ENP in June 2004.

The EU has a strong interest in the stability and development in the Southern Caucasus region. Indeed, the European Security Strategy, adopted by the European Council in December 2003, clearly identifies this as one of the regions in which the EU should take a 'stronger and more active interest'.

The country joined the World Bank in 1992 and the World Trade Organisation (WTO) in 2003.

Armenia has experienced a high turnover of policy officials (since 1991 there have been ten prime ministers). This has contributed to uncertainty and instability, although a general commitment to reforms has prevailed, and has served the country well. Since elections were last held in 2003, the powerful executive branch and the pro-presidential majority in the parliament have dominated politics in Armenia.

Armenia started early reforms that laid the foundation for GDP growth. However, the reforms slowed after 1997, and until 2001 the government did not take sufficient action to liquidate large loss-making industrial enterprises, reduce regulatory barriers, or implement other measures to foster private sector growth.

The transition process in Armenia was accompanied by such destabilising factors as a very serious energy crisis in the first half of the 1990s, a catastrophic earthquake in 1988 in the north of the country, conflict and war with Azerbaijan and related blockades of major transportation routes, and a significant brain drain during waves of emigration.

Progress toward a resolution of the longstanding dispute over Nagorno-Karabakh has been slow, leaving Armenia partially isolated in the region, hampering the country's economic development and largely excluding it from participation in regional projects, in particular the newest oil and gas pipelines from the Caspian sea (the Baku–Tbilisi–Ceyhan oil pipeline has been operational since 2005), on which Armenia is largely dependent for energy.

Recent donor-country strategy papers⁴ have recommended priorities to enable Armenia to continue its progress towards a market system. One objective is to improve the business environment by reducing corruption and arbitrariness and by emphasising the rule of law. Another is to continue to strengthen the relatively underdeveloped financial sector. With privatisation nearly complete, accelerating postprivatisation restructuring and improving corporate governance in the enterprise sector become priorities, as do promoting the commercialisation of public infrastructure and utilities, establishing competition in the market, and improving tax and customs administration.

1.2 Objectives of the study and acknowledgements

This in-depth study on challenges and prospects for the labour market and VET in Armenia is a contribution to ENP programming and, in particular, to the formulation of HRD-related elements in the future ENP Action Plan for Armenia. The ETF has carried out similar studies in the three countries of Southern Caucasus during the same period. A common concept paper covering key issues and the study brief has supported comparability and structural consistency of the studies in the three countries concerned.

A Country Analysis, which was finalised in mid 2005, drafted at the request of DG Relex, and available through the ETF portal⁵, preceded this study. The body of analysis and recommendations expressed in the ETF Country Analysis is reflected in this report, and developed further.

A major objective of the study is a comprehensive and forward-looking examination of the VET system and its links with the labour market, economic trends and existing employment policy. The analysis tackles strategic questions (from a medium-term perspective), as well as urgent questions that might

⁴ EBRD, February 2006.

⁵ Published by the ETF at www.etf.eu.int

require more prompt action. Eventually the study will contribute to policy development with proposals based on coherent and objective analysis. Studies on the VET system in Armenia have been carried out by the ETF in recent years, though these studies had the character of brief descriptive reviews.

Users of the present study are EC services for programming purposes, national decision makers and other stakeholders for policy and programming, and relevant donors for possible coordination of interventions.

A team of national and ETF experts carried out the research, analysis and synthesis presented in this final report drafted by the ETF.

The ETF thanks all participating experts for their commitment and input, as well as all those individuals and organisations in Armenia who shared their views and experiences in workshops and debates.

The National Observatory Armenia actively participated in data gathering and analysis, and gave timely and adequate responses to all requests for information. The ETF is particularly grateful to Mr Aram Avagyan, Head of the National Observatory Armenia, for his valuable input in the analysis presented in this report.

A particular word of recognition is addressed to the staff of a number of key institutions who contributed their valuable expertise to this study: the National Statistical Service, the State Employment Agency, Department of Vocational Education under the Ministry of Education and Science and the PRSP Unit.

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With regard to terminology, this report uses 'primary VET' to refer to the Armenian title of 'craft professional' (preliminary professional), and 'secondary VET' to refer to 'middle professional education'.

The team of experts who carried out the study were:

- Aram Avagyan, National Observatory Armenia
- Eduarda Castel-Branco, ETF
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1.3 Economic change and key socioeconomic policies

The Southern Caucasus countries – Azerbaijan, Armenia and Georgia – have all approved Poverty Reduction Strategies since 2003, and share a number of challenges relating to the transition period:

- a) deep and long economic recession during the period 1991–98, accompanied by strong net emigration and consequent relocation of higher-qualified human resources;
- b) structural changes in labour market participation, particularly an increased proportion of employment in the low-productive agricultural sector, a contraction of employment in industrial branches, growing levels of informal labour market activity, and hidden unemployment in stagnant enterprises;
- c) a certain pattern of under-reform in the transition period that has hindered a more dynamic and free development of entrepreneurship and does not foster the growth of added-value sectors and associated higher-skilled and higher-quality employment;
- d) the lower than expected impact of the substantial foreign investment in the oil sector (in production, and in the large Baku–Tbilisi–Ceyhan pipeline) on sustainable job creation in the two countries concerned (Georgia and Azerbaijan).

Although these countries have active populations with high levels of secondary and post-secondary education, they have witnessed a growing dependence of the economy on low-skilled activities, subsistence agriculture, trade, the exploration of natural resources and the export of goods with a low degree of processing.

Recent analysis has indicated that the stagnant share of manufacturing and an increasing dependence on exports of raw materials and agro-production should be warning signals of the risks of vulnerability to changes in external market conditions.

However, during the period 1998–2003 the three countries registered significant real GDP growth rates: Azerbaijan had an average rate of 9.7%, Armenia 7.7% and Georgia 4.9%⁶. These are the CIS-7⁷ countries that have achieved the best recovery.

1.3.1 Main challenges and the policy framework

Armenia is a small country of 29,800 square kilometres, landlocked between Georgia, Azerbaijan, Turkey and Iran. The borders with Turkey and Azerbaijan are currently closed, and commercial transactions with Turkey are limited to insignificant imports via informal small traders. Armenia has few natural resources, its land is generally mountainous, it relies heavily on imports for its food, and most of its crops are grown on irrigated land. Shortly before transition Armenia suffered an earthquake (1988), with devastating consequences on infrastructure, demographics and the economy. The earthquake zone became particularly vulnerable to poverty.

Armenia was one of the most industrialised economies in the USSR, specialising in high-technology sectors such as chemicals, electronics, software and engineering. Its main markets were all in the Soviet Union, making the Armenian economy vulnerable. Human capital was highly developed, income equitably distributed and most social indicators (life expectancy, literacy) high.

However, it was the industrial sector that showed less resistance during transition: the collapse in output was rapid and the recovery very slow and with uncertain prospects.

In 1993 Armenia's situation was desperate. Many refugees fled from the war zones, and borders were closed or were so insecure that commercial transactions were disrupted or became very costly⁸.

⁶ Loukoianova E. and Unigovskaya A., 'Analysis of Recent Growth in Low-Income CIS countries', IMT Working Paper WP/04/151, August 2004, p. 5.

⁷ CIS-7 countries are the poorest of the CIS and consist of Armenia, Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan. Turkmenistan is not included in the group because of insufficient data.

Transport costs were around 30–50% higher and energy costs 25% higher than if the borders had been open. The country's nuclear reactor was shut down as a precaution, reducing energy supplies by a third. The winter was a particularly cold one, and without heating and lighting, families burned furniture and books, and forests were cut down in certain areas. The collapsing economy led to falling fiscal revenues, and in 1993 the budget deficit reached 55% of GDP.

The reform process started early, in 1991–92, prior to the involvement of international financial institutions. With the ceasefire of 1994 more comprehensive stabilisation and reform programmes were initiated, with the involvement of international financial institutions. These reforms comprised policy actions on many fronts, such as the elimination of wage and price controls, the creation of a liberal trade regime, privatisations, and some improvements in the areas of the social benefits system, education and energy availability. As reforms became more challenging, progress slowed down. Two important areas remain a priority: the environment for private sector development, and public sector reform.

Armenia is currently praised for its positive macroeconomic performance, its commitment to the principles of political pluralism and its market economy. International donors commend its real economic growth averaging 12.4% a year in the past three years, higher consumer spending, tight monetary policy, improved fiscal performance, a narrowing of the current account deficit, better management of external debt, and rapid progress in structural reform.

The EBRD signed a new two-year strategy with Armenia (2006–07) in February 2006⁹. The EBRD notes that poverty reduction remains a priority and overall poverty ratios are improving thanks to government programmes. It also notes progress in reforms to democratise the electoral code, strengthen checks and balances in the political system and improve public governance.

Armenia faces a number of policy challenges, as follows.

- Despite recognised progress in recent years, poverty remains a high priority, particularly in rural areas and among vulnerable social groups.
- The political will to implement these commitments remains uncertain.
- Further steps are needed to fight corruption.
- Armenia's partial isolation in the region impedes economic development and the country's inclusion in regional projects and initiatives.

According to the analysis of the EBRD, Armenia's main transition challenges are¹⁰:

- o to improve the business environments, inter alia by reducing corruption and arbitrariness, and emphasising the rule of law;
- o to continue to strengthen the financial sector by raising the level of financial intermediation through institutional development and increased competition, developing mechanisms for revitalising the securities markets, and introducing regulatory requirements for the development of non-banking intermediaries and of the primary mortgage market;
- o to accelerate postprivatisation restructuring and to improve transparency and corporate governance in the enterprise sector;
- o to promote the commercialisation of public infrastructure and utilities, with an emphasis on transparency and governance;
- o to establish competition in the market;
- o to improve tax and customs administration and ensure debt sustainability.

⁸ The borders with Georgia remained open but were insecure as a result of the actions of various political groups and criminals, mainly on the Georgian side.

⁹ <http://www.ebrd.org/new/pressrel/2006/15feb10.htm>

¹⁰ <http://www.ebrd.org/about/strategy/country/armenia/index.htm>

1.3.2 The economy in Armenia

1.3.2.1 GDP dynamics

Armenia faced a particularly difficult transition period in which the effects of economic transformation, combined with an enormous increase in imported energy prices, severe shortages of foreign exchange, a sharp reduction in credit and the border armed conflict, led to a fall in GDP of more than 50% in the period 1990–93. The collapse of the economy precipitated an unprecedented fiscal crisis and hyperinflation.

Armenia is a resource-poor country with a per capita GDP of USD 893.9 in 2003¹¹. However, strong growth in recent years was instrumental in reducing poverty from 50.9% of the population in 2001 to approximately 42.9% in 2003¹².

In 1993 GDP had shrunk to a level amounting to less than half of the 1990 level, but in the period 1994–2003 growth averaged 8.2% per annum. In the period 1998–2003 the economy exhibited an average real GDP growth rate of 7.7%¹³. In 2004, economic growth in Armenia stood at 10.1%, up from the 7% that was envisaged by the monetary policy programme of the Central Bank of the Republic of Armenia, according to its 2004 report¹⁴. Real economic growth has averaged 12.4% over the past three years.

According to early estimates of the National Statistical Service (NSS), in 2005 the GDP growth rate reached 13.9%; GDP amounted AMD 2,228,027.5 million, or approximately USD 4,952 million¹⁵.

Data from the CIS illustrate the dynamics of major macroeconomic indicators over the past five years. Armenia has been performing better in comparative terms than the majority of other CIS countries. Only Azerbaijan has registered higher growth in GDP, industrial output and investment in fixed capital, though it has had lower growth in agricultural production, retail turnover and exports.

Table 1: Growth in major macroeconomic indicators for Armenia in 2005 (%)

	GDP*	Industrial output*	Agricultural production**	Investment in fixed capital*	Retail turnover**	Consumer price index	Exports	Imports
2005 as % of 2004	113.9	107.5	111.2	134.0	109.3	100.6	134.0	130.0
2005 as % of 2000	177.0	153.0	155.0	334.0	185.0	118.0	323.0	199.0

Source: Interstate Statistical Committee of CIS

* In constant prices

** All categories of producers (agriculture), or all channels of sales (retail trade)

1.3.2.2 Macroeconomic performance

Armenia's macroeconomic performance has been favourable in recent years. Consumer spending has increased significantly, supported by higher incomes and migrants' transfers. Tight monetary policy has been maintained, keeping annual inflation in single digits since 1997. Fiscal performance also improved, with increased tax revenues and better management of targeted expenditures. The current account deficit narrowed to 4.6% of GDP in 2004, in part as a result of increasing remittances. The external debt situation has continued to improve, and most of the outstanding liabilities are on concessional terms. However, as advised by the IMF, careful management of the sovereign debt capacity should remain a priority for the government, and the authorities will continue to refrain from incurring non-concessional borrowing.

¹¹ Government of the Republic of Armenia, 'Poverty Reduction Strategy Paper Progress report (Aug 2003 – Aug 2004)', Yerevan, Sept 2004, p.7.

¹² idem

¹³ Loukoianova, E. and Unigovskaya, A., 'Analysis of Recent Growth in Transition Economies', IMF Working Paper 04/151, p. 5 and 7.

¹⁴ http://www.armeniadiaspora.com/js_05/050525econ.html.

¹⁵ www.armstat.am

Armenia has made rapid progress in a number of structural reform areas, including price and trade liberalisation and privatisation. The country joined the World Trade Organisation (WTO) in 2003 and maintains a floating exchange rate regime with full currency convertibility. The privatisation process in Armenia is nearing completion, but postprivatisation restructuring and improvement of corporate governance, inter alia through raising accounting standards and protecting minority shareholders, remain top priorities.

While the government has made some progress in the reform of the financial sector, it is still relatively underdeveloped. Bank intermediation is low by CIS standards, and the role of the capital market is marginal. FDI increased in the period 2004–05, partly driven by the renewed interest on the part of the Armenian diaspora in setting up businesses, but other FDI remains relatively low, deterred by the small size of the domestic market, the population's low purchasing power and the country's partial isolation in the region.

According to an IMF Executive Board press release of November 2006, a USD 4.9 million disbursement under the Poverty Reduction Growth Facility (PRGF) was approved¹⁶. The press release states that Armenia's economy continues to perform well under its PRGF-supported programme. Prudent fiscal and monetary policies, large external inflows and ongoing structural reforms have contributed to double-digit growth in a low-inflation environment and to a sustained reduction in poverty and unemployment. There has been impressive progress in the areas of fiscal and financial sector reforms, including through improved tax administration, strengthened prudential regulations and oversight of the financial sector, and improved corporate governance of banks. Looking ahead, the focus of the authorities' policy will be to manage the macroeconomic impact of continued large capital inflows, and to boost tax revenue to finance expenditure increases in infrastructure and social services. The authorities' economic programme for 2006 and 2007 focuses on limiting inflationary pressures, maintaining a flexible exchange rate arrangement, and improving tax revenue performance. The draft 2007 budget is compatible with macroeconomic stability and envisages a significant increase in tax revenues, which will be needed in order to finance priority expenditures in infrastructure and social services.

1.3.2.3 Drivers of growth and macroeconomic stabilisation

There is some debate about the drivers of Armenian growth and stabilisation. Unlike neighbouring Azerbaijan, which has also shown double-digit growth in recent years, Armenia's growth is not backed by rich natural resources and access to efficient transportation routes.

For years strong growth was driven primarily by recovery and was not based on significant changes in enterprises' and investors' behaviour that would be needed as sustainable sources of expansion and job creation. Growth did not contribute to a commensurate reduction of poverty. Only in recent years have income poverty indicators shown significant progress.

There are two main external sources that have supported some of the growth and stabilisation: emigrants' remittances and official development assistance. The World Bank Country Assistance Evaluation (for the period 1993–2002) reports the following statistics. 'Workers' remittances and transfers from the Armenian diaspora averaging around 9% of GDP financed about half of the trade deficit, which is about 20% of GDP. Official development assistance, about 11% of GDP during 1993–2001, helped to finance the current account deficit and to accumulate international reserves that now stand at around 4.3 months of imports. Of that assistance, multilateral institutions lent 6% of GDP, of which IBRD/IDA comprises about half¹⁷.

Much of the country's recent performance is linked with the construction boom, exports and services. During the period 1998–2002 growth appeared to be driven by final consumption, expansion of exports and investment in export-oriented sectors. The changing roles of growth drivers can be seen in Table 2. The leading role of consumption decreased, while the contribution of investment and export increased. Nonetheless foreign investments remained relatively low.

¹⁶ <http://www.imf.org/external/np/sec/pr/2006/pr06263.htm>

¹⁷ World Bank, 'Country Assistance Evaluation', 2004, p. 4.

Table 2: Contribution of expenditure components to real GDP growth, 1998–2002 (% of total)

	Average 1996–97	Average 1998–2000	Average 2001–02
GDP growth	100.0	100.0	100.0
Final consumption	117.4	96.2	48.9
Investment	28.3	15.9	15.2
Net export	-45.7	-12.1	35.9

Source: Loukoianova and Unigovskaya, 2004

During 1998–2001 construction led the growth of output, with 25% of total growth, followed by retail trade, industry and agriculture, with around 20% each. While the recovery of retail trade reflects domestic market conditions, agricultural output and the recovery of the industrial sector have been driven to some extent by the growth in exports of polished diamonds, metals and processed foods.

Import substitution and domestic absorption made the greatest contributed to economic growth in 1994–99, but the period 2000–03 was characterised by a marked increase in the share of exports in economic growth. Exports expanded significantly in the period 2001–03, largely as a result of one key item: polished diamonds. This item accounted for over 50% of exports in 2002, and for 41% in 2004. Polished diamonds contain very high value raw material (88–91% are imported diamonds and precious metals) and low added value. Other items with high shares of exports and steady growth trends are non-precious metals, ores and metals, foodstuffs, textiles and instruments, and devices.

The Central Bank states that unprecedented growth of the country's agriculture was another important peculiarity of 2004. The report points out that the sector accounted for 3.1% of the overall economic growth rate, the service sector 4.3%, and the building industry 2.1%. Simultaneously, industrial production accounted for 0.4% only, down from its 2003 level; this can be linked to structural changes in this sphere¹⁸.

The challenge that Armenia faces is twofold. First, it needs to sustain high growth rates for some years. Second, growth needs to undergo a qualitative change towards a more positive impact on the reduction of poverty and inequality, the recovery of employment and economic activity of the labour force, and improved living standards.

1.3.2.4 Investment in the economy

Armenia's attractiveness for foreign investment has been impaired by the country's isolation from neighbouring markets, the perceived high level of regional instability, and the small size of the domestic market. Recent studies suggest that removal of the current barriers to trade in the region would have a substantial positive impact on exports and overall economic performance.

The ratio of investment to GDP has improved slowly, from 16.2% in 1995, to 20.4% in 2002¹⁹. Investment linked to Armenia's long-term diaspora and recent emigrants represents a significant proportion of total foreign investment.

International Finance Corporation (IFC) investment has been quite limited, mainly as a result of the view that Armenia possesses a lack of suitable investment opportunities. Over the decade 1993–2002 the IFC made two investments, totalling USD 5.9 million. This figure is low compared to the IFC's 11 investments, amounting USD 83 million, in neighbouring Georgia over the same period²⁰.

The EBRD made nine investments over the decade, providing a total of USD 22.7 million in equity and USD 114.2 million in debt. The EBRD regards the transition impact of its efforts as moderate. Although most projects were successful, a number of large projects encountered difficulties²¹ (including the construction of Yerevan Air Cargo Terminal, USD 24.5 million, and Hrasdan Thermal Power Plant, USD 61.8 million).

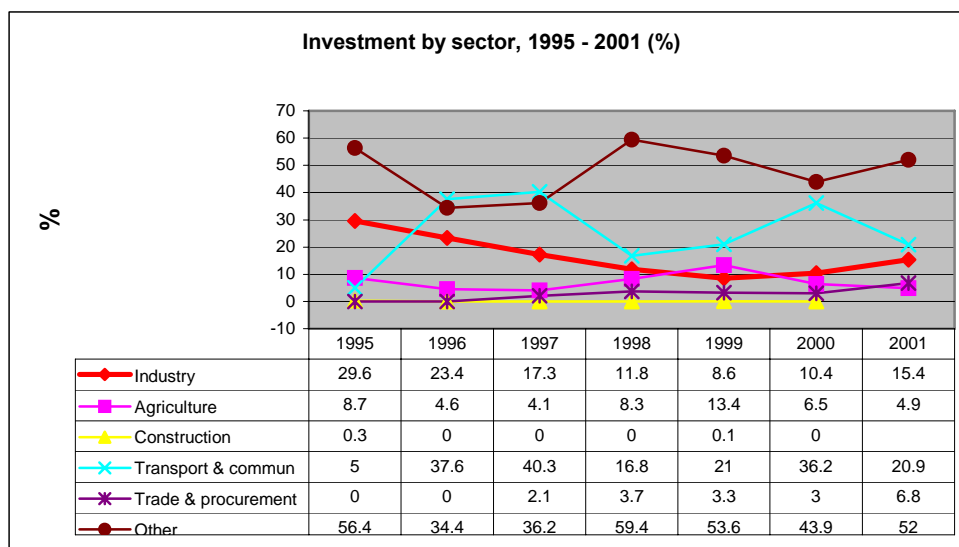
¹⁸ http://www.armeniadiaspora.com/js_05/050525econ.html.

¹⁹ EBRD, 'Transition report 2004'.

²⁰ World Bank, 'Country Assistance Evaluation', 2004, p. 27.

²¹ World Bank, 'Country Assistance Evaluation', 2004, p. 27.

Figure 1: Investment by sector, 1995–2000 (%)



Source: Loukoianova and Unigovskaya, 2004. Graph: ETF

In view of the high growth rate of construction and its contribution to GDP (7% to 10% respectively in 1995 and 2000), the very low share of investment in the branch (Figure 1) is surprising²². Investment in the mixed category ‘Others’ is very high, which justifies a breakdown of the category into clear elements. Available information is insufficient to produce such a breakdown. The decreasing share of investment in agriculture confirms the assumption that higher labour intensity in the sector has been linked to a return to a survival agro-economy rather than to an expansion of new agriculture. As a matter of fact, Armenia was always an economy with a noticeably industrial, rather than agricultural, orientation.

1.3.2.5 Role of remittances

Armenia’s long-term diaspora and the communities of recent migrants contribute significantly to supporting households’ revenues and investment in the economy.

The impact of remittances in Armenian society is significant: according to the official estimate of remittances, inflows were USD 289 million in 2003.

A study of 2004 proposes an alternative estimate of approximately USD 900 million, or around 30% of GDP²³. This study considers remittances from non-emigrant temporary workers and longer-term emigrants, as well as formal and informal transfer channels. The economic effects of remittances are positive for poverty reduction, but also for capital accumulation.

The study concludes that remittances in Armenia reduce poverty and inequality, since for beneficiary households remittances make up 80% of household income on average. Remittances do appear to be going to some of the most vulnerable households. Evidence on the use of remittances suggests that they are mainly allocated to housing, land, education and small business²⁴, as well to expenditure on education that which would otherwise be unattainable. The report suggests that remittances may contribute to keeping the working-age population out of the labour force by decreasing the pressure to accept unattractive jobs.

1.3.3 Demographics

Armenia currently has the smallest population among the three ENP countries in the Southern Caucasus region, with an estimated 3,215,700 in 2004, against 3,753,500 a decade previously (1994). The last census (2001) registered for the first time the impact of the migration that had occurred since the early 1990s²⁵. The census reported a de facto population of 3,002,594, and a de jure population of 3,213,011.

²² See Figure 2 of this report.

²³ ‘Remittances in Armenia: size, impacts, and measures to enhance their contribution to development’, USAID (unpublished), Yerevan, October 2004.

²⁴ Lesser amounts were also allocated to the formal financial sector as savings.

²⁵ This was around 800,000 fewer people than estimated in the year before the census.

The share of male population was 48% of the de jure and 46.9% of the de facto population²⁶. Mobility of the population was high, with around 200,000 moving in and out of the country during a year.

Unfavourable demographic trends are clouding Armenia's economic recovery prospects, according to a recent study²⁷. The large number of victims of the 1988 earthquake and the economic disruption immediately following the collapse of the Soviet Union contributed to changes in Armenia's demographic growth and migration rates.

Demographic trends have been determined by high emigration and declining birth rates, resulting in a clearly ageing population. In 2004, according to official statistics, an estimated 10.6% of the population was over the age of 65. Although the country's emigration rates have declined, the report finds that the damage to the Armenian economy may prove to be long-lasting. In 2000, although the population's natural growth was 10,300 people, the 42,000 people who emigrated from Armenia offset this increase.

Another population study, presented at an Organisation for Security and Cooperation in Europe (OSCE) meeting in late 2004, made a startling forecast: if Armenia's demographic trends continue to follow the existing pattern, the country's population could fall to 2.66 million by 2025. This would represent a decrease of more than 16% from the official population figure of 3.2 million on 1 January 2005. By 2050, the numbers could tumble still further to 2.33 million.

The Poverty Reduction Strategy Paper (PRSP) (2003) pays little attention to demographic problems. The document simply implies that with a reduction in poverty, migration will decrease.

1.3.3.1 Migration

Around a fifth of the population emigrated during the transition period. Researchers have identified three main migration streams in the past 15 years²⁸. The first, which followed the earthquake of 1988, led to the departure of some 200,000 people to other Soviet republics. The next, in the period 1988–1990, was linked with the Nagorno-Karabakh conflict: Armenia received some 500,000 refugees, and at the same time thousands of ethnic Azeri people fled to Azerbaijan. The largest stream was in 1992–94, when the country experienced a tremendous shock linked to the energy crisis and economic collapse. Accordingly to some sources, some 700,000 people emigrated during this period, with a peak in 1993 (250,000). The end of 1990s saw a new resurgence of emigration, fuelled by new turmoil and political instability. Population outflow subsequently stabilised.

According to a recent survey by the OSCE office in Armenia, around 130,000 people are involved in short-term labour migration. This amounts to around 6% of the working-age population. Of these, 90% work in other CIS countries, primarily Russia, and 94% are men. The main occupational branch is construction²⁹.

Although serious studies on Armenia's brain drain are not available, analysts conclude that around 30% of emigrants had college degrees³⁰, while 50% had at least completed secondary and post-secondary education³¹. Many of the migrants were skilled people from urban areas who were active in industry, services and science. Another significant group of emigrants was young people who left on completion of their studies (complete general and tertiary education). The resulting brain drain presents a challenge for socioeconomic development in the years ahead.

1.3.4 Poverty

Poverty in Armenia reached high levels (approximately 55% in 1998), and was accompanied by great inequality in income. The steep falls in output and income, a decline in social transfers, and the inability of large enterprises to pay wages were the key factors underlying the significant increase in poverty. Poverty affected the stock of human capital, in part through economically driven migration of a significant proportion of the working-age population and skilled labour force.

²⁶ State Committee of the organisation and conduction of the RA Census 2001, 'The Results of the census of the Republic of Armenia', 2001, p. 143.

²⁷ 'Social Demographic Challenges of Post-Soviet Armenia', United Nations Population Fund, 2005. Available at <http://www.eurasianet.org/departments/business/articles/eav030705.shtml>

²⁸ Pogossian, G., 'Migration in Armenia', 2000.

²⁹ Presentation by the OSCE Office in Yerevan of the Labour Migration Project at 13th OSCE Economic Forum, Prague, 23–27 May 2005.

³⁰ In the terminology of the source, 'college degree' corresponds to tertiary education.

³¹ Pogossian, G., 'Migration in Armenia', 2000.

Disparities in income between urban and rural areas are substantial. Regions with predominantly rural populations and difficult agricultural conditions have higher levels of poverty. Although poverty declined significantly in rural areas in 2004, and in other cities besides Yerevan, differentials remained high. In urban areas the poverty level declined to 38%, while in rural areas it was 40.7% in 2004. The progress in rural areas is associated with increased income, alleviation of income inequality, and a high rate of consumption of self-produced food in the income structure.

Table 3: Geographic Distribution of Poverty, 1998–99 and 2004 (%)

District (Marz)	1998–99		2004
	Incidence of extreme poverty	Incidence of poverty	Incidence of poverty
Aragatzotn	25.6	57.0	47.8
Ararat	17.1	49.4	36.7
Armavir	13.0	36.7	46.8
Gegharkunik	13.3	43.4	51.6
Lori	34.7	61.7	33.0
Kotayk	30.5	60.3	47.4
Shirak	40.7	77.3	58.0
Syunik	25.9	50.0	34.5
Vayots Dzor	15.6	34.7	38.3
Tavush	13.6	27.6	26.7
Yerevan	29.1	56.6	29.4
Total	25.4	53.7	39.0

Source: World Bank, 'Armenia Poverty Update', 2002; PRSP Progress Report, 2006, IMF No 06/239, June 2006

An analysis of sources of income in 1998 (Table 3) shows the relatively low proportion of income that relates to employment and self-employment (own small business), particularly in rural areas, where farming is the key source of income across all quintiles, but reaches a much higher level among the richest groups. Passive sources (such as remittances from migrant relatives, sales of assets and transfers) represent over half of households' income in the two poorest quintiles in urban areas (1st and 2nd quintile).

In both rural and urban areas the opportunities for self-employment are very limited, especially for poor people. Self-employment provided just 5% of total household income in Armenia, and the majority of this accrued to wealthy people. Households in the poorest quintiles generated less than 2% of their income from their own entrepreneurial activities (UNDP).

The proportion of income from labour earnings (jobs) stood above 50% only among households of the three richest quintiles in urban areas, and around or below 40% in all other quintiles in rural and urban Armenia. Overall, jobs generated only 46% of household income across all quintiles in Armenia. This situation demonstrates the limited role of employment and of related policies in poverty reduction.

Table 4: Household income sources in Armenia by quintiles in 1998–99 (%)

	Quintiles					
	Poorest	2	3	4	Richest	Total
All Households						
Labour earnings	50.3	39.0	47.0	49.0	45.5	46.2
Self-employment	1.4	2.9	4.3	3.2	9.7	5.2
Farm income	12.4	22.1	29.8	27.1	27.6	24.9
Remittances	19.9	16.4	5.8	10.1	7.2	10.7
Transfers	13.3	15.3	11.8	6.9	3.7	8.9
Assets sold	2.7	4.3	1.3	3.7	6.3	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Urban Households						
Labour earnings	44.7	42.0	63.2	53.8	56.9	53.0
Self-employment	2.2	4.0	6.5	4.9	15.6	8.0
Farm income	1.5	2.1	4.2	5.5	2.8	3.2
Remittances	30.8	25.5	7.8	18.5	8.6	16.7
Transfers	16.6	19.6	16.4	10.7	4.6	12.2
Assets sold	4.3	6.8	1.8	6.6	11.5	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rural Households						
Labour earnings	39.0	33.3	31.4	32.6	30.1	32.1
Self-employment	0.1	1.1	1.2	2.2	3.2	2.1
Farm Income	46.3	52.8	58.6	55.1	57.7	55.6
Remittances	3.4	3.4	2.9	4.1	5.9	4.4
Transfers	11.0	9.1	5.3	4.8	2.9	5.3
Assets sold	0.1	0.2	0.6	1.3	0.2	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: World Bank, 'Armenia Poverty Update', June 2002

Employment matters, even if it is more precarious than standard job forms in more developed labour markets. Table 5 shows that having a job does not offer complete protection from poverty, but the relative poverty risk diminishes when the head of household is employed. Poverty reduction policy needs to emphasise multi-layer employment promotion measures, beyond the social relief and consumption-smoothing measures that have only short-term effect and do not attack the roots of multidimensional poverty and vulnerability.

Table 5: Poverty and labour force participation of head of household, 1998–99 (%)

	Incidence of poverty	Relative poverty risk
Salaried workers	44.8	-16.6
Self-employed	44.7	-15.0
Other employment	48.1	-10.3
Seasonally unemployed	39.1	-27.1
Unemployed	65.4	+21.8
No labour market participation	63.8	+18.8

Source: World Bank, 'Armenia Poverty Update', June 2002

The IMF analysis indicates that the rapid reduction of poverty levels in 2004 was a result of growth of labour income and in particular of social transfers, as illustrated in Tables 6 and 7.

Table 6: Structure of household cash income, 1999–2004

Indicators (% of total cash income)	1999	2001	2002	2003	2004
Labour income	35.19	42.33	53.21	55.2	56.5
Social transfers	9.33	9.61	11.53	9.91	13.58
Income from sale of agricultural products	32.11	15.64	6.4	12.69	11.09
Transfers	19.32	18.55	18.7	15.86	12.57
Others, including income from property	4.05	13.87	10.16	6.34	6.26

Source: PRSP Progress Report, 2006, p. 10

It is important to consider the following conclusion of the IMF: the proportion of household cash income deriving from social transfers, in particular the increase in pensions, determined the overall performance in terms of poverty rates in 2004, as illustrated in Table 6. In fact, if social transfers were not taken into account, the poverty rate would remain stagnant and high (49.9%). This is a critical finding, which

highlights the possible risk of an unsustainable decline of poverty if the role and share of gains in income from employment do not grow more substantially in the poverty reduction policy mix in the future.

Table 7: Structure of household cash income, 2003–04

	Poverty level, when social transfers included		Poverty level, when social transfers not included			
			Without social assistance ³²		Without social transfers ³³	
	2003	2004	2003	2004	2003	2004
Non-poor population (%)	57.1	61.0	55.8	58.4	50.1	50.1
Poor population (%)	42.9	39.0	44.2	41.6	49.9	49.9
Of which: very poor (%)	7.4	7.2	9.7	10.1	16.2	18.5

Source: IMF Country Report No 06/239

In 2005 poverty reduction continued to be a top priority for the country. Although the government has made good progress in implementing its PRSP, and the overall poverty ratios have been falling, poverty remains a critical issue, particularly in rural areas and among socially vulnerable groups. In fact much of the progress has benefited the urban population, in particular in Yerevan, while rural poverty has remained high. The earthquake zone has higher poverty levels, as do high mountainous zones, in which agriculture is much less productive.

In 2004 progress in terms of poverty reduction indicators was faster than was anticipated in the PRSP, accordingly to recent NSS surveys. Among the most surprising figures showing unexpected rapid progress was the percentage of Armenians living below the poverty line, which fell from 55% in 1998 to 50% in 2002 and to 42.9% in 2003. Similarly, the number of Armenians who were poorest – those who earn less than AMD 7,742 (around USD 15) per month – also took a surprising plunge, from 13.1% of the population in 2002 to 7.4% in 2003.

At the same time, the survey indicated that the income gap between rich and poor in Armenia narrowed slightly. Several government bodies and analysts challenged these results, considering them to be too optimistic. Some representatives of the NSS themselves have admitted to being caught off guard by the survey's results³⁴. However, the World Bank expressed no objections to acceptance of the survey results.

Despite the growth of social expenditure in the state budget during the first years of PRSP implementation, it was not possible to adhere to the planned proportion of social expenditure, and during 2004 it totalled 8.35% of GDP, instead of the planned 9.3%.

Recent World Bank estimates (2003) show that Armenia is only likely to fulfil one Millennium Development Goal target, that for maternal mortality, and that it is unlikely to achieve three other goals, those for school enrolment, child mortality, and the incidence of HIV/AIDS and tuberculosis³⁵.

1.3.5 International cooperation

Armenia has benefited from considerable support from the donor community. Since joining the World Bank in 1992 the country has been the recipient of substantial Bank assistance, both financial and in the form of analytical and advisory services. During the period 1993–2000, net official development assistance to Armenia averaged around 11% of GDP annually, with the World Bank accounting for a quarter of this.

During 1993–2002 the World Bank committed a total of USD 700 million to 29 projects. With 86% of the evaluated projects considered satisfactory, Armenia has achieved better performance than the Europe and Central Asia region and Bank averages. This performance is also better than all of Armenia's CIS-7 comparators, and the current portfolio shows no projects at risk. The contribution to institutional development, legal reform, and regulatory framework in support of policy and reform has been positive. However, the areas of private sector development and public sector reform require thorough follow-up.

³² Social assistance includes reimbursements against privileges, allowances for children, allowances for single mothers, unemployment allowance, scholarship allowance and family allowance.

³³ Social transfers include the abovementioned social assistance and pensions.

³⁴ Food Security Statistics raised questions about the criteria used to determine who is 'very poor', saying that the food basket used to determine purchasing power was actually more like a 'bread basket'.

³⁵ World Bank, 'Country Assistance Evaluation', 2004, p. 6.

In June 2004, the World Bank adopted its new Country Assistance Strategy (CAS) for Armenia for 2004–08. The CAS was developed in close partnership with the Government of Armenia, and was based on the participatory approach developed under the PRSP. The main priorities envisaged in the CAS are:

- Promoting private sector led economic growth
- Making growth benefit the poor
- Reducing non-income poverty
- Maintaining infrastructure
- Improving the targeting of expenditures for social protection and education

USAID was the largest bilateral donor, with aid averaging around USD 65 million per year (1994–2002). USAID provided assistance in the financial, energy, enterprise, agriculture and housing sectors, and in legislation; it also supported privatisation.

The EBRD's activities in Armenia will focus on developing the local private sector and strengthening the financial sector. The strategy reflects the EBRD's Early Transition Countries Initiative, launched in 2004, which aims to stimulate market activity in the seven lowest-income countries of the EBRD's operations by using a streamlined approach and flexible lending instruments to finance more and smaller projects.

With the help of this initiative, and increased staffing in the Bank's Armenia Resident Office, the EBRD has already significantly expanded its operations in Armenia, signing 12 deals in 2005 for €17 million. For the next two years the EBRD will work to expand small and medium-sized business and micro-enterprise financing, primarily through credit lines to local partner banks, but also directly through the Bank's Direct Lending Facility and Direct Investment Facility as well as through co-financing and risk sharing with local banks under the Bank's Medium Sized Co-financing Facility (MCFF). The EBRD will increase support for local banks by supporting new products such as mortgages. Turn-Around Management and Business Advisory Services, providing management and consultancy support, will likewise be expanded. With regard to infrastructure, the EBRD will support creditworthy renewable energy and energy-efficiency projects, and will consider the commercial financing of private operators in transport, public utilities and transport infrastructure and, in exceptional cases with significant grant co-financing, will pursue sovereign-backed projects.

Since 2002 the Swedish Agency for International Development Cooperation (Sida) has given support to the promotion of basic changes in the organisation and working practices of the Armenian Public Employment Service, laying the foundations for more widespread and deep-seated changes in the future. The cooperation comprised a number of components, namely vocational rehabilitation, statistics and forecasting, vocational training needs analysis, stimulating active service at employment offices, and project management.

1.4 Changes, trends and challenges in the labour market and its functioning

1.4.1 Mixed economic fabric

The Armenian economy has elements of different structures. Alongside a large subsistence economy with low productivity and high levels of self-employment operating mainly informally, a smaller layer of private enterprises has developed in faster growth activities, which has achieved successful transition to the market economy. There also exist a number of enterprises and organisations that are operating at a fraction of their previous capacity, and that have poor prospects for sustainable growth.

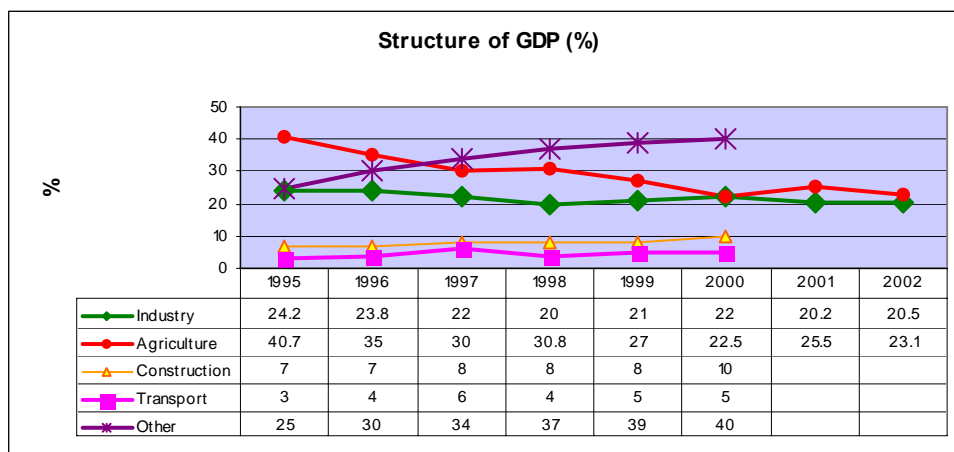
Armenia has a substantial informal economy, accordingly to a recent study³⁶, representing approximately 49% of GDP (2002 – 2003), a higher rate than in the period 1999–2001. The figure for Armenia is the lowest among the three Southern Caucasus countries. Azerbaijan is reported to have reached over 61% and Georgia 68%. According to the same source, other ENP countries have the following rates: Ukraine 54.7%, Russian Federation 48.7%, Moldova 49.4%, and Belarus 50.4%.

1.4.2 GDP and employment by sectors – changing structures in the transition period

The general shrinkage of economic activity and the collapse of industrial enterprises in the years of transition led to significant structural changes in GDP and in employment.

³⁶ Schneider (2005), pp. 18–19. In this study, the shadow economy is defined as the market-based legal production of goods and services that are deliberately concealed from public authorities for a number of reasons: avoidance of taxes and social security, and avoidance of legal labour market standards and certain administrative procedures. It does not cover underground and economic crime activities.

Figure 2: Structure of GDP, 1995–2002 (%)



Source: Loukoianova and Unigovskaya, 2004. Graph: ETF

The structure of the economy changed through a marked reduction of the share of industry in GDP (from 33% in 1990 to 22% in 2003) and a growth in the share of agriculture (from 17% to 24%). However, while industry has tended to recover, albeit slowly, agriculture has continued to lose productivity.

In 2003 agriculture had the highest share of employment (46%) and industry maintained only a 12.5% share; in 1990 these figures were 17.7% and 30.4% respectively. The services sector (including trade and public catering, transport and communications and others) increased its contribution to GDP, from 30.8% in 1990 to 37.6% in 2003.

Agriculture exhibited an unprecedented increase in its share of GDP in the period 1990–95 (reaching more than 40% of GDP in 1995), which subsequently declined. Agriculture became labour intensive, but labour productivity fell³⁷: in 1995 agriculture represented 37.4% of employment and produced 42.3% of GDP, while in 2003 its share of employment reached 46% but it produced only 23.5% of GDP.

This concentration of the labour force in agriculture is partly linked with insufficient job creation in industrial and service enterprises, and inadequate social protection systems that have forced many households into subsistence agriculture. The massive emigration that firstly affected the urban population (the population active in services, industry and scientific work)³⁸ also contributed to this relocation of employment towards agriculture.

The concentration of labour surplus in an output-declining sector such as agriculture³⁹ is evidence of the low productivity of the sector and indirectly contributes, as a reserve of cheap labour, to the slower growth of wages in the industry. Subsistence agriculture is a partial solution to underemployment and results in the low levels of income that cause much of the poverty.

1.4.2.1 Falling employment despite economic growth

Recent economic growth has had a narrow base: manufacturing and services were concentrated in Yerevan, and focused on a few activities (such as polished diamonds). Investment was directed into a few large-scale enterprises whose potential for new employment is limited. Some of the productive and export industries have low job creation potential. Polished diamonds is an example. Newly formed small and medium-sized enterprises have not increased their job creation, while the limited restructuring of the old enterprise sector has contributed to more pressure from the supply side.

Output growth over the past eight years (1998–2005) was not reflected in a corresponding increase in the demand for labour. During 1994–2001 employment fell by around 2–3% per year, reflecting the restructuring that is still taking place in the economy, and the limited growth of new firms.

³⁷ World Bank, 'A Preliminary Assessment of the Armenian Labour Market with a Focus on Youth Employment', Final Report, study carried out by Avag Solutions Ltd, Yerevan, 2004.

³⁸ In comparison with some CIS countries, in 2003 the Armenian economy had a higher proportion of agricultural employment than Azerbaijan, Moldova, Kazakhstan and Uzbekistan, though it was lower than the proportion in Georgia (54.85%), Kyrgyzstan (52.61%) and Tajikistan (46.19%).

³⁹ According to official statistics, employment in agriculture amounted to 509,000 people in 2003, compared to 289,000 in 1990.

At the same time these trends show the large gains in productivity already achieved and the potential for further gains in productivity and employment that could be obtained from faster growth in the formal sector, especially in small and medium-sized enterprises.

Figure 3: Diverging growth of labour and labour productivity, 1971–2000 (%)



Source: Loukoianova and Unigovskaya, 2004. Graph: ETF

Over the period 1994–2003 in Armenia, in conditions of 8.2% average annual economic growth, employment declined by an average of 3.3% annually; in the non-agricultural sectors employment fell by 5.7% annually, in conditions of 8.8% average annual economic growth⁴⁰. Analysis shows that part of the decline in jobs was related to ‘ghost’ or fictitious jobs in stagnant enterprises that widely adopted a policy of maintaining employment levels through salary or time cuts and compulsory periods of leave.

Economic growth in non-agricultural sectors has taken place in conditions of declining employment rates, with the main share of the decline in manufacturing, with 502,900 job losses, or 67.7% of non-agricultural losses. An increase in employment occurred only in the trade sector.

Informal employment grew significantly in urban areas, and this was accompanied by a reduction in formal incomes. No less than 70% of total employment was in small enterprises, agricultural work and self-employment. Informality in labour relations in formal enterprises was common: around 80% of employees in trade and services worked without labour contracts.

1.4.3 Employment and unemployment rates, NSS

Unemployment was officially recognised in 1992 and has shown increasing trends over time. The following figures, provided at the ETF’s request by the NSS in June 2005¹, show some recovery in the activity and employment rates in Armenia for the period 2001–2004. Nevertheless, the unemployment rates were very high.

The unemployment rate fell from 38.9% in 2001 to 32.3% in 2004; the lowest rate in the period was 31.5% in 2003. The employment rate increased from 32.8% in 2001 to 40.5% in 2004, at a regular annual pace. The overall activity rate was 53.6% in 2001, but this rose to 59.9% in 2004.

The 35–49 age groups had the highest employment rates in 2004 (54–56%), but the unemployment rate was not low among these groups (25–27.4%). The older age group (60–64 years) had a relatively high employment rate (40.5% in 2004). The highest unemployment rates were concentrated among the younger groups (15–19, 20–24 and 25–29 years), and ranged from 65.9% to 32.7%. The most consistent high unemployment rate is in the age group 20–24 years (60.1% in 2001 and 55.1% in 2004).

Unemployment data from the State Employment Agency (SEA) differ markedly from these figures, and show a figure ranging from 11.2% in 1999 to 10.4% in 2001, and down to 9.4% in 2002, without further changes up to 2004⁴¹.

⁴⁰ World Bank, ‘A Preliminary Assessment of the Armenian Labour Market with a Focus on Youth Employment’, Final Report, study carried out by Avag Solutions Ltd, Yerevan, 2004.

⁴¹ Total registered unemployed: 118,646 at the end of 2003 and 108,622 at the end of 2004.

The labour market is neither efficient nor effective, as a result of poor, or no, links between employers, job seekers and the education and training system. Unemployment exists alongside vacant jobs, because of skill shortages.

1.4.4 Changes in employment patterns

Employment in formal enterprises is only one part of total employment; informal jobs and precarious, temporary employment are also significant features. This kind of employment flexibility is not, however, supported by any appropriate system of social security and access to employability training to help the active population to cope with transitions between labour market statuses.

The general decrease of economic activity and the collapse of industrial enterprises in the years of transition have led to significant changes in employment patterns. Only a small proportion of the working-age population have permanent jobs in the formal non-public sector. Instead, different types of short-term, seasonal or occasional activities in agriculture and small-scale trade and services outside the formal economy have been typical for the majority of the economically active population in the past decade. High and consistent economic growth has improved the overall employment situation somewhat in recent years. However, employment creation in the formal private sector is still very low.

Three major data sources exist for analysis of the Armenian labour market:

- the Population Census carried out in October 2001 and covering all households in Armenia and Armenian citizens who have worked abroad for less than one year;
- the Labour Force Survey (LFS) carried out biannually (March and September) from 2001 to 2003 and once (August) in 2004, covering 2,000–2,500 households;
- statistics from the SEA on registered unemployment.

These data sources use different methodologies and are all useful for understanding the functioning of the Armenian labour market. The Population Census and the LFS follow the standard ILO methodology, in which labour market status is defined following a sequence of standard questions. In order to be classified as employed, individuals must have worked for at least one hour during a reference week or have had a job from which they were temporarily absent. In theory, the Population Census and the LFS are using a broad definition of employment (including subsistence activities). The question used is 'During the previous week, did you do paid or unpaid work for cash or in-kind payment for at least one hour?' Sometimes a follow-up question is used in an attempt to cover less standard forms of employment.

However, in practice, these studies are unlikely to accurately capture participation in activities that are not considered as employment by the respondent. In particular, difficulties may arise in rural areas and among females. An unemployed person is defined as an individual who is not employed, has been actively searching for a job during the four weeks preceding the interview, and is able to start new employment in the next two weeks.

Both the Population Census and the LFS base their estimates of employment and unemployment on labour market activity in a specific week in a year. This is unlikely to accurately capture the employment patterns of the large proportion of the population who do not have a permanent job. Many individuals are likely to carry out some work sometimes, but not necessary at the time of the survey. As a result, only individuals who carry out some work at the time of the survey will be classified as employed, while those that did not work during that specific week (but may do so during many other weeks) will be classified as unemployed or inactive. In order to gain a better understanding of the labour market dynamics in Armenia, information would be required on the activities of individuals at different points in time. The estimates from the Population Census and the LFS are also sensitive to seasonal labour market effects.

The labour market statistics arising from the different sources are not entirely consistent, and are difficult to assess. For example, in 2001 the employment rate for the working-age population aged 15–64 years was 45.6% according to the Population Census, but only 32.8% according to an average of the two LFSs carried out in March and September. This difference may be a result of several factors, for example the sample design of the LFS, or seasonality, but the main factor is likely to be the difficulty of defining employment, in particular in agriculture. Even if an individual is carrying out some casual work during the reference week, depending on the exact form of the question and the methodology used by the interviewer, the respondent may not always consider this to be employment, and may state this to the interviewer.

According to the LFS, the employment rate increased from 32.8% to 40.5% of the working-age population between 2001 and 2004. This is a very low figure compared with the rates in EU member states, but also compared with other transition economies, including Georgia and Azerbaijan.

Table 8: Activity and employment rates in Azerbaijan and Georgia

		Activity rate	Employment rate
Azerbaijan, LFS 2003 ⁴²		62.9%	56.2%
Georgia			
	2001	66.2%	58.8%
	2002	65.0%	56.8%
	2003	66.0%	58.4%
	2004	64.8%	56.6%

Source: SSC Azerbaijan (LFS 2003); Statistics Georgia, LFS 2001 – 2004 (data prepared at request of ETF)

One hypothesis is that Armenians, to a much greater extent than people in neighbouring countries, are receiving remittances from abroad, and are therefore less willing to accept precarious, low-paid and casual jobs⁴³.

Table 9: Basic labour market indicators 2001–04 according to the LFS, based on the working-age population 15–64 years (%)⁴⁴

Total				
	2001	2002	2003	2004
Activity rate	53.6	55.4	56.5	59.9
Employment rate	32.8	35.5	38.7	40.5
Unemployment rate	38.9	35.9	31.5	32.3

Men, 2004

Activity rate	67.5
Employment rate	49.1
Unemployment rate	27.1

Women, 2004

Activity rate	52.7
Employment rate	31.9
Unemployment rate	38.4

Source: LFSs of the NSS of Armenia

Table 10: Basic labour market indicators according to the Population Census 2001 (%)

	Total	Men	Women
Activity rate	72.1	79.8	65.1
Employment rate	45.6	53.7	38.2
Unemployment rate	36.8	32.7	41.3

Source: Population Census, NSS of Armenia, October 2001

According to the Population Census 2001, 38.7% of employed people were working in agriculture, 47.7% in services and only 13.4% in industry or construction. Employment in agriculture appears to be better captured by the Population Census than by the LFS.

According to the LFS, agriculture's share of employment was only 18.6% in 2001. Over the period 2001–04 agriculture's share of employment increased (or, perhaps, the LFS captured employment in agriculture more accurately). Employment in private services, in particular trade, also increased.

A comparison between 2003 and 2004 is difficult because the survey in 2004 was carried out in August (compared with previous surveys in March and September). The decrease in private services between

⁴² In Azerbaijan only one LFS was carried out (2003), with technical assistance from the ILO and UNDP. A new LFS was planned for 2006.

⁴³ USAID, 'Remittances in Armenia: size, impact, and measures to enhance their contribution to development', Yerevan, 2004.

⁴⁴ The data for 2001–03 represent the average of surveys in March and September. In 2004, the survey was carried out in August.

2003 and 2004 is probably a result of this seasonal effect. A large number of people working in occasional small-scale trade and services are likely to be working in agriculture in August. Employment in public sector services decreased both in terms of its share of total employment and in absolute terms. Industry's share of employment decreased, but the number of people employed in industry remained constant from 2001 to 2004.

Table 11: Share of the employed by economic activity and gender, from LFS⁴⁵

	Total			
	2001	2002	2003	2004
Agriculture	18.6	22.3	24.6	28.9
Industry	17.4	13.3	14.3	14.1
Construction	3.9	5.3	6.2	8.9
Private services	20.5	21.5	24.6	21.3
Public services	39.4	36.5	30.2	26.6
	Men			
	2001	2002	2003	2004
Agriculture	20.4	24.4	26.0	26.5
Industry	22.7	16.0	16.0	17.8
Construction	7.1	9.3	10.6	14.9
Private services	24.4	26.2	28.9	23.5
Public services	25.4	23.3	18.3	17.1
	Women			
	2001	2002	2003	2004
Agriculture	16.5	19.6	22.8	32.4
Industry	11.2	9.8	12.0	8.8
Construction	0.2	0.2	0.4	0.4
Private services	15.9	15.7	18.7	18.2
Public services	56.0	53.3	46.1	39.9

Source: LFS, NSS of Armenia

Table 12: Share of the employed population by economic activity, from the Population Census 2001

	Total	Men	Women
Agriculture	38.7	36.1	41.8
Industry	10.9	14.0	7.1
Construction	2.5	4.2	0.3
Private services	14.5	17.4	11.1
Public services	33.2	28.2	39.4

Source: Population Census, NSS of Armenia, October 2001

However, even if the employment rate is 40 or 50%, a much lower proportion of the working-age population has a 'good' or 'decent' job, that is, a permanent and stable job that offers some future prospects. Thus many people have had to develop lifestyles (and/or survival strategies) with multiple employment statuses, and readily switch between employment and unemployment and between formal and informal activities as opportunities become available. Given the absence of data from studies in which individuals have been interviewed repeatedly at different times, it is difficult to estimate the size of the permanent employed population.

By looking in detail at some questions from the LFS of 2004 it is possible to estimate the proportion of the working-age population that had a 'good' (not precarious) job. Of those who were employed, 41% had a permanent job as an employee with a written agreement. This represented only 17% of the working-age population. A large majority of these jobs were in the public sector. An additional 22% of those employed had a permanent job without a written agreement, primarily as self-employed. The remaining 37% had a temporary or seasonal job.

Thus, a very large proportion of the working-age population did not have a permanent job. Why was that the case, and what were they doing to survive? One obvious answer to the first question is that there

⁴⁵ The data for 2001–03 represent the average of surveys in March and September. In 2004, the survey was carried out in August.

were not enough regular jobs. However, the picture is not so simple, because incomes from regular jobs were not always higher than those from irregular jobs. Many people may not have been able to afford to take a regular job, even if one was available. According to the Household Budget Survey in 2002, incomes for households where the head of household was employed were significantly lower than for households where the head was not employed⁴⁶ (see Table 12). In particular, high incomes were recorded in households where the head of household was involved in short-term migration.

Table 13 also gives some hints on what 'non-employed' people were doing in order to secure income. Remittances were of more importance for non-employed people than for those who were employed, indicating that the availability of remittances might lessen the willingness to take low-paid jobs, even if they are permanent and stable. In addition, the majority of income for non-employed people was from 'other private' sources, which refers to different types of income that are not related to a permanent job. This could be anything from regular small-scale trade and services to occasional opportunities that arise.

Table 13: Incomes of different groups in 2002

	Total household income (AMD)	Wage income %	Remittances %	Agricultural sales %	Other private %	Social transfers %
<i>Yerevan</i>						
Skilled, employed, non-farm	65,431	82.3	4.6	0.0	9.6	3.4
Skilled, non-employed	53,081	38.0	15.4	0.0	41.7	4.8
Unskilled, employed, farm	37,100	53.9	0.0	0.0	17.5	28.6
Unskilled, employed, non-farm	56,650	83.7	2.9	0.0	8.9	4.5
Unskilled, non-employed	45,100	36.5	22.7	0.0	35.7	5.0
<i>Urban</i>						
Skilled, employed, farm	31,014	54.1	0.0	43.8	0.0	2.1
Skilled, employed, non-farm	40,466	78.0	7.4	1.9	8.3	4.4
Skilled, non-employed	43,165	25.9	10.7	0.1	56.3	7.0
Unskilled, employed, farm	23,633	38.9	0.0	44.5	5.5	11.1
Unskilled, employed, non-farm	40,436	80.5	7.4	2.1	4.8	5.2
Unskilled, non-employed	35,809	32.4	32.6	2.6	24.3	8.1
<i>Rural</i>						
Skilled, employed, farm	28,114	21.5	20.5	39.2	11.1	7.6
Skilled, employed, non-farm	41,183	71.4	6.8	9.7	7.7	4.4
Skilled, non-employed	38,722	18.5	30.3	21.9	23.6	5.6
Unskilled, employed, farm	28,362	15.0	13.3	47.5	15.3	9.0
Unskilled, employed, non-farm	33,929	69.7	7.1	7.1	8.4	7.7
Unskilled, non-employed	34,875	19.5	21.9	39.4	9.6	9.5
<i>Migrants</i>						
Yerevan	76,660	27.5	41.5	0.0	28.9	2.2
Urban	79,264	17.7	68.8	3.8	7.5	2.3
Rural	73,555	22.9	61.5	4.6	7.6	3.4

Source: Part of table from Radziwill (2005), GTZ, 'Poverty Social Impact Assessment', Final report, Yerevan, 2005

Note: AMD 50,000 is around €100.

The employment rate for men was significantly higher than for women (49.1% vs. 31.9%), in line with many CIS as well as EU countries.

Large differences existed in the employment rates for groups with different levels of educational attainment. In 2004 the employment rate was 31.8% for individuals with primary education, 35.2% for those with general secondary education, 44.4% for those with vocational secondary education, and 53.0% for people with higher education. Skill levels play a role in the competition for jobs in the formal Armenian labour market. Nevertheless, the employment rate even for highly educated groups is very low.

⁴⁶ Employment in the Household Budget Survey is based on self-reporting and is likely to cover mostly permanent jobs.

Between 2001 and 2004, the employment rate increased significantly for all groups, except for vocational secondary graduates.

The lack of formal job opportunities appears to discourage young people from entering the labour market. In 2004 the activity rate of the 15–24 age group was around 35%. The employment rate for this age group was only 15%. However, between 2001 and 2004 the employment rate increased much faster for the younger age groups than for older workers, in particular for the 25–34 age group.

1.4.4.1 Unemployment

Unemployment is a complex issue to analyse in the Armenian context. Given the difficult overall economic situation and the limited scope of the existing public social safety net, the majority of those without regular jobs need to engage in activities to generate income in order to survive. That is, few can afford to be openly and truly out of a job – unemployed. Nevertheless, according to the LFS, the unemployment rate was as high as 32.3% in 2004. This is a very large number for a transition country with only a limited public social safety net.

In Armenia remittances may play a role as an external safety net for some people. Some 18% of households receive remittances. In these households, remittances account on average for 76% of the total income, and 23% of households that receive remittances have no other source of income⁴⁷.

The unemployment rate decreased more than six percentage points between 2001 and 2004. A larger proportion of women than men were unemployed (38.4% vs. 27.1%).

Unemployment follows an irregular pattern with regard to educational attainment. The unemployment rate was lower for individuals with primary education and those with higher education, but higher for individuals with secondary education, both general and vocational. Individuals with lower levels of education can to a lesser extent afford to wait for a 'good' job, and instead of becoming openly unemployed they are often forced to accept casual jobs. On the other hand, graduates from higher education have a greater chance of finding a job than secondary education and VET graduates, and often compete for the same jobs. A higher education degree might often be needed even for jobs that require fewer skills.

The unemployment rate is especially high for the youngest age groups. In 2004, almost 60% of the labour force between the ages of 15 and 24 years were unemployed. However, the unemployment rate was also significant for older age groups. It was at least 25% for all age groups between 15 and 59 years. Thus, unemployment is not exclusively a problem of labour market entry.

1.4.4.1.1 Registered unemployment

Table 14 summarises data on registered unemployment from the SEA for the period 2000–04. These data show substantial discrepancies in terms of the extent of unemployment as compared with data from the LFS.

⁴⁷ USAID, 'Remittances in Armenia: size, impact, and measures to enhance their contribution to development', Yerevan, 2004.

Table 14: Registered unemployment

	2000		2001		2002		2003		2004	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Total registered unemployed	153,914	99,479	138,379	91,258	127,337	85,670	118,646	81,600	108,622	76,315
Receiving unemployment benefit	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9,901		7,179	
Share of total registered unemployed							8%		7%	
Job placements	10,557		7,927		8,473		7,889		7,893	
First job seekers							22,973		23,852	
Distribution by education										
Higher education	18,433	11,356	17,087	10,757	15,969	9,989	15,359	9,769	14,375	9,124
Vocational secondary education	36,714	23,292	33,933	21,724	31,911	20,559	30,027	19,406	27,709	18,244
General secondary education	88,253	59,173	78,764	53,967	72,330	51,235	66,822	48,888	60,852	45,750
Incomplete vocational education	10,514	5,658	8,595	4,810	7,127	3,887	6,438	3,537	5,686	3,197
Distribution by age										
up to 18	1,162	680	678	434	499	320	180	93	122	64
18–22	11,558	7,380	8,829	5,682	7,643	4,802	6,665	4,317	1,697	1,103
23–30	32,827	20,638	30,290	19,253	27,776	17,172	26,553	16,349	20,162	12,427
30–50	94,598	63,141	85,654	58,045	80,254	56,506	74,175	54,117	72,984	54,643
50 and over	13,769	7,640	12,928	7,844	11,165	6,870	11,073	6,724	13,657	8,078
Total	153,914	99,479	138,379	91,258	127,337	85,670	118,646	81,600	108,622	76,315

Source: SEA

The number of people registered as unemployed with the SES is much lower than the number of those unemployed according to the LFS. At the end of 2004, the total number of people registered as unemployed did not exceed 5% of the working-age population and was less than a quarter of the number of people unemployed according to the LFS. This discrepancy can be explained by the lack of incentives to register as unemployed for many job seekers. Both the services and the potential financial support available from the SES are very limited.

Women represent the large majority of registered unemployed people, with a proportion that increased to reach 70% in 2004. The reluctance of men to register with the SES is partly explained by subjective factors (social stigma), but also by objective ones associated with a perception that the services and benefits of SES might not be worthwhile. Male job seekers would rather use personal links, migrate or embrace informal labour market activities.

Approximately 80% of those registered as unemployed were over 30 years old. This is because unemployed status is given only to individuals with prior working experience⁴⁸. Some 13% of unemployed people had higher education, 25.5% vocational secondary education, 56.0% general secondary education, and only 5.2% primary education. This roughly corresponds with the results from the LFS. Those registered as unemployed were older, and the proportion of females larger, than the picture presented by the LFS, though there are no differences in terms of educational attainment breakdown.

⁴⁸ Law of the Republic of Armenia on the employment of the population adopted on December 1996. In a new draft law on employment this stipulation is changed, and any job seekers applying to the SES can be given unemployed status, regardless of their prior work experience. However, access to unemployment benefits will still be limited to unemployed people with at least one year of experience (in terms of insurance).

1.5 The skills factor in the labour market

1.5.1 Some topics in the current international debate

Current thinking on the role of KSC (Knowledge, Skills and Competences) in an economy with increasing knowledge capital conveys some interesting messages⁴⁹. These are discussed here in order to emphasise that the proliferation of higher education diplomas does not on its own improve either the competitiveness of the economy or the productivity of the labour force, and nor does it guarantee a competitive edge for the economy in the long term. The messages include the following.

- Educational attainment and skill levels are only moderately correlated.
- High skill levels do not seem to affect economic growth, though the existence of a high percentage of people with low skill levels tends to retard growth. Low skill levels seem to inhibit rates of technological adaptation and innovation.
- There should be a policy focus on the people with the lowest skills, as they are holding back economic development.
- People lose skills over time. This is not really surprising given societal, technological and organisational changes, but it happens at a rate that offsets the overall rise in educational quality seen over recent decades. The situation would be even worse if there had been no improvement in the quality of education.

Formal education at any level is no longer sufficient for life. This is one of the corollaries of the above messages.

In January 2006 the annual meeting of the World Economic Forum in Davos gave special attention to the employment and labour force agenda. While it is commonly agreed that growth is a key factor for job creation, it is important to add other ingredients: an enabling environment for enterprise development, the political will to implement employment promotion measures, and significant improvements in training systems to make them responsive to rapidly changing needs for skills.

The skills agenda encompasses several aspects, namely: relevance (the right skills), efficiency (timely), and quality of labour (decent work). Skills are therefore key assets in the life portfolios of individuals.

Job paths are increasingly mobile. Internal mobility (job, career, employer) and external mobility (other countries) are opportunities, but they require strategic and delicate management through both policy and individual choices.

The following selected extracts from the 2006 Davos discussions give particular attention to the need to refresh the role of VET in the challenging employment agenda.

⁴⁹ Johanssen, J., 'Report on participation in Conference EUROSTAT 8-9/12/2005', ETF, 2005.

Vocational training required to filling skills gap

'What we are seeing in the US is the skills gap, where we have workers looking for jobs but also employers looking for workers,' said Elaine L. Chao, Secretary of Labour at the US department of Labour. She outlined a need for increased training in order to serve the number of new industries who are desperately seeking workers.

'The greatest challenge is investment in human capital,' said Elaine L. Chao. 'Eighty percent of new jobs require some understanding of computers.' There is also the problem of older workers. 'Right now there is a gap in government programmes and that is incumbent worker training. So the debate is on the government moving upstream to work with organisations earlier, especially at the vulnerable ages, and whether we should empower workers with training dollars [for useful courses] that they actually want, rather than having to choose from an array of preset topics in a curriculum that may or may not interest them.'

The nature of the globalisation of jobs and its implications for forward planning were highlighted by Professor Jagdish Bhagwati of Columbia University: 'Because people and companies can move around, manpower planning becomes difficult.' Professor Bhagwati also had a message for countries that were resisting the need for labour law reform. 'You have to learn to redo your social protection...if companies can't fire in Germany, they will hire somewhere else,' he said. The participants agreed that the jobs of the future would increasingly come from the vocational sector, with a rise in face-to-face service jobs in particular. The need to convince young people of the value of vocational training was identified as paramount⁵⁰.

David Arkless, Executive Board Member, Manpower, USA, argued that the movement of jobs overseas is not the problem. 'Can we please stop being insecure about off shoring?' he asked. 'The absolute numbers are tiny.' He was more concerned about a future shortage of vocational skills. 'We need electricians, plumbers, infrastructure workers and higher-level production workers. We have to persuade children that in the future getting a vocational degree will be as important as getting an academic qualification. We have to make these sorts of jobs, which make cities work, look valuable and feel valuable'⁵¹.

1.5.2 Education, skills and the labour market in Armenia

The pre-transition education and health systems left legacies of relatively well-educated and healthy societies, and this holds true for Armenia. Education indicators are high, as they are in many other former Soviet states, although enrolment and attendance reflect the effects of the transition.

In Armenia 99.4% of adults and 99.8% of young people are literate.

⁵⁰ www.weforum.org/site/homepublic.nsf/Content/Annual+Meeting+2006#1

⁵¹ www.weforum.org/site/knowledgenavigator.nsf/Content/_S15901?open&event_id=1462&year_id=2006

Table 15: Literacy rates in Armenia

Literacy rates		1990/91	2000–04		2000–04 Regional average
Adults (15+) %	Total	97.5	⁽⁵⁾	99.4	99.2
	M	98.9	⁽⁵⁾	99.7	99.6
	F	96.1	⁽⁵⁾	99.2	98.9
Young people (15–24) %	Total	99.5	⁽⁵⁾	99.8	99.7
	M	99.7	⁽⁵⁾	99.8	99.7
	F	99.4	⁽⁵⁾	99.9	99.7

Source: UNESCO⁵²

As a proxy for the skill mix of the young labour force, the figures for graduates from vocational and higher education per 10,000 population in 1999 and 2003 are used. Both levels of education had a similar number of graduates: 20.5 per 10,000 population in 1999. In 2003 the figures increased to 25 (VET) and 25.5 (higher education). This reveals a situation of relative equilibrium in terms of skill mix in the young labour force, with a balanced presence of entrants with medium and higher professional qualifications. It is useful to compare these with the figures for neighbouring Azerbaijan, where similar indicators show a greater imbalance in the education mix of the young labour force. In 1999 there were 13 secondary VET graduates per 10,000 population, and 19 per 10,000 in 2003; higher education graduates are much more prevalent, with 25 and 35 per 10,000 population in 1999 and 2003 respectively. In the case of Azerbaijan, the young labour force represents a very small proportion of people with medium-level professional qualifications.

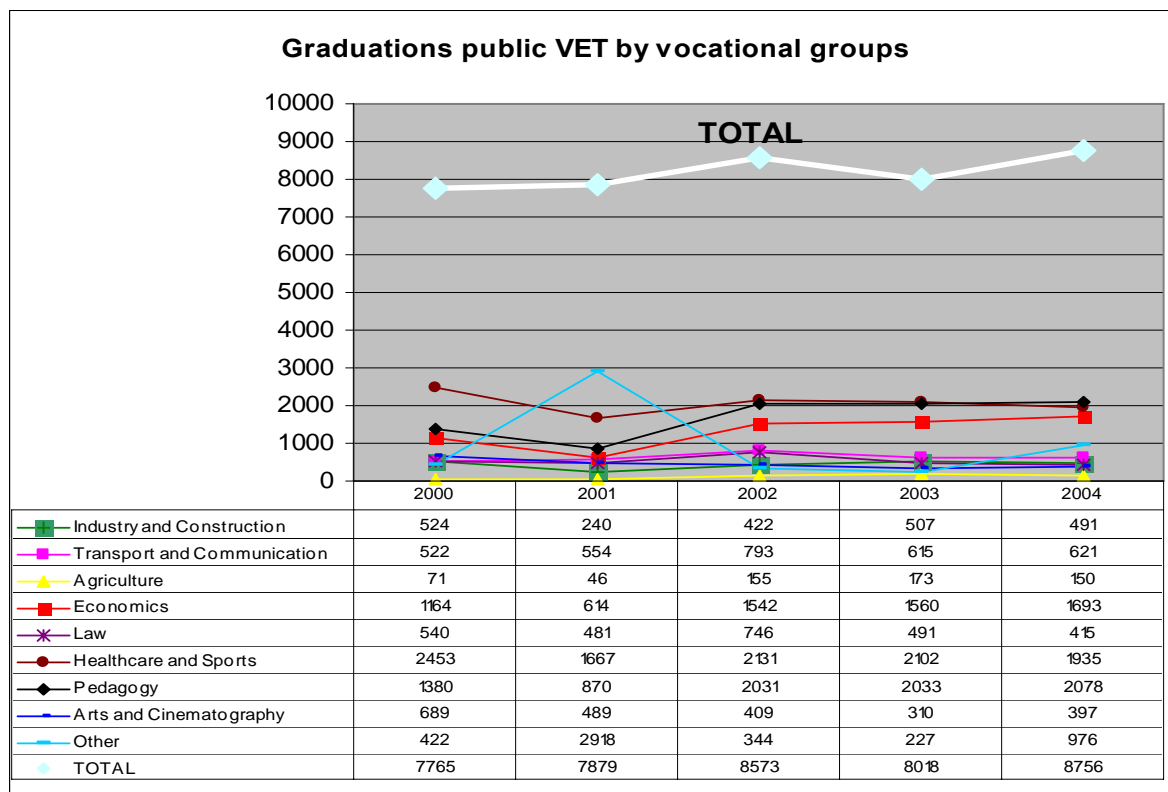
A breakdown of those registered as unemployed shows that more than half had secondary general education, and a minority of only 5% had a lower level of education (incomplete vocational). This shows that in the working-age population, even among those who are likely to be vulnerable in the labour market, relatively high formal educational attainment levels are maintained. Although this average educational attainment is a sound basis for lifelong learning, it does not guarantee adequate professional competence under the requirements of the emerging economy, or even for self-employment in a changing market.

Analysis of trends in graduation from public VET indicate a positive upturn in the past half-decade (Figure 4), following a steep fall during the initial transition phase. Students' preferences in terms of vocational choices can be partly assessed by comparing the behaviour of the various vocational groups in the period indicated, although the persisting system of state regulation of enrolment also influences these figures. Agriculture remains the group with the smallest number of graduations, while the agricultural sector is by far the largest in terms of labour activity/employment (mainly on small/family farms). Pedagogy strengthened its position, and its graduate cohort in 2004 represented approximately a quarter of all VET graduations. The next two largest groups were healthcare and economic studies, each with around 20% of graduates in 2004. Industry and construction, as well as transport and communication, were among the smallest vocational groups in terms of number of graduates.

Consistent tracer studies of the transition from school to work are not carried out, and the follow-up of graduates undertaken by some VET schools has limitations in terms of objectivity and coverage. Despite the ongoing VET reform processes, the system has neither policy nor mechanisms to monitor system outcomes consistently, in particular in relation to the features and trends of the transition of VET graduates into the labour market.

⁵² www.uis.unesco.org/profiles/EN/EDU/countryProfile_en.aspx?code=340

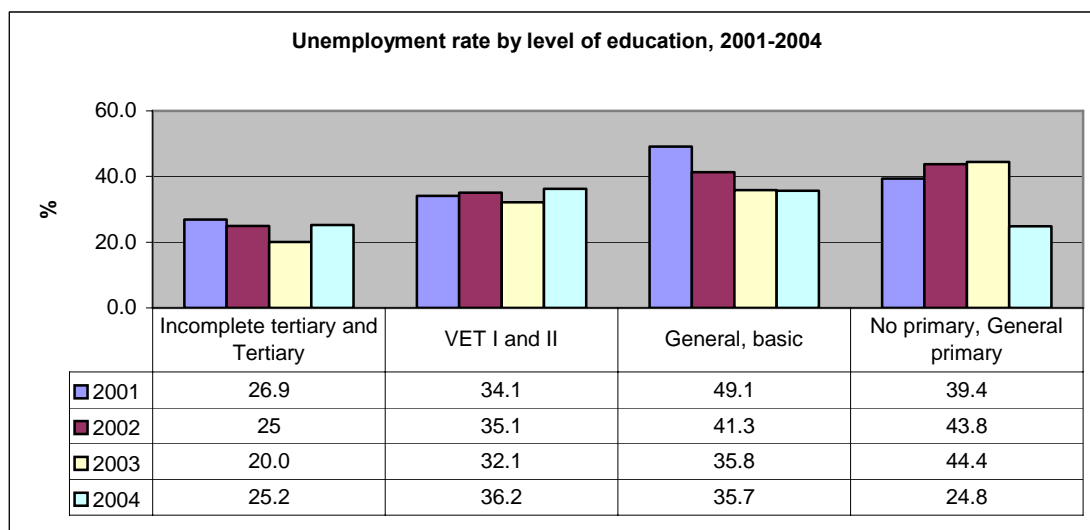
Figure 4: Graduations from public VET by vocational groups, 2000–04



At the request of the ETF the NSS analysed available employment and unemployment rates by education level. The analysis shows that labour market participants holding VET qualifications have consistently higher unemployment rates than those with higher education diplomas. Unemployment rates for VET professionals in the range 32–36% are more or less comparable with those for people with general secondary education, while holders of higher education diplomas have rates approximately in the range 20–25%.

It is remarkable that unemployment rates of those with higher skills increased in 2004 (tertiary and VET), while rates for those with lower skills showed a reduction. However, conclusions about these changes require more consistent observation over a longer period, taking into account the remarks on LFS data in section 3.2.4.

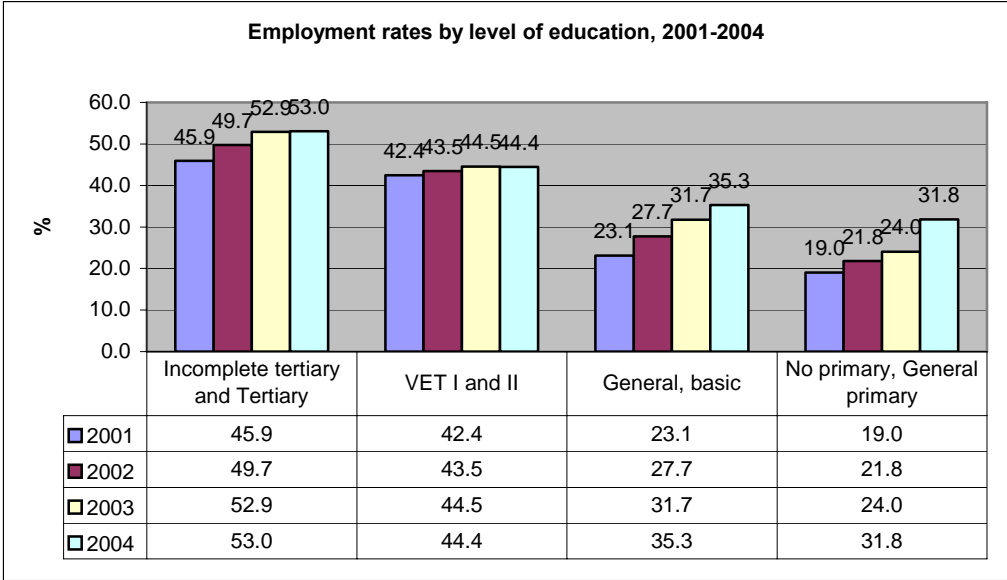
Figure 5: Unemployment rate by level of education, based on LFS, 2001–04



Source: NSS. Graph: ETF

Employment rates for all levels of education increased in the period 2001–04 (Figure 6). Employment rates for participants with higher education were clearly higher, and rising (rates increased from 46% to 53% in the period 2001–04), while employment rates of participants with VET qualifications were constant at around 44%. Although lower levels of education show some growth in terms of employment, they remained rather low at less than 35%.

Figure 6: Employment rates by level of education, based on LFS, 2001–04



Source: NSS. Graph: ETF

Why are those who are less educated worse off in terms of employment? Is this a consequence of changes in the job mix, i.e., with fewer jobs requiring lower- and medium-level skills, and a growing number of high-profile and high-technology jobs? Analysis of the economy and enterprise development does not lead to such a conclusion for Armenia. This question is important and has policy implications.

One explanation for why groups who are less educated have lower employment rates is clearly job queuing. Those with higher skills compete with less skilled individuals for low-skilled jobs. In Armenia holders of higher education qualifications compete for jobs that require lower levels of qualification. There is evidence that this characteristic of job queuing creates disincentives for young people to enrol in VET.

Lower levels of educational attainment (below higher education) are seen as indicators of lower capability, and many employers give preference to university graduates. Additional explanations include the possibility that people with higher levels of education may have more efficient job-search techniques and better labour market information, and may offer a more appropriate skill mix for modern organisations and jobs (including such skills as ICT and foreign languages).

Large-scale economically driven emigration, initially of urban residents active in industry and services, has been a major factor in the overall fall in Armenia’s population since the collapse of the Soviet Union in 1991. It has also affected the structure of employment (increase of employment in agriculture), but more so the skill resources of the Armenian labour force (brain drain).

Highly skilled professionals represent a large proportion (34%) of those who are registered as unemployed, against 20% for individuals without professional qualifications. In the first group, engineers of various types (including programmers) represent the largest category (15%), followed by technicians, teachers, accountants and nurses.

In terms of requests from employers, the SES predominantly receives jobs for skilled workers and skilled professionals. However, the persistence of a large proportion of long-term unemployment (more than 80% have been unemployed for over one year) shows that there is a serious mismatch between employers’ requirements (and conditions/wages) and job seekers’ skills (and expectations/wages).

Many skilled professionals lack the core skills (ITC, English, communication) required by employers on top of the main professional qualification; this gap is recognised by all sides as a serious barrier to relevant employment. There is high demand for accountants and bookkeepers, but employers tend to require a mix of competences that are acquired mainly outside the education programme (ITC, business English, international standards).

Given the current higher job competitiveness of those who have tertiary education, policy measures aimed at supporting employment for those who have lower qualifications are likely to be ineffective, without the creation of appropriate jobs.

Human resources management policy at government and employer level sustains this inappropriate allocation of the labour force with various skill levels to jobs. The medium-term costs of this practice may have an impact on the adequacy of the aggregate skill mix.

1.6 Evaluation of policies and legislative framework designed to address labour market challenges

1.6.1 Challenges

The Armenian economy is recovering from a major contraction and ‘de-structuring’. Double-digit GDP growth rates have been recorded during the past five years. However, employment has not so far been growing at the same pace. Furthermore, the jobs that have been created have to a large extent been within agriculture and small-scale businesses and services. The formal labour market employs less than 20% of the working-age population.

The major challenges in the Armenian labour market are:

- to facilitate the conditions for the creation of more and better jobs;
- to improve the quality and quantity of, and access to, labour market information and intermediation;
- to mitigate a further depletion of skills from brain drain and to promote the better use of existing skills;
- to adapt labour market, tax and social policy to the realities of the labour market, i.e. take into consideration that a large majority of the working-age population does not have a permanent regular job, or is active in agricultural activities;
- in particular, to target supply-side measures to reach the individuals that will need them most.

1.6.2 Policy framework and key institutions

The Ministry of Labour and Social Issues (MoLSI) is the executive body that develops and implements state policy on social security, as expressed in the ministry’s mission statement⁵³. The MoLSI underwent several reorganisations in the years of transition, and its current structure and designation dates from the end of 2003. Key tasks of the MoLSI include the following, as stated in its charter.

‘7. The aims and objectives of the ministry are:

- a) Development of main and prioritized directions of the state policy in the spheres of social security and their further implementation.
- b) Development of state regulation on labour and its further implementation.
- c) Development of employment policy for the population and its further implementation.
- d) Development of mandatory state social insurance policy and its further implementation.
- e) Development of common principles and organization of their implementation based on introduction of social security cards.
- f) Development of policy on state pension security, mandatory and optional pension insurance and their further implementation.
- g) Development of social assistance policy and its further implementation.
- h) Development of social security policy on disabled and old people and its further implementation.
- i) Development of social security policy on family, women and children and its further implementation.
- j) Development of targeted state programs in social sphere and coordination of their implementation.
- k) Partnership with international organisations.’

The State Labour Inspection of the MoLSI (hereinafter Inspection) is an executive authority within the composition of the ministry that addresses:

- ‘Provision of the state control over the application of the RA Labour legislation and other legal acts with labour components.
- Provision of the state control over the requirements of the legislation towards application of social security cards to pay the salaries and other profits equivalent to it by employers.

⁵³ www.mss.am/eng/about/charter.htm

- Provision of the control over the implementation of the RA legislation towards defence of the rights and legal interests of the employees during the privatisation of their organisations.
- Undertaking of necessary measures to regain the rights of employees in cases of non-fulfilment or unduly fulfilment of assignments taken by collective agreements.
- Provision of the control over the keeping of the labour conditions and norms in workplaces and/or by employers, as well as undertaking of measures to take the collective and personal responsibility during the labour process.
- Analysis on the violations of the Labour legislation and submission of recommendations to further eliminate these drawbacks.'

The new Employment Law was adopted in 2006, replacing the law of 1996. The new Labour Code was adopted in 2005.

In the PRSP governing the economic and social policy of Armenia in the period 2003–06, the main focus is on three central tenets:

- sustaining an equitable economic growth, driven by a more dynamic private sector;
- public administration reform and anti-corruption programme;
- enhancing human development.

The PRSP emphasises the need for job creation through private sector development, improvement of the trade regime and flexible labour markets. However, employment is not a central theme and the link between employment and poverty reduction is not directly made. In the chapter on social protection, one section deals with employment programmes in a narrow sense. These include unemployment benefits, support for job-search activities, retraining unemployed people, and active labour market programmes.

The PRSP recognises a number of problematic issues, although specific measures to tackle them are generally not proposed. Among these issues, the following can be highlighted:

- the problematic link with a growing level of informal employment;
- the poor impact of the labour market regulation system on the economic activity of the population;
- income from employment and self-employment in relation to the reduction of poverty and inequality;
- expansion of employment must be accompanied by measures targeted towards reducing unemployment;
- reform of the VET system is a key factor in helping to reduce structural unemployment.

Informal employment has been through several phases of expansion during the transition period. Although the PRSP recognises the weight of informal employment, it does not analyse the immediate and prospective impact of informality on the overall market restructuring and on the possible refocusing of employment policies.

1.6.2.1 State Employment Agency (SEA)

The SEA is an autonomous subdivision of the MoLSI with 51 regional branches. It deals with issues relating to job-seeking citizens by offering them the services listed below, according to the new Law on Employment (2006).

'Is entitled to:

- Anticipate trends and changes in employment, vacancies, dismissals
- Match job seekers with vacancies
- Use resources allocated for annual state employment programmes
- Verify documents of beneficiaries, applicants

Is responsible for:

- Carry out surveys, forecast demand and supply of workforce, inform
- Make recommendations on directions and content of vocational training
- Carry out programmes targeted at regulations of internal and external mobility of workforce, assist job seekers to choose a suitable job, and provide employers with suitable trained workforce
- Inform on vacancies
- Register job seekers
- Award status of unemployed and grant unemployment benefit; suspend the status, write-off the records; suspend the benefit

- Resume the status of unemployment and the benefit
- Develop annual state employment programmes and ensure their implementation
- Carry out counselling for vocational guidance of job seekers
- Organisation of vocational training of unemployed, job rehabilitations
- Carry out salary compensation programmes, public works, financial compensation for business start-ups
- Report on use of funds for employment policy measures.'

In Armenia, as in other CIS countries, employment services have for years been concerned with the registration of unemployed individuals and the payment of various benefits, and control and inspection were key objectives. State employment services have typically waited for unemployed people and employers to come to them.

Since 1998 Armenia has developed and implemented programmes in support of employment, and the protection of registered unemployed individuals and vulnerable members of the labour force, using both passive and active measures⁵⁴. Passive employment programmes have included unemployed benefits and other monetary assistance. Active measures have consisted of vocational training for unemployed people, financial assistance for unemployed people to establish their own businesses/self-employment, the organisation of paid public works, the establishment of specialist workshops for disabled people, employment for disabled people, the organisation of their vocational training, and support for the reinsertion of civil servants affected by public services restructuring policy.

According to the new Law on Employment (2006), the key principles of the state employment policy are as follows:

- "1) Voluntary and free choice of job and occupation
- 2) Ensuring employment for individuals regardless of their nationality, race, gender, age, language, religion, political and other attitudes and approaches, social origin, property and other conditions
- 3) Commitment of the state to create conditions for individuals to realize their right of employment
- 4) Guidance of vocational training system in compliance with the requirements of the labour market
- 5) Ensuring internal and external free move (mobility) of the workforce
- 6) Social partnership
- 7) Social protection of the population in case of unemployment."

Table 16: Summary of employment policy measures, according to the new Law on Employment (2006)

Programmes	Active Programmes	Passive Programmes
<p>Mandatory social insurance for cases of unemployment</p> <p><i>Funded by the national fund of mandatory social insurance</i></p>	<ul style="list-style-type: none"> - Vocational training for unemployed and disabled people (at least one year's job tenure and social contributions) - Job rehabilitation for disabled people (at least one year's job tenure and social contributions) - Compensation of costs linked with job mobility (geographic) - Labour market surveys/forecasts - Funeral costs 	<ul style="list-style-type: none"> - Payment of unemployment benefit - Early retirement (individuals with 35 years' job tenure and with only 1 year to go before retirement age)
<p>Employment promotion programmes (for unemployed people)</p> <p><i>Funded by the state budget</i></p>	<ul style="list-style-type: none"> - Vocational training, and for disabled people also rehabilitation skills and job training – including for those with no insurance, or less than one year's insurance - Financial support for state registration of entrepreneurial activities - Partial salary compensation to employers for job promotion – for disadvantaged unemployed individuals (long-term, young, disabled, demobilised soldiers, persons released from prison) - Participation in paid public works 	

Source: Law on Employment RA, 2006

⁵⁴ <http://www.mss.am/eng/about/message.htm>

Social protection in the case of unemployment is implemented through social insurance and social assistance. A minimum of one year's social insurance contributions is required to apply for unemployment benefit, which is paid at a rate of 60% of the minimum wage. Beneficiaries of pensions cannot receive unemployment benefit⁵⁵. The minimum and maximum durations for payment of individual unemployment benefit are respectively 6 and 12 months.

Another right is re- or upskilling for those who are registered as unemployed, through training organised by the SEA in enterprises and training organisations. Beneficiaries of training programmes receive a scholarship (120% of the unemployment benefit, or 50% of the minimum wage for those not entitled to unemployment benefit) covering the whole training period.

Unemployment benefits are paid to a very limited proportion of those registered as unemployed (Table 13), a fact that underlines the narrow reach of the SEA's services, in terms of the percentage of targeted people reached. In 2004 less than 7,200 registered unemployed people (7%) received unemployment benefit.

Another of the SEA's tasks, labour market intermediation and job placement, achieves the best outcomes where the economy is vibrant and job creation significant. It is otherwise ineffective, since the activation instruments, information-sharing mechanisms and available resources are unable to make a substantial impact on stagnant socioeconomic conditions and regions.

The main public works programmes comprise: 'Food for work', 'Benefit for work' and 'Food for training'. Up to 1996, within the framework of 'Food for work' of the World Food Programme, public works activities involved around 50,000 unemployed people. Since 2001 the 'Benefit for work' programme has been implemented with annual funding of AMD 500 million from the state budget in 2001, 2002 and 2003. Although public works programmes suffer from similar limitations in terms of sustainable employment and income as in other contexts, in Armenia there is evidence of the positive impact of these programmes on the reduction of poverty. Furthermore, according to recent studies candidates for public works in less developed regions exceed available places. There have been complaints from needy families that the allocation of candidates to available public works is not always transparent.

1.6.2.1.1 Employment training funded by SEA

Employment training has been used for some years as one of the employment promotion/activation measures supported by the SEA. The SEA has financed these measures from domestic state resources (state budget and national fund of social insurance), or from specific allocations from various donors. For the duration of the training, unemployed individuals are granted scholarships of up to 120% of basic unemployment benefit. Vocational courses are organised to respond to specific employers' requests, or based on an analysis of labour market demand. In the former case job placement should be granted upon completion of training.

For training programmes costing less than AMD 1 million (USD 2,200), the SEA directly contracts various training providers, based on their availability and capacity⁵⁶. In 2003 seven providers were involved in the programme, the same number as in the following year. In 2003 and 2004 the SEA organised several training programmes within enterprises. This represents an opportunity to diversify training methods and rely on more practical approaches.

During the period 1997–2002 more than 3,000 unemployed people benefited from SEA training; in 2001, 150 of these were disabled people. In 2003 and 2004 around 1,000 persons were trained, out of a total registered unemployed population in the range of approximately 109,000 in 2004 alone.

In 2003 the SEA focused its training programme on the following professional areas: diamond polishing, sewing, carpet making, repair and maintenance of electrical equipment, and computer skills. In 2004 the list of occupational areas included clerks (sales in shops), and some of the aforementioned profiles. Training for unemployed people funded by donors covers somewhat different areas, namely tourist guides, electricians, cooks, business management and business start-ups.

The 'Regional cooperation and stability on food security in the South Caucasus' project organised vocational training for more than 2,000 unemployed people in the provinces of Syunik, Tashir and Tavush. Another related project, 'Provision of self-support measures', assisted unemployed women to acquire skills for business start-ups.

⁵⁵ Except in the case of a pension for the loss of the head of household.

⁵⁶ Larger contracts require a tendering process.

Training for unemployed people has had mixed success in terms of employability, although some official data report job placement rates of 75% of the beneficiaries.

In 2003 and 2004 women represented around 70% of those registered as unemployed, and were the great majority of the beneficiaries of training programmes (approximately 84%).

1.6.3 Social protection

A new Law on State Benefits, adopted in 2005, sets out the main tenets of the social protection system in Armenia.

The system of social protection has undergone reforms and shows some positive shifts; it is important as an instrument for poverty reduction in the current phase of the country's development. These positive shifts include:

- structural reforms;
- the creation of new structures;
- the adoption of new legal instruments for the regulation of sector programmes on training and retraining of social workers;
- more coordinated cooperation with international organisations;
- the relative automation of the management system for the social sector.

However, recent studies have revealed a number of problems:

- the persistence of non-transparent management and cases of pressure on needy groups;
- insufficient coverage and poor targeting that excludes many needy individuals, while people who are not needy become beneficiaries;
- insufficient public information on the various social security benefits and their respective conditions;
- persisting duplications of functions;
- various other inefficiencies.

The system of social protection in Armenia includes several benefits, of which the most important in terms of coverage are:

- family benefit;
- benefits for highly vulnerable groups, including disabled people, orphans, refugees and homeless people;
- pensions.

At present the key priorities for the reform of the system include:

- enhanced targeting in the family benefit system;
- targeted and high-quality social services for particularly vulnerable groups of the population;
- enhancement of the efficiency and transparency of the system of social insurance;
- implementation of insurance in the case of unemployment;
- pensions:
 - an increase in pensions;
 - better differentiation of pensions depending on the length of service;
 - introduction of a system of individual registration;
 - ensuring transition to a pension system based on the amount of insurance payments previously made.

During the period 2003–05 actual expenditure on social protection and social insurance increased substantially, and slightly exceeded the forecasts of the PRSP. Total consolidated budget expenditure in the social sphere reached AMD 112.9 billion, which corresponds to 5.35% of GDP and 23.1% of total

budget expenditure, and which amounts to a 32.2% annual growth. The share of the State Social Insurance Fund increased to 58%.

Expenditure on family benefits increased significantly in 2004, in line with PRSP predictions, to AMD 16.1 million (18.2% of public spending in the sector, or 0.9% of GDP). The government aims to increase the efficiency of the system and to introduce a differentiating mechanism in the benefits provided to families with many children, who are more vulnerable to poverty. As a result of the reforms, the average amount of benefit increased by 26% in 2004, and by 25.5% in 2005, while the number of beneficiary families was maintained.

The UNDP recommends enhancing the effectiveness of the system of family benefits using human poverty indicators, and differentiating families with equal scores through indicators reflecting unequal opportunities to escape from poverty.

The pension system has also benefited from reforms aimed at improving its efficiency and viability. In 2004 expenditure on pensions increased by 20% and reached approximately AMD 51 billion (3% of GDP), of which AMD 47.9 billion was dedicated to labour pensions, and the rest to social pensions.

The current introduction of a personalised individual registration pension system will enhance transparency for the system and for individuals, and will improve the reliability of data.

In terms of challenges for the pension system it is worth highlighting the legislative regulation for voluntary participation in the pension insurance system for people employed on rural farms.

THE VOCATIONAL EDUCATION AND TRAINING (VET) SYSTEM DURING THE YEARS OF TRANSITION

1.7 Trends in the education system in Armenia

With regard to terminology, this report uses 'primary VET' to refer to the Armenian title of 'craft professional' (preliminary professional) and 'secondary VET' to refer to 'middle professional education'.

Armenia is very proud of its tradition of university education and scientific and technological research. The country had a developed education system that provided qualified workers and technicians, and developed new products and technologies for industry.

The Law on Education defines the following education programmes that are currently offered in Armenia:

- i) general education programmes (basic and supplementary);
- ii) professional education programmes (basic and supplementary).

In Armenia, higher education, although mostly of an academic nature, is also called 'professional'.

Table 17: Pathways in secondary, non-tertiary education

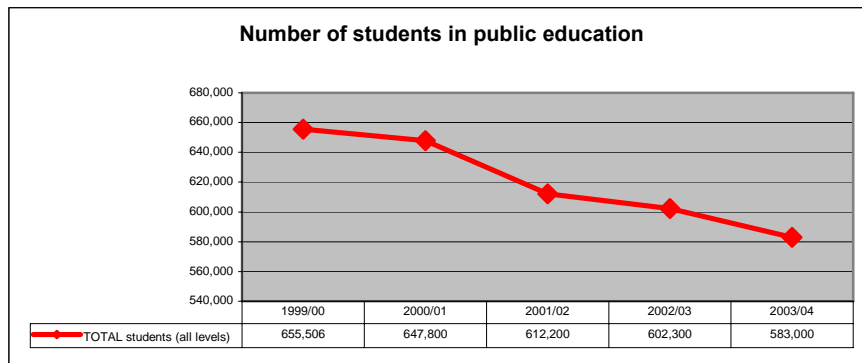
	Level of education	Duration	Outcome
Basic level	Compulsory education	Was: 8 years Now: for pupils entered in 2001, 9 years	Certificate of basic education
Further paths:			
Option 1	Secondary general	2 years (total schooling: was 10, now 11 years)	Matura
Option 2 Access: from basic and from secondary education	Craft college/enterprise training centre	3 years (after basic) or 1 year (after secondary)	Diploma of preliminary VET (qualification: craftsperson) or Diploma preliminary VET (craftsperson) and Matura
Option 3 Access: from basic and from secondary education	College	3 years (after basic) or 1 year (after secondary)	Diploma of preliminary VET (qualification: craftsperson) or Diploma preliminary VET (craftsperson) and Matura
		4/5 years	Diploma of secondary VET (qualification: junior specialist) or Diploma of secondary VET (junior specialist) and Matura
Further paths: Higher education			

Access to higher education is similar for all pathways for which a Matura diploma is awarded, irrespective of the number of years of schooling. Students of colleges (VET) must study for at least one more year than students of secondary general education in order to obtain a Matura diploma.

Indicators of education currently show two contradictory trends: while the number of users (pupils) of general and vocational education is falling, in parallel the number of students in higher education is steadily increasing.

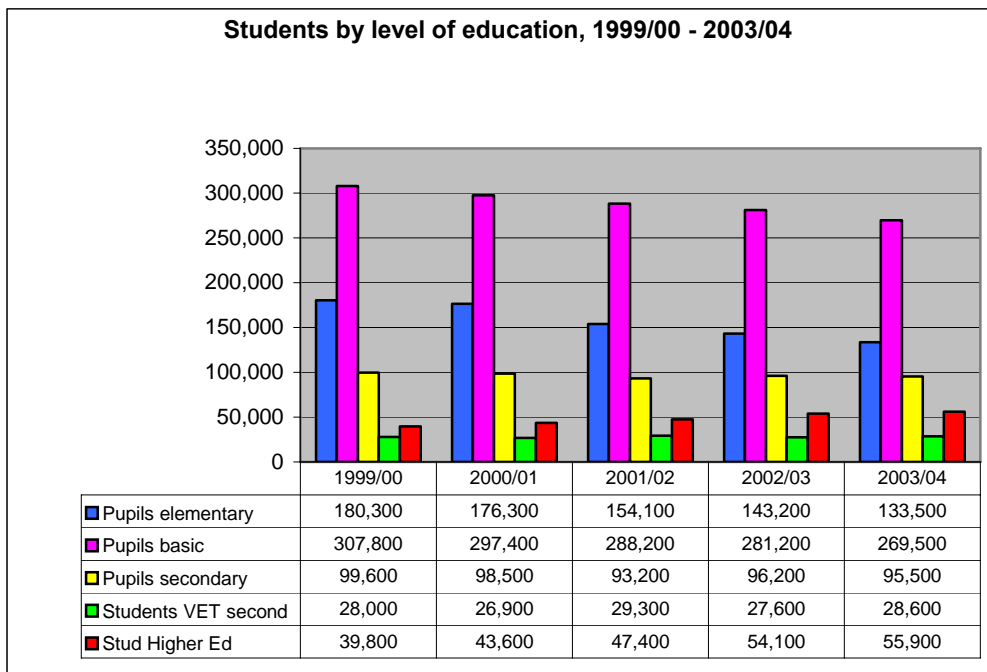
There has been a tendency for a progressive reduction in the total number of students, particularly at all younger levels of the system (elementary, basic and secondary general education) in recent years (Figures 7 and 8). This trend is partly linked with the negative growth rate of the population in Armenia, which is caused by a high net level of emigration and falling natural birth rates.

Figure 7: Falling number of students in public education, academic years 1999/00–2003/04



Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter. Graph: ETF

Figure 8: Number of students in public education by levels of education, 1999/00–2003/04



Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter. Graph: ETF

In 1999 the duration of compulsory education was increased by one year (to nine years) for pupils starting school in 2001. Pupils who obtain the certificate of basic general education have the right to enter secondary general or to opt for vocational education.

As in other CIS countries, the large majority of pupils opt for the secondary general education pathway. According to official data only 3% of pupils opted for VET pathways (public and private) following basic education in both 2003/04 and 2004/05. Less than a quarter of students enrolled in VET pathways following secondary general education (22.5% in 2003/04 and 21.2% in 2004/05).

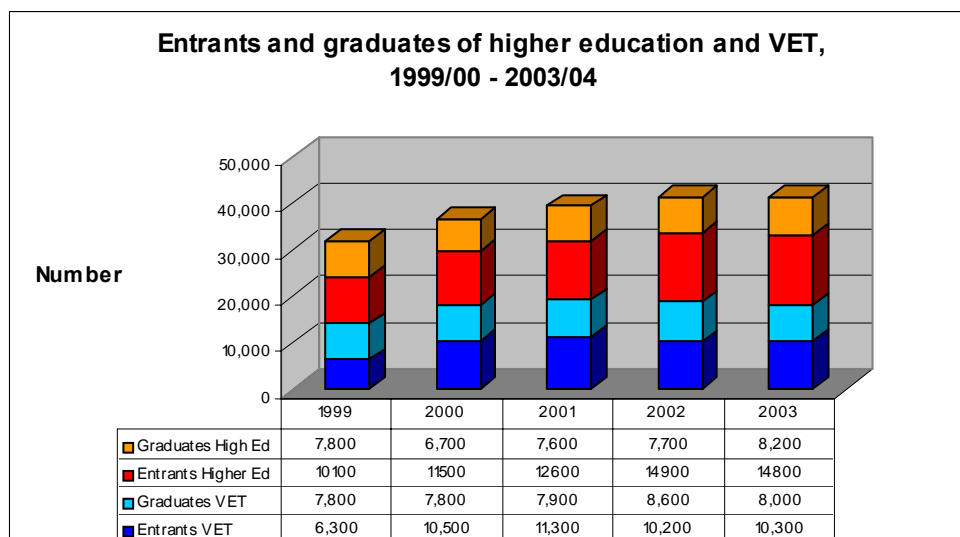
Higher education is the only sub-sector of education that has registered a clear growth in the number of entrants, students and graduates, though admissions to VET have shown a slight increase (Figure 8). The number of higher education students per 10,000 population increased by more than 60% in the short period from 1999/00 to 2003/04.

Table 18: Number of higher education students per 10,000 population, 1999/00–2003/04

	1999/00	2000/01	2001/02	2002/03	2003/04
Higher education students per 10,000 population	104.6	114.7	124.7	168.3	174.0

Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter.

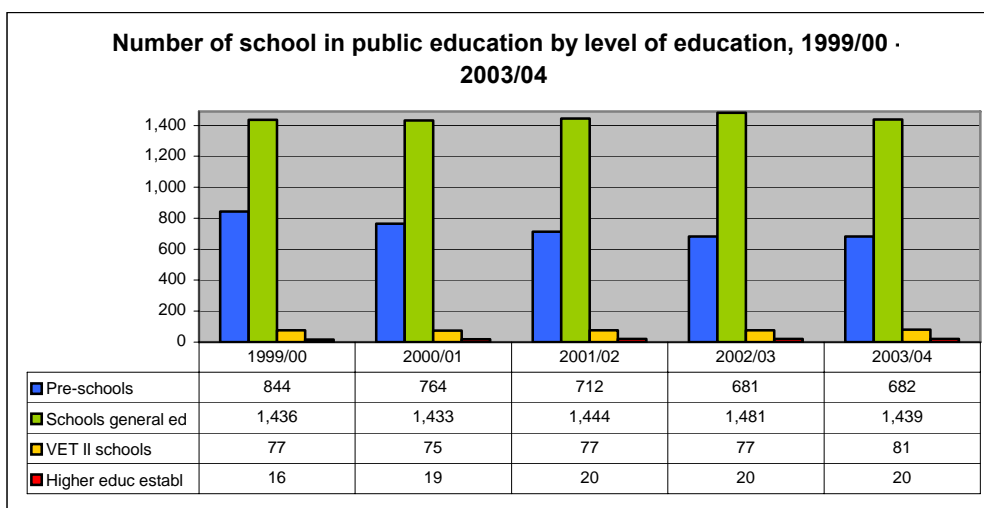
Figure 9: Entrants and graduates of higher education and VET, 1999/00–2003/04



Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter. Graph: ETF

The number of schools for younger population groups has tended to decrease, while in VET and higher education a small increase has been registered (Figure 10). In 2005–06 the number of secondary VET schools increased to 83, data of the figure 10 ends in 2003/2004.

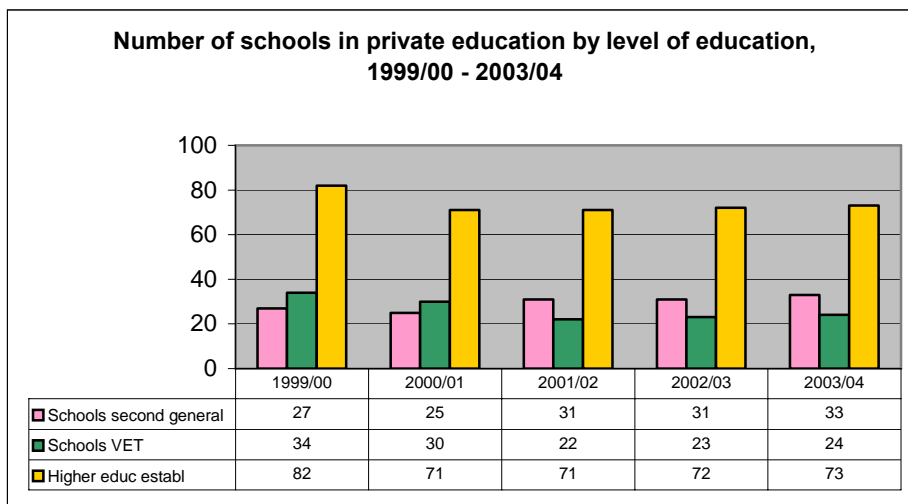
Figure 10: Number of schools in public education by level of education, 1999/00–2003/04



Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter. Graph: ETF

Private education emerged during the transition period. If the number of private higher education establishments reflected market demand, this could be considered a particularly dynamic market.

Figure 11: Number of schools in private education by level of education, 1999/00–2003/04



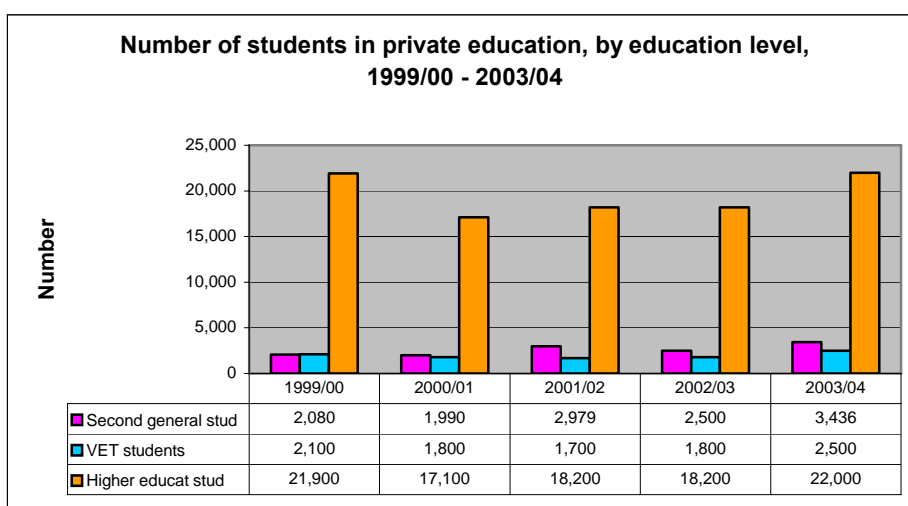
Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter. Graph: ETF

The number of users of private education has increased, particularly at secondary general and tertiary levels. The growth the popularity of this option can be explained by a perception of higher quality and relative ease of access.

Private secondary schools tend to be praised for the higher quality of their teaching and their links to international programmes, which are factors that could offset the higher cost of schooling. Some parents state that taking into account all the numerous informal payments and various contributions required in public schools, the real cost of schooling is not much less than the higher tuition fees payable in private schools.

Access to private universities does not require an entrance examination; it does not exempt male students from military service. Students of private universities currently represent approximately a third of the total number of students at this education level in Armenia. There are almost four times as many private universities than public ones, with private universities typically being smaller than their public counterparts.

Figure 12: Number of students in private education, by education level, 1999/00–2003/04



Source: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter. Graph: ETF

1.7.1 Some aspects of transition in the education system

The rapid changes associated with transition presented the education system with daunting challenges from the end of 1990s onwards (UNDP)⁵⁷, including the following.

- Public funding is the most obvious challenge, the public resources allocated to education having plunged from 7–9% of GDP in the 1980s to 2–3% of (a much smaller) GDP in the 1990s.
- Private household expenditure on education is roughly twice that of public expenditure, and this spending is very uneven across the income distribution. Households in the richest quintile at the end of the 1990s spent three times as much per child as households in the poorest quintile. This inequality in access to education will have an impact on the access of future generations to jobs, which are key to escaping vulnerability to poverty.
- The decline in public resources for education jeopardises the tradition of universal access to education. Primary school enrolment, which was nearly universal during the Soviet period, has fallen to around 93%, and the largest declines are among poorer groups. Overall inequality in educational achievement also increased during the 1990s, and this inequality is strongly correlated with household incomes. Even for public education, households face significant ancillary expenses – such as transportation and food – which may place the cost of education beyond the means of poor households. These direct household expenses and the opportunity cost of time spent in school combine to make poorer households less likely to enrol in school at all educational levels. The positive relationship between income and educational attainment is especially strong at the highest levels, where non-poor individuals are three times more likely than poor individuals to pursue higher education.

Cuts in the real budget for education have had significant effects on all aspects of quality of education (USAID, 2005).

- Most of the reduction in real funding for education has been absorbed through cuts in the real value of teachers' salaries, which currently represent the vast majority of expenditure on education. Wages have fallen to around 37–40% of GDP per capita. Low salary levels explain why so many teachers hold more than one job and organise paid private tutoring sessions, including for their own day students. Despite the nominal low student to teacher ratio, in reality many schools lack teachers.
- Cuts in the education budget were also realised through the deferral of essential non-salary expenditures, such as those dedicated to quality enhancement and the modernisation of learning materials, equipment and premises. Real expenditure on teaching materials was USD 1.51 per student in 1997 and USD 1.27 in 2002.
- The lack of spending on new textbooks, library books and laboratory equipment has seriously compromised education, particularly because Armenia needs to update textbooks and other learning materials to its own language and cultural identity.
- Under-funding of the maintenance of buildings and equipment has not only affected the quality of education, but has also contributed to an accelerated deterioration of all capital assets. Many buildings are now unsafe and beyond repair, and need to be replaced.

1.8 The public VET system

1.8.1 Primary and secondary VET

Preliminary VET in Armenia is now called 'craft' vocational education. The attractiveness of this type of education was already low before the transition period. As explained below, the provision of primary VET programmes has been disrupted since 2001, following the adoption of the Law on Education (1999), the text of which did not recognise this sub-system as a separate form of educational institution. In fact, before this point the cohort of primary VET students was greatly reduced (6,000 in 1999 and 5,100 in 2000), compared with secondary VET (over 26,000 students).

Secondary VET (middle professional education) represents a viable education pathway for young people that enjoy higher recognition among the population. Its objective is to prepare young skilled professionals for middle-level positions in various vocational groups, and it delivers the 'junior specialist' qualification.

⁵⁷ <http://www.undp.org/poverty/docs-propoor/armenia-report/Armenia%2008Chapter6The%20Nature%20of%20Poverty2.doc>

Secondary VET programmes are also provided in three university colleges at the Armenian State Architectural University, Armenian State Agricultural University and Yerevan State Medical University.

In principle, after 2001 secondary VET schools were also supposed to provide primary VET programmes, but the two sub-systems are separated by deep conceptual discrepancies and different objectives, so in practice the expected continuity between them has not taken place. However, in the aftermath of the resumption of primary VET in 2004/05 a number of colleges (secondary VET) and even senior general schools started offering primary VET programmes.

Primary VET, or craft education, aims to train young people for workers' qualifications. Comparison of this qualification level with those of secondary VET is difficult because of their diverging objectives. Secondary VET qualifications are intended to enable young people to supervise staff and manage production processes and services, rather than to implement workers' tasks and functions. Nowadays secondary VET programmes tend to offer qualifications in various areas of services, management, pedagogy and health rather than production (industry and agriculture).

Primary VET programmes offer both a vocational qualification and a secondary general diploma (Matura), and therefore provide access to higher education. Pathways linking students' progression across the two vocational sub-systems are not promoted, despite the fact that secondary VET establishments can also deliver craft diploma qualifications.

As well as schools, the law recognises other paths for the acquisition of primary VET qualifications, including company training centres, prisons, and workshops for individual programmes (apprenticeships).

1.8.2 Access to VET

Admission to VET and further study after VET are determined by a mixture of rules, including market demand and government intervention to regulate available places by vocation, places for study that are free of charge, and provisions regarding access to higher education. Despite the fact that they have studied for more years than students of secondary general education, VET graduates in general must follow the general procedure for admission to higher education. The legal framework surrounding this matter has been unstable, or has been limited by a lack of operational mechanisms; thus, access for good VET graduates to Year 2 of higher education has in fact been unfeasible for several years (since 2000). This situation represents a real disincentive to enrol in VET for some young people. The attractiveness of each education pathway depends on its openness to new and further education pathways.

Initial and middle vocational education can be accessed following either basic general or secondary (complete) general education. Instruction in vocational education institutions is provided both free of charge and for a tuition fee. Such fees were introduced in 1992.

Every year the government confirms the number of study places that will be offered free of charge by vocation. The MoES allocates the confirmed places by vocation to VET institutions under its tutelage, as well as to other ministries that run VET schools.

The school licence defines the features of the VET service that can be offered, in terms of the list of vocations and the number of students that can be admitted annually for those vocations. On this basis the number of places available for paid study is determined.

VET schools set the level of tuition fee, which may fluctuate from USD 60 to 350 (expressed in AMD), but in the academic year 2006/07 these fees are higher (Table 24). The size of the fee depends on factors such as the demand for, and image of, the profession and the school, as well as socioeconomic conditions in the locality. The levels of tuition fees for artistic and medical vocations tend to be high, followed by those for pedagogy, law and languages. However, in some remote or poor regions and residential areas, tuition fees are lower.

Enrolment in vocational education institutions is carried out on a competitive basis. For free study places, entrance examinations are required in two to five subjects. Applicants reaching the highest examination marks are admitted to free places. Since 2005 access to paid places does not require the passing of entrance examination. Marks obtained in the general (basic or secondary) school certificate are a sufficient condition for entry.

People with first- and second-degree disabilities¹, orphans (up to 23 years of age), and children and spouses of deceased soldiers have entrance privileges and can enrol in study places for non-competitive free education (if this is provided for their chosen profession) upon passing an entrance examination.

Up to and including 1990, only citizens up to 30 years of age could enter vocational institutions. In 1991 the age restriction was cancelled.

Secondary VET requires more years of study than does secondary general education. Hence, the law provides for some form of compensation for high-performing VET graduates (those with marks classed as 'good' or 'excellent'). Such students are given the opportunity to continue their studies in a consecutive higher education institution on a competitive basis, and to start in the second or third year. However, the legislative framework covering this area has been unstable and impractical: in 2000 this provision was temporarily disrupted by a government decision, and in 2002 a new regulation permitting the transfer of high-performing VET graduates to the second or third year of university was approved⁵⁹. In practice this regulation has not been operational, since the list of vocations and institutions among which the transfer is permitted is not yet approved. Currently it is only graduates of university colleges (College of Armenian State Engineering University, College of Armenian State Agricultural Academy, College of Yerevan State Medical University) who may continue their education in the respective university from the third year (for practically all professions). These students cannot benefit from free education. Each of the three universities mentioned follows its own admission procedures for their college graduates, but all follow a competitive procedure and take into consideration the college graduation marks of each applicant.

The general rule is that secondary VET graduates should have access to university on the same basis as other students with a Matura diploma.

In order to stimulate enrolment in VET and support students from vulnerable groups, the new VET Law provides for compensation (in the form of a benefit) for the tuition fees payable by economically vulnerable students who perform well at school. This provision will come into force from 2006/07.

Private institutions (both colleges and universities) are free to organise and implement their own entrance procedures. The only legislative requirement is that entrance to these establishments should be realised on a competitive basis.

1.8.3 Governance of VET

The state education administration authority is the MoES, which centrally manages the majority of VET schools, although a number of other ministries manage and run sector-specific VET establishments.

Higher education is administered directly by the central body, the MoES. Management of general education establishments is decentralised to regional bodies, and the Department of Education of Marzpetaran⁶⁰ is responsible for the direct administration of general secondary schools. Only a small number of general schools (so called 'schools of national importance') are under the supervision of the MoES.

Governance of the VET system is characterised by a mixture of centralisation (decision making is located at central ministry level, and school managers have limited scope for decisions) and institutional fragmentation (several ministries administer VET schools). In fact the VET Law adopted in 2005 was unable to pass the initial draft proposal regarding administration of the whole VET system by one ministry alone – the MoES.

Half of primary VET schools, recently reinitiated, are administered by Marzpetarans (regional governments), while the rest are administered centrally by the MoES.

Compulsory education was eight years for those who entered school before 2001, and is now nine for those who entered from 2001 onwards. Senior school (general) has a duration of two years following compulsory education. Secondary VET ('middle professional', colleges) has a duration of two to three years following compulsory education or one to one and a half years following complete general education, and leads to a 'junior technician' qualification. Initial VET (now called 'craft preliminary VET') has a duration of two to three years following compulsory education and leads to the qualification of 'craftsperson'.

⁵⁸ There are three levels of classification for disabilities. The first level is the most severe.

⁵⁹ 'The regulation to give the right to the graduates of middle professional institutions who show strong progress to continue their education in a consecutive higher educational institution.'

⁶⁰ Regional governments.

Responsibility for the current administration of secondary VET schools is allocated as follows.

Ministry	Number of schools
Education and Science	54
Agriculture	9
Health	12
Culture and Youth Issues	3
Energy	1
Department of Physical Culture and Sports	2

The key functions of the MoES as the main body responsible for the development and administration of education are:

- managing the system;
- formulating the unified state education policy and its supervision;
- formulating the national programme of education development and controlling its implementation;
- controlling the implementation of state educational standards;
- carrying out licensing and accreditation of education establishments (public, and private of all legal forms), except those providing medical studies;
- preparing model charters for education establishments;
- preparing classifiers of qualifications;
- developing and adopting rules and principles for admission to public schools.

The Department of Vocational Education ('VET department') is part of the structure of the MoES. It supervises both primary and secondary VET sub-systems, and is sub-divided in two corresponding divisions.

The primary VET division is poorly staffed (four individuals, including the head of the division and the head of department).

The Ministry of Health has a Department of Science, Education and Human Resources Management that is responsible for a number of key functions regarding the development, management and supervision of the VET establishments that serve the health sector. Within the department the science and education division deals more closely with tasks relating to the area of education. These functions include:

- organisation of an effective, sustained and performing system of medical education;
- participation in the development of draft legislation relating to scientific and educational areas;
- participation in the process of licensing of medical education programmes and establishments;
- participation in the management of medical VET schools;
- organisation of audits and inspection of medical schools, including VET level (secondary), both public and private;
- control of compliance with professional educational standards;
- preparation of draft legislation regarding medical education programmes, including licensing and educational standards, in cooperation with the MoES and other bodies.

This picture reflects the institutional fragmentation of VET, i.e., the system does not follow a unified framework, which creates difficulties in terms of coordination.

Moreover, there are gaps in the description and allocation of functions and responsibilities to ministries and to local government bodies in respect of VET. Although 13 primary VET schools are administered by Marzperatans, the existing legislative framework deals only very briefly with the responsibilities of these local bodies in the area of VET.

The National Institute for Education was created by a decree of December 2005. It is the result of the merging of various methodological and research institutions dealing with educational issues, namely the National Institute of Pedagogy, the National Pedagogical Library, the Scientific-Research Institute of Pedagogy, the Programme-Methodology Department of MoES, and others. The functions of the National Institute for Education encompass all levels of formal education, and its Department of Vocational Education carries out the following task, among others:

- development and piloting of state programmes;
- development and implementation of reforms of the system;
- provision of a scientific, methodological and experimental service;
- expert assessments.

Participation of the social partners in education, particularly VET, is limited, and remains sporadic or declarative, though the new law recognises the role of social partnership. One of the main priorities of the VET reform is currently the operationalisation of social partnership and dialogue; basically, there is a need for more, better and systematic participation of employers in such key functions as VET content, qualification profiles and assessment.

In 2006 Tacis assisted the improvement of the governance of VET through a policy-advice project in support of the National Centre for VET Development (NCVETD). This project has been temporarily suspended. The governing body of this future Centre, the VET Council, should gather social partners together in relevant thematic groups, based on effective involvement. Further reflection is needed in order to ensure coherence and avoid duplications in the allocation of functions and responsibilities to the NCVETD.

1.8.4 Basic figures relating to the public VET system

In 2005/06 the VET system comprised:

- 26 schools for preliminary (craft) VET (28 in 2006/07);
- 81 public secondary VET schools (colleges);
- 34 private secondary VET schools;
- 3 universities providing secondary VET programmes (university colleges).

In the aftermath of the resumption of craft education in 2004/05, 28 vocational profiles are offered in various types of establishments: 28 craft VET schools, 3 senior general schools, and 17 colleges (academic year 2006/07).

Table 19: Basic data on the public VET system

VET (public)	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05*
Schools VET primary	63	56	0	0	0	26
Schools VET secondary	77	75	77	77	81	81
Students VET primary	6,000	5,100				3,684
Students VET secondary	28,000	26,900	29,300	27,600	28,600	30,500
Entrants VET secondary	6,300	10,500	11,300	10,200	10,300	11,200
Graduates VET secondary	7,800	7,800	7,900	8,600	8,000	9,400
Students VET secondary per 10,000 population	73.6	70.7	77.1	85.8	89.0	
Teachers VET secondary **	5,238	4,751	4,713	4,663	4,653	4,407
Ratio students / teachers	5.3	5.7	6.2	5.9	6.1	6.9

Sources: NSS, 'Statistical Yearbook Armenia 2004', Education and Culture Chapter; National Observatory Armenia, Report 2005.

* Data for 2004/05 are extracted from a different source from NSS and might show discrepancies compared with NSS data (number of students, entrants). Available official data from NSS covered up to 2003/04 only.

** For 1999/00 we used available data (1998/99).

Table 20: Entrants and students in preliminary (craft) VET, 2006/07

			Entrants	Students
Craft VET			2,000	6,120
Of which:				
Tuition-free	places	(state subsidised)	1,500	4,820

Source: MoES

1.8.4.1 State budget expenditure

During the years of transition the reduction in public spending on education was significant. In 1991 state expenditure on education amounted to 7.2% of GDP, while in 2002 it was only 2.2% of GDP.

During the period 2001–02 some 65% of public funds were channelled to elementary, basic, secondary and special education, and around 16% was allocated to financing professional education⁶¹.

Table 21: State expenditure in the education sector, 2006 (according to the Medium-Term Expenditures Framework for 2006–08) (AMD million)

Sector	2004		2005		2006		2007		2008	
	exp.	% of total	exp.	% of total	exp.	% of total	exp.	% of total	exp.	% of total
Total for education & science	44,125.4	100.0	57,655.7	100.0	65,975.9	100.0	75,293.9	100.0	90,447.9	100.0
By sectors										
Administration of education & science (different state bodies: central and regional)	190.6	0.4	194.9	0.3	269.4	0.4	303.4	0.4	353.2	0.4
General education (elementary, basic, secondary)	34,369.6	77.9	45,075.6	78.2	52,927.7	80.2	61,676.1	81.9	76,177.0	84.2
Special ¹ general education	2,505.2	5.7	3,481.6	6.0	4,187.9	6.4	4,423.9	5.9	4,833.8	5.3
Out-of-school education	826.1	1.9	1,732.5	3.0	884.0	1.3	884.0	1.2	884.0	1.0
Preliminary professional education	357.6	0.8	669.6	1.2	986.7	1.5	1,261.0	1.7	1,405.8	1.6
Middle professional education	1,235.4	2.8	1,454.5	2.5	1,567.7	2.4	1,592.7	2.1	1,640.1	1.8
Higher and postgraduate education	3,852.9	8.7	4,305.5	7.5	4,572.8	6.9	4,562.5	6.0	4,557.5	5.0
Supplementary education	787.9	1.8	741.5	1.3	579.7	0.9	590.3	0.8	596.5	0.7

Source: Ministry of Finance and Economy (MoFE), available at: www.mfe.gov.am

1.8.4.2 Teachers

Like other CIS countries, Armenia kept an excessive number of teachers employed for many years during the transition period, despite the country's particular demographic conditions and the falling number of users for younger education levels.

Table 22: Number and characteristics of teachers in public general schools

Year	Total (women and men)	Women		With VET education		Women with VET education		With non-pedagogical education		Women with non-pedagogical education	
		Number	%	Number	%	Number	%	Number	%	Number	%
2001/02	51,235	43,476	84.86%	9,630	18.80%	8,311	86.30%	4,817	9.40%	3,431	71.23%
2002/03	50,325	42,438	84.33%	9,736	19.35%	8,375	86.02%	4,506	8.95%	3,251	72.15%
2003/04	43,412	36,678	84.49%	5,538	12.76%	4,638	83.75%	3,136	7.22%	2,243	71.52%

Source: NSS⁶²

⁶¹ In Armenia 'professional education' includes primary vocational and also secondary, higher and postgraduate professional educational programmes.

⁶² 'Social Situation in the RA for 2001', NSS, Yerevan 2003, p.18;

'Social Situation in the RA for 2002', NSS, Yerevan 2003, p.20;

'Social Situation in the RA for 2004', NSS, Yerevan 2003, pp. 28–9.

Table 23: Teachers in secondary VET (extracted from Table 19)

VET	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Teachers VET secondary	5,238	4,751	4,713	4,663	4,653	4,407
Ratio of students to teachers (approx.)	5.3	5.7	6.2	5.9	6.1	6.9

Source: NSS

The very low student to teacher ratios indicate very high inefficiencies in the management of the system, which will affect the success of the reform processes, particularly in terms of teachers' development and the resulting quality of education.

In 2004 the GoRA initiated a process to rationalise the number of active teachers, accompanied by social support and labour market reintegration measures.

1.8.5 Education – a strategic pillar of social and economic development policy in Armenia

The PRSP gives priority to increasing public financing for the education system. The target is to increase education expenditure of the consolidated budget in the period 2004–15 by an average of 13% per annum in nominal terms (approximately 4.5% per annum in the first five years, 2004–08).

If consolidated budget expenditure on education in 2003 amounted to 10% of total state budget expenditure, the target is to reach a 14.1% share in 2006 and 17.6% in 2015. This increase will result in an inter-sectoral redistribution of budget expenditure in favour of education. In the early years the bulk of the increased expenditure will benefit secondary education.

The PRSP views the secondary vocational and higher education sectors as being its secondary priorities, general education being the top priority. General education is considered as the basis for increased enrolment in senior schools and the professional education system, particularly for children from vulnerable families.

The PRSP clearly recognises the role of VET in poverty reduction and economic development, since it states that the principal way to reduce the existing high rate of structural unemployment is to reform the VET system, including the rehabilitation and strengthening of its provision. Policy objectives concerning secondary vocational and higher education include:

- compatibility with the rules of the market economy;
- enhanced quality and compliance with international standards;
- improved accessibility and equality.

The PRSP envisages measures to promote enrolment in both the upper secondary school and professional education programmes, with particular attention on equality issues. In January 2004 the GoRA approved a decree listing all measures that would ensure the fulfilment of the PRSP, an extract of which appears in Annex 3.

1.8.6 Education sector policy in the reform phase

1.8.6.1 Policy and legislative framework

Purposes of education

Professional education programmes are aimed at the preparation of citizens through the general and professional levels of education, the shaping of their abilities and skills, the enlargement of their scope of knowledge and an increase in their qualifications. Basic professional education programmes include:

- 1) preliminary professional (craft), corresponding to initial VET;
- 2) middle professional (non-tertiary);
- 3) higher professional;
- 4) postgraduate professional.

Legislative framework

The framework that lays down the principal pillars of education policy (see Annex 4) includes the following legislation and strategic development programmes (sector and national):

- Constitution (1995);
- Law on Education (1999);
- VET Law (2005);
- State Programme of Education Development (2001–05);
- PRSP (2003).

Article 35 of the Constitution specifies the following on professional education:

‘Every citizen is entitled to education.

Education shall be free of charge in state secondary education institutions.

Every citizen is entitled to receive higher and other specialised education free of charge and on a competitive basis, in state educational institutions.

The establishment and operation of private education institutions shall be prescribed by law⁶³.

The Law on Education lays down the key objectives of public policy in education, based on the national school: the formation of citizens with appropriate professional preparation and comprehensive development, built on the principles of patriotism, statehood and humanism. The Law on Education has received a number of amendments since 2000. In 2003–04 the amendments mainly concerned professional education.

Other strategic and legislative acts have had effects on the VET system and its institutions in recent years.

In 2001 the National Assembly approved the State Programme of Education Development for 2001–05, the main objective of which is to prepare the population for responsible citizenship as a means of fostering national unity and the social progress of society. The programme addresses the situation and issues of the education system, the objectives and implementation periods of the programme, its tasks and activities, the state and social guarantees of the students, and the financial provisions of the programme, and contains a list and schedule of the actions to be implemented. The programme envisages the reforms to be implemented in the VET area: normative legal, content, social, economic and further organisational developments, international and intra-national involvement, educational democracy, the formation of the public administration system, the maintenance of a unified education sector, and other issues in the area of education.

Despite the strategic importance of this programme for the education sector, no specific budget allocation was identified to fund its activities. Objectives were considered rather ambitious, particularly because the programme lacked funds to support their implementation. The programme was not connected to other education sector projects supported by donors, and remained more of a document of intentions. Moreover, the implementation of this strategic programme was not subject to continuing and transparent monitoring, and there are no substantial and valid reports available. The MoES reportedly started some annual summary reporting on various aspects of the programme implementation, but analytical reports were not produced. The original strategy was not subject to adjustments.

The Law on Licensing (2001) introduced the obligation to license secondary VET services. Thus, all secondary VET schools, both public and private, had to undergo licensing. The relatively high licence fee (AMD 300,000) presented a serious problem for many schools. Unlikely secondary VET, craft education (primary VET) is not subject to licensing.

From 2002 the Law on State Non-Commercial Organisations also had an effect on Armenia’s education system. All state educational institutions were reorganised into state non-commercial organisations. In compliance with the new legal framework and the introduction of the charter of secondary VET schools, supplementary education services for the market were allowed. Examples include the organisation of general education, supplementary education, out-of-school education, preparatory courses and vocational training; retraining, requalification and skills upgrading for employed people and professionals;

⁶³ Unofficial translation, Constitution of RA.

and the implementation of scientific research work, educational production and production and customer service.

The Law on Social Protection of Children Without Parental Care (2002) raised the age of children without parents who are allowed to enter educational institutions with privileges (remaining outside competition and being entitled to the benefit of free education) from 18 to 23 years.

VET policy documents drafted with EU assistance

Aside from the abovementioned changes and amendments to the Law on Education, the legislative framework was completed with a number of elements relating to professional education. Two major elements are the Strategy of Craftsmanship and Middle Professional Education and Training (endorsed in 2004 by the Government) and the VET Law (2005).

In practice the key objectives of the strategy have only been partially adopted. The VET Law (adopted in 2005 after the Strategy) did not fulfil the objective of unifying the statutory framework of VET under one key ministry.

The VET Law⁶⁴ (2005) introduced a number of innovative features. It regulated the principles of public policy in the VET system; its organisational, legal and financial-economic basis; and the rights, obligations, responsibilities and relationships of individuals. The law took into consideration the new VET concepts developed in Armenia (such as craftsman, social partner, credit, and student's benefit). The principles of public policy on vocational education are presented in innovative terms, for example:

- a) compliance of the professional knowledge and skills of the student and trainee with demands of the economy and labour market;
- b) transparent and corporate management and administration of VET system;
- c) social partnership;
- d) competitiveness and publicity;
- e) legal equality of all VET providers;
- f) autonomy and control;
- g) accessibility and democracy of VET;
- h) compliance of vocational education qualifications with international standards.

Some of the innovations introduced by the law related to fields including quality assurance, school management, assessment and social partnership. However, the definition of some concepts is vague, and might present difficulties in enforcement.

- **Quality assurance:** 'The state governance body authorised⁶⁵ in the field of Preliminary and Middle professional education approves the regulation of quality assessment in the organisations providing Preliminary and Middle professional education⁶⁶ and/or regulation on the procedure of quality assurance by organisation of accreditation ...'
- **School management:** A collective governing body called the College Council is foreseen in each college. The council will be responsible in particular for the adoption of the college budget and for the appointment of the college director⁶⁷. But this provision will enter into force only in September 2008.
- **Assessment:** According to the new law a 'credit system' will operate in the VET system. Credits previously obtained by students will influence the assessment and duration of their training during their further studies.
- **Social partnership** The law clearly defines who are acknowledged as social partners: 'Organisation or association (union) of organisations including any type of educational institution, which supports, cooperates with the VET system and is interested in the development of the system'. In addition, the social partners are also recognised in the law as being part of the VET system.

⁶⁴ The draft was developed with EU assistance, in 2003 – 2004.

⁶⁵ This authorised body is the MoES or other ministries that have colleges under their supervision.

⁶⁶ Primary and secondary VET.

⁶⁷ VET school directors had previously been appointed by the respective ministries.

Nevertheless, the legal framework of VET is incomplete, numerous pieces of sub-legislation regulating the VET process are still missing, and enforcement of new laws is deficient.

With the adoption of the VET Law it is necessary to develop and introduce a whole range of sub-legislation, as follows.

1. School management:
 - a. procedures for the selection and appointment of the director, heads of branches, departments and divisions;
 - b. sample statutes of the preliminary and middle vocational education institutions (primary and secondary VET);
2. Teachers' development:
 - a. procedures for the retraining and certification of the teaching staff in the system;
 - b. requirements for grading and positions of teaching staff.

The large Tacis project (2004–06) 'Support for the development of an integrated vocational education and training system in Armenia' delivered two significant outcomes: the VET Modernisation Priorities Paper and Action Plan (endorsed by the MoES in 2004), and the new modular competence-based curricula (technical part) for four pilot vocations.

Main changes in the structure of the education system

In 2001 the duration of general education (secondary (complete) general education) was extended from 10 to 11 years. Meanwhile, the years of basic general (i.e. compulsory) education were extended by one year (from eight to nine). The minimum age for entry to education was reduced from 7 to 6.5 years. This change also has a direct effect on the number and age of entrants to vocational education. The change to the duration of schooling was introduced without a transition mechanism; hence, in 2011 Armenian secondary general schools will have no graduates⁶⁸.

In 1999 the new Law on Education practically eliminated the Professional-Technical Educational Institutions (PTI), which prepared workers (primary VET). According to the same law, primary VET programmes were supposed to be carried on through initial (craft) education programmes at senior general schools with craft streams, and through middle professional education institutions (secondary VET, colleges), or at the educational-production centres of enterprises. Thus, an independent type of education institution that specialised in primary professional education was extinguished in Armenia. This requirement of the law was utilised in 2001 through the government programme 'Rationalisation of the Middle and Initial Professional Education System of the RA'. The majority of the 58 PTIs operating at that time were reorganised into senior schools with craft streams, and the remaining PTIs were merged with colleges operating in the surrounding area.

In practice this transfer of education programmes was not successful. Senior schools with craft streams, being general education institutions, were not authorised to deliver professional education and provide their graduates with professional qualifications. On the other hand, secondary colleges had neither the experience (tradition), nor the adequate premises for workers' training. Organising the new learning programmes required time; moreover, the network of colleges was insufficient to absorb all the PTIs that had been closed down.

Theoretically, the educational centres of enterprises were supposed to be the most effective way forward, but such centres did not yet exist in practice in Armenia.

In order to solve these problems and have a fresh start in the development of primary VET, several amendments to the Law on Education were introduced in 2005. 'Craft school' educational institutions were revived, and the corresponding qualification level (craftsperson) introduced into the legislative framework.

Another change concerns the recognition of individual training in the form of apprenticeships. Master-trainee learning is a longstanding tradition in Armenian society, but was previously considered a shadow (illegal) form of training. The new legal provision integrates apprenticeships into systemic and supervised education.

⁶⁸ Children studying from 2001 under the new regulation (11 years) will complete the full cycle in 2012 at the earliest, while those who started in 2000 will complete secondary school (10 years) in 2010.

VET can be provided in prisons, and contributes to the social integration of the target group through professionally relevant activity.

Paid education in state establishments

One of the major changes with regard to access to education was the introduction of tuition fees in public VET and higher education. State regulation of access to subsidised places was maintained ('state order', or 'gos zakaz'), but the number of such places is greatly exceeded by the demand.

In craft education, which has a recognised social role, a relatively high proportion of admissions in 2006/07 will be offered on the basis of state-subsidised education (free of charge to students). Only 500 out of the 2,000 students admitted pay tuition fees.

However, entitlement to a state-subsidised place depends on the student's performance (grades attained in admission exams), rather than on the socioeconomic status of the family. Only in 2006/07 is a new system being introduced that also takes into consideration the socioeconomic vulnerability status of the student.

The amount of tuition fees vary, as shown in Table 24.

Table 24: Tuition fees – minimum and maximum amount per year (AMD), 2006

	Minimum	Maximum
Craft VET	50,000 (USD 136)	100,000 (USD 273)
Secondary VET	50,000	300,000 (USD 819)
Higher education (public)	190,000 (USD 519)	800,000 (USD 2,185) 1,000,000 (postgraduate medical studies)
Higher education (private)		USD 1,000

Source: MoES

USD 1 = approximately AMD 367 (exchange rate on 6 December 2006⁶⁹)

In view of the wage situation in Armenia (see Table 25, the amount of tuition fees for the most expensive VET studies (dentistry) and tertiary education appear to be a serious burden for many families, and can be a factor that hampers the maintenance of high enrolment rates across lower-income quintiles of the population. The minimum annual tuition fee for a craft VET course corresponds to more than three months' minimum wage.

Table 25: Wages, 2005 (AMD)

Minimum monthly wage	13,000 (USD 35)
Average monthly wage (December 2005)	65,282 (USD 178)

Source: NSS, 'Statistical Yearbook Armenia', 2006

USD 1 = approximately AMD 367 (exchange rate on 6 December 2006)

1.8.7 Recent VET reform measures and policy documents

In 2003, with assistance from Tacis, Armenia engaged in a process of more consistent reform and modernisation of the VET system.

The VET Law, drafted with Tacis support in 2003–04, was adopted in July 2005.

In 2004 the MoES officially adopted the VET Reform Strategy⁷⁰ drafted in the framework of Tacis cooperation in 2003–04. The project identified the key problem areas in the VET system, which were summarised as follows:

- 1) inadequate opportunities for young people and adults in terms of lifelong professional education and training;
- 2) low quality of VET provision;

⁶⁹ <http://fx.sauder.ubc.ca/supplement.html>

⁷⁰ Designation: Strategy of Craftsmanship and Middle Professional Education and Training

- 3) weak organisational structures and partnerships;
- 4) inefficient resource mobilisation, distribution and utilisation.

The major strategic guidelines of the reform strategy included such points as educational continuity, skills provision according to personal capacities and the needs of the economy and labour market, the involvement of social partners, and lifelong learning.

Further Tacis assistance to the implementation of VET reform started in early 2004 (up to the end of 2006). This large project focused on three elements:

- 1) policy and strategy;
- 2) VET institutions and VET teacher training;
- 3) employment and the labour market.

A key deliverable of this project (Direction 1) was the VET Modernisation Priorities Paper and Action Plan. The paper prioritised the introduction of competence-based VET standards, the modernisation of quality assurance mechanisms and certification, the creation of a state non-commercial technical support and quality assurance institute, improvements in cost efficiency and educational outcomes, and optimisation of VET financing. However, the financial and technical support necessary to carry out the modernisation measures is not granted in the state budget. In fact, the document is a programme (endorsed by the ministry) that represents a portfolio for negotiation of contributions from various donors.

Another highly important outcome of EU cooperation was the pilot development and implementation of modular education programmes in VET.

Despite the support and political will of the Armenian government, the reform initiated is confronted with a number of constraints.

- Financial and human resource limitations reduce the capacity of the government to implement the key measures of the VET Modernisation Priorities Action Plan.
- A number of questions relevant to the transformation of the VET system and its provision are recognised, but the international technical assistance that is available covers only some of the important and urgent issues.
- VET institutions benefit from the political will essential to implement the reform. However, their human and material resources for strategic and development activities are very limited.
- Opportunities to learn from international practice are still limited, and national institutional capacity to deal with the issues raised by the reform (qualification and qualifications frameworks, standards, curriculum, quality assurance, teachers' development, innovative learning methods) requires serious investment.
- The VET department⁷¹, responsible for the overall policy and administration of VET is understaffed for the wide set of tasks under its responsibility and has no monitoring capacity. The independent Inspectorate of General Education and VET has a control function, not monitoring. With Tacis support the MoES started since end 2006 the preparation to set up the National Council for VET Development, an institution expected to improve the sub-sector capacities and performance in matters of social dialogue, methodology and technical development.

In 2005 intensive work was deployed to develop competence-based curricula, within the framework of the VET reform activities supported by Tacis. A number of pilot VET secondary schools have been directly involved in this activity, and positive progress has been achieved in capacity building for VET practitioners and social partners, and the preparation of the new curricula for selected vocations. Introduction of the new curricula is in progress in the pilot schools.

Since 2004 the MoES has been restoring initial VET programmes, and 28 establishments have resumed their services. However, the overall initial VET curriculum is undergoing revision, and so far its provision has been narrow and disorganised⁷².

In 2006 the Government approved the 'Concept and Strategy for Adult Education', whose major principles are:

⁷¹ The VET department has 2 units (preliminary and secondary VET) each with 2 staff and a manager.

⁷² The catalogue of professions for initial VET comprises around 50 main profiles (grouped into 8 categories), but of these only 18 were effectively offered in schools (2005). In 2006 this figure increased to 28.

- To ensure and enhance vocational education for all citizens regardless of their age
- To develop new educational and retraining materials
- To contribute to introduction of new teaching methods
- To enhance the efficiency of vocational education and relations with the labour market.

The MTEF 2007–09⁷³ recognises all the above mentioned strategic and policy documents as basis for the sub-sector development. However the MTEF does not incorporate most of the policy measures endorsed by the Government in these documents. The share of planned expenditures on VET (all levels) in total education expenditures remains in the level 11.8% (2007) to 13.4% (2009). Preliminary VET will absorb the largest part of the growth of expenditures in the sub-sector during 2007–09. Drivers of expenditure in the sub-sector are:

- Increased in wages in compliance with the principles followed for general education
- Increase of tuition-free places in preliminary VET schools by 1,000 places and opening if new VET schools during 2007–09
- Increase by 20% in the calculation norm to meet nutrition needs of students in 2007
- Increase in the allocations for public utilities as a result of increase in tariffs.

1.8.8 Problems affecting the VET system

A paradox is becoming increasingly apparent in the Armenian labour market: in the competition for jobs requiring secondary vocational qualifications, holders of VET qualifications are at a disadvantage when competing with an excessive number of job seekers who have higher education. Inappropriate allocation of human resources to existing jobs is counterproductive for the competitiveness of the economy.

The low level of public spending on education has resulted in a high level of actual household expenditure on education⁷⁴. In VET, only around 45% of total expenditure is funded by the state, the rest being funded from student fees and other sources.

In 2002 over three-quarters of all VET students were paying tuition fees. Despite the strong motivation of Armenian families to invest in education, the reduction in the number of free places in education increases the financial burden on families and increases the risk of economically vulnerable young people being excluded from education. Armenia needs to maintain a strong focus on the development of human capital, since this is the sole vital asset of its economy.

The expenditure necessary for the development of the education system (rehabilitation of buildings, procurement of modern equipment, training of managers and instructors, new methodological literature, manuals and textbooks) is left to the educational institutions themselves, and has to be funded from their external out-of-budget revenues.

During the transition period the public education system (professional and higher education) introduced paid education and reduced the proportion of places for non-paying students. Following a period of steep decline in the number of entrants into VET, in recent years this trend was reversed, and an increase was registered in the number of applicants to secondary vocational education institutions⁷⁵.

The highest concentrations of vocational students are in public health and sports (23.1%), economics (17%), pedagogy (15.8%), and transport and communication (14.1%). Arts and cinema (6.8%) and industry and construction (6.2%) represent other groups worthy of mention.

A clear gender imbalance currently characterises enrolment in secondary VET establishments (colleges), where girls largely predominate. Boys tend to aspire to higher education⁷⁶.

The efficiency of the education system is low. In the secondary education system the pupil to teacher and pupil to non-teacher ratios were 11 and 18 respectively. Teacher remuneration is low, as is workload. In 2003 the government started the General Schools Optimisation Programme, which was

⁷³ MTEF 2007-09, www.mfe.gov.am

⁷⁴ This includes various contributions for extra-curricular activities, extra-class tutoring, and other informal payments.

⁷⁵ In 1991 there were 55,980 VET students; in 1998 there were 28,390; in 2002 there were 28,600; and in 2004 there were 34,184. These are official figures, and they represent the total number of students in all years of study. Secondary VET corresponds to 'middle professional education'.

⁷⁶ To a certain extent this is in order to escape military service.

accompanied by social support measures for the people affected; as a result, 15,000 teachers were laid off.

Theoretical teaching still prevails. Work practice and internships are either overly formal or incomplete, as a result of the lack of cooperation with enterprises. Active learning and a refocus towards critical thinking, problem solving and creativity are still foreign concepts, and the system primarily values theoretical knowledge. This has a negative impact on the relevance of professional qualifications.

According to the MoEA's request for technical assistance, some important areas will not be covered by the ongoing Tacis technical assistance and will require complementary contributions, including in the following spheres:

- revision of the qualifications system and the adoption of a new conceptual basis in line with international developments;
- elaboration of occupational and educational standards based on sound methodology;
- sector studies and links with occupational profiles;
- improvement of curriculum development and assessment methods;
- revision of the catalogue of occupations;
- quality assurance policy and institutional building.

1.8.9 Growing skills inequality and inadequate preparation for entry to the labour market

The increase in the level of poverty during transition, together with the widespread reduction of free educational places, contributed, over a decade, to a concentration of valuable skills and recognised qualifications among better-off young people in urban areas. Moreover, shifts in educational choices led to a concentration of students and graduates in higher education, and a reduction of the emergent labour force with technical and scientific profiles.

Economic restructuring, the collapse of large industrial enterprises and the continuing contraction of employment can explain the majority of the shifts in educational choices. However, without a well-functioning career guidance and labour market information system that is open and accessible to young people in various phases of their personal development, there is the danger that educational choices will be led by social and peer pressure rather than by more rational and pragmatic motivations.

The numbers of young people entering the Armenian labour market with higher education and secondary VET qualifications from 1999 to 2003 are given in Table 26.

Table 26: Potential entrants in the labour market – graduates of VET and higher education

Graduates	1999/00	2000/01	2001/02	2002/03	2003/04
Higher education	7,800	6,700	7,600	7,700	8,200
VET	7,800	7,800	7,900	8,600	8,000

Source: NSS, 2004

However, there is a larger group of young people who have completed secondary general education, but are not admitted to any of the formal pathways that provide professionally relevant education. Table 27 gives an estimate of the size of this group, which varies from 14,300 to 11,600 young people per year.

Table 27: Destination of young people completing secondary general education, 2001/00–2004/05: those entering higher education and VET, and those at risk of a lack of skills for employment

	2001/02	2002/03	2003/04	2004/05
Graduates of secondary general education (10 years)	44,678	42,893	44,025	43,979
Total admitted to VET schools	12,111	11,187	9,949	9,327
Total admitted to higher education (HE)	18,203	20,527	21,475	22,997
Number of individuals remaining (general education minus VET and HE)	14,364	11,179	12,601	11,655
% of total graduates of secondary general education	32.2%	26.1%	28.6%	26.5%

Although the size of this group has decreased over time (from 14,364 in 2001 to 11,655 in 2004), these individuals are at risk in the labour market if access to other forms of relevant and recognised training for jobs is not facilitated. The strictly academic and theoretical nature of secondary general education, which is deprived of any professionally relevant tracking or curriculum orientation, means that Matura diplomas in fact prepare young people only for a continuation of their studies, not for entry into employment or other forms of active life.

No information is available on early school leavers and drop-outs. Attendance rates are another missing piece of information necessary to assess the number of young people at risk of exclusion or labour market disadvantage as a result of low skill levels.

Recognition of this situation gives education policy an opportunity to revisit on the one hand the purposes and approaches of secondary general education and the necessary reform of adult learning, and on the other the expansion of the capacity and flexibility of VET pathways to ensure they cater for young people leaving secondary school for active life.

1.8.10 International cooperation with the education sector in Armenia

1.8.10.1 Cooperation with the EU

The main policy outputs of the Tacis assistance are the VET Strategy and the VET Modernisation Priorities and Action Plan approved by the government, as well as the VET Law, which was adopted in mid 2005.

Tacis supports the VET reform in Armenia through the Support to the Development of an Integrated Vocational Education and Training (VET) System project, which started in early 2004. Preliminary work was delivered through the short-term Support to the Development of a Strategy and Legal Framework for the Implementation of the VET Reform project.

As well as the abovementioned work on policy documents (VET modernisation priorities) and modular competence-based curricula, this project was responsible for other significant outputs / outcomes:

- Component 1 (VET policy):
 - o guide for VET policy and strategy development
 - o management manual
 - o VET information centre
- Component 2 (VET institutions):
 - o improvements in VET college management
 - o strategic development and business plans
 - o staff appraisal system
 - o standard and modular curricula for VET teachers' pre- and in-service training
 - o introduction of VET teachers' pre- and in-service training system
 - o VET system decentralisation paper
- Component 3 (labour market):
 - o capacity building on the preparation of new modular curricula, competence-based modules, teaching, learning and assessment materials for four strategic occupations

(jewellery, land management, garment making, auto transport exploitation and maintenance);

- teachers trained on the implementation of competence-based curricula and on modern assessment methods;
 - training advice units
- Equipment:
- laboratory and workshop equipment for pilot colleges;
 - computer classrooms for pilot colleges;
 - modern audio and visual teaching equipment for all pilot and partner colleges.

This Tacis project worked with 4 pilot colleges (secondary VET) and 13 partner colleges, in 3 pilot regions (Lori, Tavush and Yerevan).

Despite the relative effectiveness of this project, its outcomes were constrained by a number of factors:

- the limited number of pilot regions and colleges, as well as of problems addressed;
- resistance to change;
- the fact that the prevailing VET structure in Armenia was not open to change;
- the absence of an appropriate VET support structure (one of the priorities for VET modernisation).

In 2006 a new small EU project was launched to assist the establishment of the National Centre for VET Development, with a planned duration of six months. The project is currently suspended, and its proposed strategy is undergoing some discussion among key stakeholders.

Under the last Tacis Action Programme (2006) the EU will continue its engagement in education reform in Armenia through a sector policy support programme covering two components, VET and social affairs (child care). This sector policy programme will have a transitional dimension with the new ENPI.

1.8.10.2 Other partners

International cooperation partners are also active in the area of VET, particularly GTZ, with a regional programme and a teachers' training project (modernisation of teaching methods). The latter focuses on active participation methods and is carried out through the usual cascade approach. There are difficulties in implementing the new learning methods within a system that has only recently opened up to innovation.

Other international NGOs develop studies and debate issues in the area of adult education (IIZ-DVV, Germany), and lobby for the elaboration of a high-level framework for lifelong learning.

Sida has assisted three pilot regional offices of the SEA with capacity building and policy advice activities. Although there have been recognised benefits in terms of greater effectiveness, the thematic coverage and geographic reach are still limited. USAID and the World Bank have funded some relevant studies on labour market trends, employment policy and the need to develop the SEA; these studies propose some viable options for multi-level measures, though little is being done with donors' support to improve the dynamism of the participants in the labour market itself.

The World Bank Education Sector Reform focuses on secondary general education.

1.9 Qualifications system

The Law on Education and the VET Law (Law on Preliminary and Middle Professional Education) specify and regulate the qualification levels obtained as outcomes of primary and secondary VET learning.

Two qualification levels are recognised as outcomes of primary and secondary VET, 'craftsperson' and 'specialist'. The former reflects outcomes of craft education (primary) and the latter the qualification awarded for secondary VET.

The newly adopted definition of 'craftsperson' is the 'qualification level of initial professional (craft) education, which is granted to the individuals who have completed the appropriate course, final certification of initial professional (craft) programme' (January 2005).

The classifier of professions for craft education⁷⁷ includes three layers:

- 8 broad sections (economic or technical branches), subdivided into groups;
- 50 groups (occupational fields), each with a number of specialisations (jobs);
- 230 narrower 'qualifications' (narrow professional title) covering all groups.

Secondary VET has a different classifier, which has only two layers:

- 28 broad sections, with varying numbers of professions;
- 257 professions.

The classifier for primary VET is organised on the principle of economic activity or economic branch. Its structure clearly differs from that of the classifier for secondary VET. In fact the latter is built on a mixed principle linked more closely to areas of knowledge, in which titles of specialisations do not usually refer to work or activity. The secondary VET classifier is rather comprehensive in scope, a feature explained by its reliance on fields of knowledge mixed with areas of activity. In contrast to this more academic (knowledge) approach, the titles of primary VET qualifications clearly and specifically refer to work and workers, and to narrow occupations.

Closer analysis of these two differing approaches demonstrates the VET culture inherited from the recent past; this needs to be taken into account in the reform process. The respective approaches indicate that secondary VET tends to be strongly linked to the learning of knowledge (albeit specialised), while in contrast, primary VET is linked to jobs and crafts.

Table 28 presents the whole of the upper-level categories (broader) of the two classifiers, with a selection of specialisations, by section, to illustrate the two VET approaches.

Table 28: Extract from classifiers of professions, primary and secondary VET

Broader categories of the primary VET classifier (number of occupational groups by section)	Broader categories of the secondary VET classifier (number of professions by section)
Machinery and metalwork (3 groups) - Gas-welder - Turner - Grinder - Non-ferrous metals foundry worker	Natural sciences (2 professions) - Hydrology - Meteorology
Chemical production (11 groups) - Chemical analyses laboratory assistant - Person in charge of apparatus - Vulcanisation process operator	Law, social work and humanities (9) - Jurisprudence - Publishing - Interpreting and archives
Instruments, equipment, electrical stations and networks (4 groups) - Electrician with mobile-operative team, driver - Chip assembler	Education (7) - Teaching of Armenian and foreign languages - Musical education
Construction (8 groups) - Parquet craftsman - Carpenter-constructor, joiner - Stonemason	Healthcare (10) - Medical treatment - Medical optics
Transportation and communications (4 groups) - Diesel locomotive driver - Electrical locomotive driver - Telephone operator	Culture and arts (18) - Painting - Sculpture
Consumer goods production (5 groups) - Twister - Sewer	Economics and management (10) - Management - Insurance
Trades and services (5 groups) - Baker - Carpet maker	Geology (7) - Gemmology
Agriculture (9 groups) - Wine-maker, driver - Butter/cheese manufacturer	Mining (8) - Mine survey
	Energy (8) - Atomic and nuclear power stations

⁷⁷ Decree No 637-N of RA Government dated 27 May 2003.

	Metallurgy (6) - Ferrous metallurgy
	Machinery (11) - Mechanical engineering technology
	Technological machines, equipment and transport (12) - Exploitation and service of machine tools
	Electro-techniques (6) - Electrical machines and apparatus
	Equipment building (11) - Precision mechanical instruments
	Electronics, microelectronics, radio techniques and telecommunications (18) - Electronic instruments and equipment
	Automation and control (7) - Automation of technological processes and production
	Information technologies (4) - Computer, computing complexes, systems and nets
	Service (10) - Service organisation in hotels and tourist complexes
	Operation of transport (5) - Air-transport traffic management
	Chemical technology (15) - Chemical technology of organic materials - Analytic quality control of chemical compounds
	Forestry (5) - Timber treatment technology
	Food technology (10) - Technology of tinned food and food-infecting materials
	Consumer goods technology (15) - Spinning production - Quality examiner - consumer goods
	Construction and architecture (17) - Architecture - Construction of bridges
	Geodesy and cartography (3) - Applied geodesy - Cartography
	Agriculture and fishery (13) - Organisation of use of land - Agronomy
	Environmental protection (4) - Radiation safety
	Metrology, standardisation and quality control (6) - Quality control of construction articles and construction

1.9.1 Curriculum

In Armenia the term 'curriculum' has entered the language of educationalists and policymakers, though the conceptual basis supporting its use is not clearly defined. Different users imply different meanings and purposes.

According to our observations, the learning process in Armenia is supported by and built on a set of elements, some of which are of recent introduction. Key elements are:

- educational standards - by profession;
- education plan (for the total duration of the course leading to a qualification: this states the learning subjects and the time allocated to each one, per quarter or semester; it includes the schedule for examinations and the technical specifications such as equipment and premises required);
- education programme (plan of learning topics for a subject);

- lesson plan;
- technical specifications (materials, equipment, premises).

Educational standards have been introduced in recent years, and in 2003 the GoRA approved a regulation specifying both the preparation process and the structure of these standards (Annex 6).

The secondary VET curriculum currently in use comprises four main sections (Annex 7):

1. general and socioeconomic subjects (common to all professions);
2. mathematical and natural sciences;
3. professional subjects (vocationally relevant);
4. special professional subjects (vocationally relevant).

Learning is organised on a subject-based principle, with predominantly theoretical teaching, accompanied by some practice in school workshops and laboratories, wherever possible. The pattern of theory and practice does not usually allow effective connection between, nor mutual enrichment of, these two sources of learning. For example, relatively long periods of theoretical classes (three to four months) are complemented with some practical classes lasting two to four weeks.

Several forms of practical learning are recognised in formal education: educational (carried out in schools), technological (in organisations, enterprises) and pre-diploma (immediately before the final examination).

VET schools have not re-established systemic interactions with the enterprises that emerged during the transition period; technological practice is therefore rarely carried out effectively. Dynamic school managers have succeeded in negotiating places and time for practice in enterprises, using family links and other personal contacts. But the lack of a systemic linkage between the enterprise and VET worlds seriously undermines the quality and quantity of practical learning offered in terms of real production and employment conditions.

Moreover, workshops and laboratories in the large majority of schools are usually obsolete and poorly equipped, and offer only limited opportunities for testing and demonstration.

1.9.1.1 Reform of the curriculum

In 2005 significant curriculum innovations were developed and were implemented in four pilot occupations:

- 1) garment production technology;
- 2) auto vehicle repair and maintenance;
- 3) jewellery;
- 4) land management.

With EU assistance, the MoES and the selected pilot schools have completed the preparation of new curricula covering the entire content of sections 3 and 4 (the professional and special professional vocationally relevant subjects) for these professional studies, with the participation of employers who have relevant industry experience.

The integration of the new vocationally relevant elements into the current curriculum was achieved by substituting the subjects in the relevant sections with newly formulated modules. Part 1 remains untouched up to now, and part 2 of the learning content of section 2 (mathematics and natural sciences) has been reorganised into a modular approach.

The innovative aspects of this curriculum reform are important, and are in line with the government objectives expressed in the VET Modernisation Priorities Action Plan, adopted in 2004. These new aspects are as follows:

- process: the direct involvement of experienced enterprises and technicians in the consultation and preparation of the outcome description and modular content;
- competence-based curriculum;
- modular organisation of learning;

- introduction of core skills into the curriculum.

The plan is that the subjects of section 1 will subsequently be reorganised into learning modules.

Students can now also acquire partial qualifications, depending on the number of modules completed.

Implementation of the curriculum reform has begun in pilot schools for the four professions indicated. This initial phase will require careful monitoring and effective training and support for teachers and trainers.

1.10 Teachers and trainers

The importance of motivated and qualified teachers as key contributors to the reform process is immense, although it is not always taken into due consideration. The successful introduction of innovations in learning and assessment, more active participation of the school in local social and economic development, and constructive interaction with social partners are all largely dependent on the proper involvement of teachers and trainers.

Education policy needs to address the issue of attractiveness and public perception of the teaching profession, particularly the key aspects of wages, social protection and professional development.

In 2004/05 there were 4,407 teachers in vocational education institutions, 3,888 of whom were employed in public secondary VET (over two-thirds of these being women) and 519 in the private sector. Most teachers worked full-time⁷⁸.

Various problems affect teachers' performance in the VET schools. The system of teachers' development and training remains weak and incomplete, and this has a consequent effect on the quality of learning. The problem of ageing and the outflow of qualified teachers reflect the lack of competitiveness of the teaching profession and jobs in the education system. The average age of teachers is 55 years and one in six teachers is a pensioner⁷⁹.

In Armenia the gender breakdown of employment in teaching positions shows a large imbalance, with women occupying over 80% of jobs in public education and 70% in private. As well as traditional factors, wage levels are largely responsible for lack of attractiveness of the profession for men, particularly for those with household responsibilities.

There is no operational system for teachers' certification and career progression. The MoES approved 'The order of certification of teachers and administrators of RA state colleges and middle vocational education institutions' on 25 February 1997. However, this act was not enforced. Under these conditions it is inappropriate to speak about official action.

There is no grading structure for teachers and managers in VET system. 'The grading structure for administrators and teaching staff of the state middle vocational education institutions of the Republic of Armenia' was developed and approved by the MoLSI in May 1994; it was based on Soviet tradition and is now out of date.

Teachers' specialised education (for general education schools) is provided by the State Pedagogical University and by VET colleges. The university prepares teachers for certain general subjects, such as mathematics, physics, chemistry, geography and languages, as well as teachers for primary (or elementary) school (grades 1–3), while VET colleges prepare teachers only for primary school⁸⁰. There is an obvious duplication of functions in terms of preparation of primary school teachers: VET colleges provide the required qualification in two years of study, while the university does it in four years.

Pre- and in-service training of teachers for the VET system is being reformed, but the system is currently still weak and incomplete. Approved standards for VET teachers' competences and skills, a framework for quality assurance and specialised training institutions all remain to be developed. There is neither the qualification nor profession of 'VET teacher' in the classifier. The only functioning training source is the former Yerevan Industrial-Pedagogical Technikum (at present Yerevan State Humanities-Technical College), which trains industrial training masters for the preliminary vocational/craft/education institutions.

⁷⁸ NSS, 'Social Situation in Armenia for 2004', 2005, Attachment 4.

⁷⁹ This estimate is based on the results of interviews with directors of VET institutions. No official data are available.

⁸⁰ Both university and VET colleges also prepare teachers for pre-school institutions.

Armenia implemented a measure to optimise the number of active teachers (2003–04). The General Schools Optimisation Programme led to a reduction of 15,000 teachers⁸¹, and was accompanied by measures to support labour market reintegration and possible job mobility of the target group.

The educational level of the large majority of VET teachers is high (higher education). Only 3–4% of active teachers have a VET qualification, and these work mainly in primary VET (craft). Specialisation in pedagogy is important for a teacher's career progression, but in practice there are many teachers with various higher education specialisations (non-pedagogy) successfully working in the public system (VET and general education).

Officially only graduates with a teaching qualification are entitled to work as teachers in general education. But in reality university graduates with a research qualification in other sciences also work as teachers (e.g. graduates of the physics or chemistry department of the Yerevan State University). According to state policy, the optimisation programme should lead to only those teachers with pedagogy qualifications being retained in general schools. However, in practice the selection procedures of the optimisation programme frequently gave preference to keeping teachers who had higher non-pedagogy education.

Graduates in pedagogy compete in the labour market as do any other job seekers: neither the MoES nor the schools are obliged to offer them jobs. The increase in the options for pedagogy studies and in the number of pedagogy graduates in recent years is therefore not supported by any particular level of protection in the labour market.

The optimisation programme showed that the teaching qualification (pedagogy) acquired in the secondary VET system is the most vulnerable. Teachers with this level of qualification were more affected by staff reductions in schools (2004). This fact had immediate consequences in terms of enrolment for pedagogy studies in colleges in 2005: numbers of applicants and admissions fell significantly compared with those in the previous academic year. Unlike admission to colleges, admission to higher education pedagogy studies was not particularly affected, but only because higher education, rather than the pedagogy career, is the attractive option. The lure of enrolling in higher education is more important than the professional and area option, or the future employment prospects.

There is a state requirement for retraining for all non-pedagogue teachers, a number of whom still remain in schools, especially in the regions and rural areas.

Recruitment of new teachers in recent years has been limited, as shown in Table 29⁸².

Table 29: Recruitment of teachers

Academic year	Number of teachers
2003/04	53
2004/05	144
2005/06	101

During the period 2003–05, 30 university students were transferred to 'individual training schedules' (a type of part-time training) to work part-time as teachers before graduation.

These figures show that the demand for new teachers (creation of new teaching jobs or replacement of current staff) is low. It cannot absorb the large numbers of graduates of pedagogy studies from the various education pathways who enter the labour market every year. Table 30 shows the significant proportion of pedagogy students admitted to VET colleges, as well as the declining trend that has been registered over the past two years.

Table 30: Students of pedagogy in VET colleges

Year	Admitted	Share of college students
2001/02	2,042	13.1%
2002/03	2,187	15.8%
2003/04	2,578	16.0%
2004/05	1,330	n.a.

Sources: NSS, 'Social Situation in the RA' (for 2001, 2002, 2003 and 2004); MoES, VET Department

⁸¹ World Bank Educational Project Implementation Unit in Armenia.

⁸² Source: Staff Management Department, MoES.

The majority of the teachers recruited (approximately 70%) work in distant regions, especially in villages close to the state border, and in mountainous and high-mountainous zones. According to official data, no teachers were recruited in Yerevan in 2005.

Table 31: Teachers

Year	Total	Women		With pedagogy education from VET college		Women with pedagogy education from VET college		With non-pedagogy education		Women with non-pedagogy education	
		Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
2001/02	51,235	43,476	84.8%	9,630	18.8%	8,311	86.3%	4,817	9.40%	3,431	71.2%
2002/03	50,325	42,438	84.3%	9,736	19.3%	8,375	86.0%	4,506	8.95%	3,251	72.2%
2003/04	43,412	36,678	84.5%	5,538	12.8%	4,638	83.8%	3,136	7.22%	2,243	71.5%

Sources: NSS, 'Social Situation in the RA' (for 2001, 2002, 2003 and 2004)

1.10.1 Reforms in teachers' training

In order to address some of the significant gaps discussed above relating to the development of teachers for the VET system, Armenia is introducing some curriculum reforms at the Pedagogical University aimed at improving the specialist training available for this category of teachers.

The following information was kindly shared with the ETF by the team of the EU VET Reform project. In order to institutionalise a VET teachers' pre-service training system, a new modular-based postgraduate course (one year) for VET teachers is being developed with the assistance of the EU Support to the Development of an Integrated VET System in Armenia project. Pending MoES approval of this new curriculum, it was envisaged that the innovations would be piloted in the Armenian State Pedagogical University during the 2005/06 academic year.

The proposed curriculum will consist of a number of competence-based modules aimed at providing the knowledge and skills necessary for teachers to deliver courses within a reformed VET system. These modules will include training in student-centred teaching methods and criterion-reference assessment techniques, as well as classroom management and facilitation skills.

The modular programme will incorporate the results of the Functional Analysis of Teacher's Knowledge and Skills undertaken by the project, and will follow the Dacum method, which has also been used to develop the new modular curricula for pilot VET schools.

The new course will initially be offered on a full-time basis with the possibility, following its evaluation, of the course being offered through a number of different delivery modes, including distance learning.

In order to facilitate this new course, teaching staff at the Pedagogical University will receive training in student-centred teaching methods and criterion-reference assessment.

The staff appraisal systems being developed and introduced are intended to identify the specific individual training needs of teachers. The resulting analysis will determine what training is required where, and by whom, and will inform recommendations on how such training might be accessed. Provision of professional development capacities within schools will be considered, particularly monitoring capabilities, and alternative training providers will be identified.

At the same time, 18 Change Agent Teachers (CATs), who have received training on modern teaching methodologies and competence-based assessment techniques, have initiated in-service teacher training in their respective schools and other partner schools. Approximately 260 teachers were trained by CATs in 2005. A subsequent period of evaluation will determine the need and scope for a second phase of training delivery.

1.11 School management

1.11.1 Policy and legal framework

All the state vocational education institutions are, in terms of legal-organisational form, state non-commercial enterprises, and their management is carried out by the director according to the Law on

Education, the Law on State Non-commercial Enterprises, exemplary statutes of MVETs, and other legal acts and statutes of the institutions.

Management of the state institutions is undertaken by the founder, its authorised state body, executive body, and director. The founder, i.e. the GoRA:

- stipulates the subject and objectives of the institution, including the types of entrepreneurial activities it can perform;
- reorganises or liquidates institutions;
- resolves other issues stipulated by the law or statute of the institution.

The authorised state body, i.e. the ministry that directly supervises the institution:

- approves the statute of the institution and makes amendments to it;
- stipulates the system of management;
- in an order established by the statute of the organisation, forms its management bodies and terminates their powers pre-term as appropriate;
- supervises the activities of the institution;
- terminates or cancels any orders, instructions and directives of the executive body or corporate body of the institution that contradict the requirements of Armenian legislation;
- considers reports on the activities of the institution;
- considers the audit report on their activities;
- supervises the use and maintenance of the state property attached to the institution;
- supervises the property of the institution;
- approves the sale or leasing of its property;
- approves the annual reports of the institution and annual balance, if the institution does not have a corporate management body.

The statute of the institution can also put in place a corporate management body, a board and/or consultative body, or board of directors.

The corporate management body, as a counterbalance to the executive body, is granted some powers by the Law on State Non-commercial Enterprises and exemplary statutes of MVETs and ICs. Moreover, it is also stipulated that the director of the institution cannot be a member of the institution. However, so far no corporate management body exists in any of the institutions, since, as mentioned previously, their existence is not vital. The main reason is that the VET management structure is still unprepared for the cooperation of two contradictory bodies inside the same institution. Given the current traditions and culture of the management, and the degree of preparedness of the managers, the parallel activities of two bodies have the potential to paralyse the activities of the organisation.

The director of the institution, appointed and dismissed by the authorised state body, carries out the day-to-day administration of the institution.

In order to improve the quality of the education and progression of the students, increase the professional skills of the teachers, and introduce advanced expertise into the established order, the institutions set up chairs (educational-methodology, scientific-methodology) and pedagogical boards, which act upon the regulations approved by the director.

1.11.2 Towards growing autonomy. School assets, accountability and responsibility. School management training: policy and programmes

Although the Law on Education stipulates the autonomy and academic freedom of educational institutions, the autonomy and corporate management mechanisms in these institutions are currently weak.

So far only the directors have been appointed; there are no corporate management bodies in the VET system.

The expansion of self-administration is mainly being held back by the inadequacy of reporting mechanisms, and the consequently hampering of the institutions' systems and managers.

The participation of society in the education process and the democratisation of the education system are also taking place only slowly.

With a view to facilitating the activities of state educational institutions, these institutions are given rights to use property, including the buildings, facilities, and assets of historical-cultural significance, assets that are worth 10,000 times more than the minimum salary⁸³. The buildings, facilities, and assets of historical-cultural significance are given to them on condition that they are used in accordance with their targeted purpose.

Each state educational institution is responsible for the maintenance and effective use of the property of the owner.

According to the Law on Education, the educational institution is responsible for the quality assurance and training processes of its staff. However, it should be mentioned that the management and regular staff in the VET sector do not have an opportunity to take part in quality assurance. There are no strategic development plans for the training of VET management staff; the directors are not familiar with business administration, though the institutions have broad opportunities for entrepreneurial activities. In the past, VET personnel would benefit from the training facilities attached to the universities, though they would sometimes not take into account the professional directions, interests and benefits of VET.

1.11.3 International cooperation

The Education Development National Programme envisages, and now to a certain extent has put into practice, study tours to other countries to facilitate the exchange of experience and integration into international education society. Cooperation with international and other foreign organisations also take place, as do various participative events. Thus, within VET Armenia programmes, six directors of vocational education institutions in Armenia recently visited Scotland, a trip that was organised within the framework of Tacis, financed through the Support to the Development of Vocational Education and Training/VET/Joint System project.

Within the Tacis VET Armenia project, recommendations on the development of VET college directors' and deputy directors' job profiles were produced for the MoES. The objective was to introduce a new role, since the current job profiles for directors and deputy directors will need to change significantly to enable them in the future to manage and lead a market-led VET college environment. The new role will be focused on:

- strategic leadership and management skills;
- encouraging and developing innovative and opportunity-driven action;
- communicating the future vision and development of the college.

In addition, the post holders must have or develop:

- modern management skills;
- a high level of resource management skills;
- effective IT skills and capability.

Directors and deputies of the 17 pilot and partner colleges have undertaken training on College Strategic Development Plan Design and produced draft plans for their own colleges with the assistance of the project team. Permanent support for the project will try to ensure the development of capacities and skills for sustainable implementation of this exercise in all colleges in Armenia in the future.

1.12 Vocational guidance, counselling and information

It is necessary to support students in their choice of career. Individuals should be given information on increasing their employability within their education opportunities and on the appropriate orientation, given the permanently changing circumstances of the labour market and the economy. In this respect the VET system must be closely linked to requirements of the labour market and industry. Thus vocational guidance, counselling and issues relating to choice of profession are crucial.

⁸³ In 2005 the minimum salary in Armenia was AMD 20,000.

The professional choices that today's young people make will determine their social choices and future status. Inconsistency between vocational and personal qualities could mean an individual having to retrain in the future.

In Armenia the vocational guidance, counselling and information process is completely inadequate and ineffective. The scope of knowledge and pedagogical preparedness of the teachers is insufficient.

In vocational guidance, counselling and information in the VET system, traditional forms and methods inherited from Soviet times still prevail. These include announcements in the media (on public and local radio, and on television), various events, meetings and conversations with applicants, conferences, counselling, and the organisation of open days.

A legally protected concept has not so far been developed, and there is no entity in charge of the guidance and counselling function that would ensure the link between VET system and the labour market.

As a result of this situation, young people mainly make their choices spontaneously, sometimes on the advice of parents, relatives and friends, quite often unjustifiably, and sometimes on the basis of tradition. Often young people choose the institution that is closest to their home, and in some towns it is the only institution.

At the same time, the relevant ministries in particular do understand the need to fill into this gap, and it is mentioned in the VET Strategy, under 'Provision of skills by individual abilities' and 'Provision of skills by economy and labour market needs'.

1.13 Private VET

An ETF study in Armenia⁸⁴ in 2004 showed that the training services market had considerably increased and diversified with the entry of non-public providers, while organisations with NGO status represented around 50% of the approximately 380 training organisations. ITC courses predominated, followed by foreign languages and crafts (jewellery, carpet weaving).

Only rarely have public VET establishments, restructured as part of the rationalisation process, engaged in adult education and training. In general, access to professional training is limited to the variable provision of temporary projects and NGOs, or to expensive private providers, thus constraining the lifelong learning needs of the employed and unemployed population, particularly of young job seekers.

All branches of the economy face difficulties with HRD, and these represent a serious constraint to the growth of enterprises. For food-processing enterprises, a sector that is considered a priority for diversification and regional development, the problem is acute, since the VET system has little sector-relevant provision with recognised qualifications.

⁸⁴ www.etf.europa.eu

CONCLUSIONS

1. Since the mid 1990s the Armenian government has been one of the most advanced reformists in the CIS, and Armenia has been among the fastest growing economies in the Southern Caucasus. However, Armenia is resource-poor, it remains a landlocked economy, and it has low income levels despite a high, though rapidly diminishing, stock of human capital. The country's future depends on the government's ability to expand investment in human capital, and to support export opportunities for Armenian firms by helping them to restructure and facilitating their linkages with global markets.

Armenia's future options for social and economic development will benefit from an improved cross-border situation, and from fair and stable relations with its neighbours. Stability is key for Armenia to gain access to major investment projects in the region, particularly those linked with energy and energy routes.

2. In terms of economic development, the challenge Armenia faces is twofold. First, it needs to sustain high growth rates for some years. Second, growth must undergo a qualitative change in the direction of making a more positive impact on the reduction of poverty and inequality, the recovery of employment and economic activity of the labour force, and improved living standards.

Sustainable job creation and a vibrant labour market are key for Armenia to raise the employment rate of its population, which currently stands at low levels that are well below the targets of the EU, of which Armenia is now a close neighbour. Economic and employment policy must coordinate strategies and measures towards an economic growth that also creates jobs.

The social assistance components of poverty reduction policy need to be combined with more and better funded activation policies for vulnerable populations.

Public employment services need to shift their focus towards active measures and improve their work through more proactive mechanisms, information and promotion, and transparency in targeting.

3. Armenia needs to maintain a consistent focus on the development of its human capital and the improvement of the competitiveness of its labour force. The country's lack of natural resources can be seen as a positive factor that brings an unavoidable need, on the one hand to invest better and more in human capital, through a coherent lifelong learning approach that is necessary to counter the skills gaps that partly hamper the development of employment, and on the other to fight skills-based social inequalities that bring a risk of intergenerational disadvantage in the labour market and society at large.

Moreover, Armenia must recover from the effects of brain drain in technical and scientific areas that has quickly eroded the previously recognised quality of its labour force.

Active policy is needed in order to stimulate demographic growth and to reverse migration, both of which are long-term processes. Armenia's policy armoury ought to stimulate and diversify the economic returns of migration, which can embrace investments in new competitive clusters, but also technology transfer and improved links with external markets for Armenian businesses.

4. The GoRA has clearly recognised the role and importance of the development of the education sector. Both in integrated country development programmes (such as the PRSP), and in sector development strategy documents, the education reforms are a priority.

The mere adoption of education sector strategy documents is no guarantee of effective reform, as experience shows. The strategic State Programme for Education Development (2001–05) was poorly implemented and monitored, in part because of a lack of adequate funding mechanisms, proper monitoring and data analysis, and adjustments to objectives and measures over time.

Over the past three years the government has adopted a range of substantial policy documents and thematic technical papers in support of the reform of VET, which can also benefit other education sub-sectors. These include the VET Strategy, the VET Modernisation Priorities Paper and Action Plan, the VET system decentralisation paper, and the Guide for VET policy and strategy development, all of which were elaborated with EU assistance. But these need to be implemented, monitored and adjusted over time. Moreover, cooperation and effective exchanges across the sub-sectors of education and their official institutions need to be improved.

5. Despite the severe decline in state funding during the transition period, enrolment rates remained high, but policy must consistently support equity in access and promote shifts in educational choices towards those levels and forms of education and training that better facilitate entry into active life.

In addition to legislation and structural change, the reform of education needs to maintain its focus on educational processes and outcomes. Tradition and innovation need to be balanced, and much remains to be achieved in terms of consistent changes to educational practice. Despite the various modernisation measures addressing teaching and teachers, theoretical learning still dominates, with the teacher at the centre of the process and the student in a more passive absorption position rather than a creative one.

Other challenges facing education reform pertain to guidance and information. The culturally imbedded appeal of higher education, irrespective of the area of choice, currently remains the key criterion for students' choices. There is no open and functioning system of vocational and career guidance in place to assist young people and adults with more objective and reliable advice and information.

6. The reform processes that have started in VET with Tacis assistance will not yield the expected overarching effects (improved employability, job-skills matching and sustainable growth of employment rates) without appropriate complementary actions from employment policies and more dynamic job creation in non-agricultural sectors.

The sustainable success of VET modernisation will likewise depend on the consistency of its support basis:

- a consistent focus on the key priorities for further action that have been identified;
- overall government policy and funding;
- governance institutions;
- the institutional and human resources capacity of the government;
- the inputs of social partners, particularly employers;
- the donor community and its readiness to contribute to exchanges of experience and technical assistance.

The modernisation of VET cannot be separated from clear policy towards a coherent and functioning lifelong learning system, which has only just become an issue in the debate. Two separate non-communicating VET levels continue to co-exist without attractive pathways across the education system that would be an incentive to enrol in VET. In this context Armenia may benefit from its entry into the Bologna Process⁸⁵ and an increased exposure to international practice. Armenia's participation in the Bologna Process must become a driver for change, with long-term consequences that also embrace a reform of qualifications and the national qualifications framework.

The tools and capacity for observing and analysing trends in the economic sectors and regional labour markets in relation to education and training need to be built and systematically applied, if the government is to improve the quality of its decision making.

The empowerment of local and regional players is another major factor in the successful expansion of the reforms. Despite its small size, Armenia displays significant internal variations in terms of socioeconomic indicators and prospects. Much needs to be initiated in terms of enhancing the practical responsibility and motivation of VET schools and their social partners at local level. The balanced empowerment of local players will be another key challenge of the VET reform, but an important one for its success.

7. The competitiveness of most Armenian industries will depend on maintaining the availability of:

- personnel with modern technical skills but also with core competences that represent the basis for broad professional aptitudes and lifelong skills development;
- personnel with sound industry-relevant qualifications;
- personnel with business and management training;
- effective innovation and research links between business organisations and education and training institutions.

A paradox of the Armenian labour market has become increasingly apparent: in the competition for jobs requiring secondary vocational qualifications, holders of VET qualifications are at a disadvantage when competing with the excessive number of job seekers with higher education. This current inappropriate

⁸⁵ On 19 May 2005 the fourth Ministerial Conference of the Bologna Process accepted the applications of Armenia, Azerbaijan, Georgia, Moldova and Ukraine to participate in the Bologna Process.

allocation of human resources to existing jobs is counterproductive for the competitiveness of enterprises, and contributes to the persistence of distortions in education choices and in the relevance of qualifications.

Active policy is needed in order to reverse the established aspirations of the population towards higher education irrespective of the quality and market value of the diplomas awarded; and to increase enrolments in technological and industry-relevant profiles, at the expense of educational options that are geared to some sort of social prestige but are deprived of sustainable employment opportunities in the medium term.

Generic competences for work are not part of education outcomes, though enterprises are increasingly seeking this set of competences.

8. The education and skills development agenda faces a twofold challenge:

1. internal: the rapid growth of the economy raises the need for new responsive mechanisms for continuous skills development, which must be developed, implemented and properly funded;
2. external: Armenia's entry into the Bologna Process⁸⁶ will expose the system's insufficiencies, in terms of quality assurance and comparability, to broader scrutiny, and can therefore become a driving force to revisit the reform process.

⁸⁶ On 19 May 2005.

RECOMMENDATIONS

1. Focus on equitable human capital development

In 2002 over three-quarters of all VET students were paying tuition fees. Despite the strong motivation of Armenian families to invest in education, the reduction in the number of free places in education increases the financial burden on many families and enhances the risk of economically vulnerable young people being excluded from education.

Armenia needs to maintain a strong focus on the development of its overall human capital, and to avoid the creation of a layer of excluded low-skilled people in the population. Skills-related vulnerability in the labour market, particularly in the conditions of an economy whose key asset is human capital, can exacerbate socioeconomic inequalities and lead to intergenerational exclusion from the labour market.

In the light of the agenda linked with closer European integration under the ENP, it is crucial for Armenia to maintain the competitiveness, flexibility and adaptability of its labour force, this being the necessary basis for, on the one hand, inclusive socioeconomic development, and on the other, an increase in the employment rates of the population.

2. Labour market

Employment has not been growing at the same pace as GDP. Furthermore, the jobs that have been created have to a large extent been within agriculture and small-scale businesses and services. The formal labour market employs less than 20% of the working-age population.

The major challenges in the Armenian labour market are:

- to facilitate the conditions for the creation of more and better jobs;
- to improve the quality, quantity and access to labour market information and intermediation;
- to mitigate a further depletion of skills from brain drain and to ensure the better use of existing skills;
- to adapt labour market, tax and social policy to the realities of the labour market, i.e. take into account that a large majority of the working-age population do not have a permanent regular job, or are active in agricultural activities;
- in particular, to target supply-side measures to reach the individuals that will need them most.

The technical assistance provided to the SEA by donors needs to be enhanced and continued in order to embrace the areas of policy and technical capacity, with an emphasis on the job creation challenges of the economy.

Measures to build the capacity of the SEA and its regional offices are required in order to improve the effectiveness of active labour market policies and introduce new and creative forms of cooperation with education and training institutions.

Measures to support partnerships with education and training institutions to provide labour market information and inputs into vocational and career guidance are likely to be attractive and effective for both sides, and should contribute to the institutional and inter-sector dialogue that is much needed.

Policy to attract migrants' potential into growth industries and new technology sectors may help to reduce skill mismatches and gaps in such sectors, and could contribute to efficient technology transfer processes. Measures to support these objectives, through information, exchanges and incentives, need to be developed in cooperation with economic sectors and Armenian international interest groups.

3. VET reform

The VET reform process is very new, and continued support for its further consolidation is essential in order to ensure that the substantial policy priorities adopted in the past three years are effectively implemented and monitored.

In the current phase three key VET reform priorities deserve special attention:

- 1) educational (qualification) standards;
- 2) new qualifications framework;

- 3) the establishment of the National Centre for VET Development with clear functions complementary to those of other players, particularly the MoES, and the proper involvement of social partners.

Donor assistance is needed in order to support further developments of the VET system within a lifelong learning context, based on flexible pathways, responsiveness to changing skills needs, and matching Bologna principles. Key topics for donor assistance to development the education and training sector, particularly VET, include:

- governance and empowerment:
 - o systemic and better participation of social partners in skills development policy and programmes;
 - o empowerment of local and regional players (schools, local authorities, civil organisations) in all issues relating to skills development strategy and implementation in order to achieve better responsiveness to local socio-economies;
- competence-based education and training:
 - o revision of the qualifications system based on a new conceptual basis in line with international developments and the challenges of closer cooperation and integration with Europe in the framework of the ENP;
 - o revised occupational and educational profiles;
 - o competence-based learning;
- pathways and lifelong learning:
 - o quality assurance;
 - o adult learning development strategy and programmes;
 - o recognition of competences acquired through various learning forms, as a necessary incentive for lifelong learning and enhancement of employability;
- policy monitoring and accountability:
 - o capacity building in information and analysis of education and training system outcomes, particularly the transition from school to work.

Tacis assists the improvement of the governance of VET through a policy advice project in support of the National Centre for VET Development (NCVETD). This project was temporarily suspended in 2006. The governing body of this centre, the VET Council, should gather social partners together around relevant themes, based on effective involvement. Further reflection is needed in order to ascertain coherence and avoid duplications in the allocation of functions and responsibilities to the NCVETD.

The reform needs to emphasise lifelong learning mechanisms that offer attractive pathways across the education system and provide incentives to enrol in a more open VET system.

Technical assistance and institution-to-institution contacts are needed in order to support further development both at education policy and programming level (capacity building) and at school level (partnerships with local and school networks in partner countries, exchanges with local training and employment networks, capacity building for school management).

The MTEF needs to incorporate the policy measures endorsed by the Government and the MoES in the strategic documents elaborated with Tacis assistance in 2004–06: VET Strategy and especially the VET Modernisation Priorities Paper and Action Plan 2005–08.

4. Development and expansion of the adult learning area

This encompasses policy, quality assurance and recognition, and is key to ascertaining that education reform embraces an effective and operational lifelong learning framework. In order to respond to the short- and medium-term challenges of an economy whose single resource is human capital, adult learning must have a strategic position in future development exchanges.

Measures to support the development of policy and quality assurance concepts are required, through technical assistance and exchanges of international practice. Financing, recognition and validation are all aspects of acknowledged importance in which technical assistance and advice are vital.

5. Inter-sector and inter-policy links are key to the success of the VET reform

The effectiveness of the VET reform depends greatly on the reforms of the other levels of education, and on moves towards an integrated strategy for education as a whole. Better integration of education policy with other key programmes supporting socioeconomic development and employment will be mutually beneficial.

Issues relating to the purpose, structure and capacity of basic, general and higher education must be addressed in parallel with the reform of the VET system, in order that a coherent and strategically built system can be achieved. Responsiveness to labour market and technological changes will greatly depend on the ability of the whole education system.

Generic competences for work life need to be incorporated into the outcomes of education as a whole, irrespective of the vocational and career options.

As well as a multi-layer policy to improve the business climate and foster investment, skills and training are major elements that must be treated as high priorities for the underpinning of the development of non-oil enterprises, as well as innovation and entrepreneurship. The investment policy and enterprise development policy need to include skills development and HRD as major features.

6. Medium-term objective: transparency and portability of qualifications can be an important incentive for VET reform, in view of closer integration to EU markets

The entry of Armenia into the Bologna Process may become a driver for further changes in education, with consequences that extend to the need to work on a national qualifications framework.

A committed and participative project on a qualifications framework, based on the participation of social partners, raises a wide range of educational issues, including governance, labour market requirements vs. education, quality assurance, assessment, effectiveness of social partnership, learning outcomes, and recognition of non-formal learning. They are all essential for more relevant VET.

Donors' technical assistance and institution-to-institution exchanges on the issue of a revised qualification system and national qualifications framework are likely to be welcomed by the government, given the links to transparency and portability of qualifications, which are important for closer cooperation with European markets and programmes.

The EU has a wide and varied pool of knowledge on VET and labour market policy that the key institutions in Armenia are eager to tap into. With the adoption of the EU–Armenia Action Plan ENP, new perspectives and dimensions for cooperation are made possible. The process of preparation of the planned sector policy support programme under Tacis AP 2006 will create opportunities for more capacity building in sector policy development and monitoring, and will empower the key national institutions in the management of this substantial assistance.

ANNEXES

ANNEX 1: EMPLOYMENT RATES BY AGE GROUP AND LEVEL OF EDUCATION (%)

Source: NSS, at the request of the ETF

Employment rate: ratio of employed people to the total population (of the corresponding age group and level of education)

Age groups	2001					2002				
	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total
15–19	0.0	2.3	2.4	0.0	2.2	0.0	4.2	1.8	0.0	1.8
20–24	15.4	22.1	18.9	0.0	18.4	24.0	24.7	15.9	18.8	19.5
25–29	41.5	37.8	26.1	20.0	32.9	50.4	34.2	32.2	27.3	36.7
30–34	47.8	30.6	24.6	0.0	32.0	55.4	36.2	32.2	20.0	37.9
35–39	55.1	47.8	34.6	33.3	43.6	56.4	47.9	43.0	16.7	46.7
40–44	59.6	55.6	33.6	0.0	47.0	67.4	51.6	51.1	30.0	54.1
45–49	58.6	51.3	42.3	66.7	49.4	62.0	53.1	44.8	28.6	51.3
50–54	61.9	55.8	37.9	75.0	50.6	64.4	56.7	44.3	66.7	53.2
55–59	66.0	54.8	38.5	42.9	48.8	54.2	52.2	37.7	33.3	45.4
60–64	47.0	23.0	23.1	14.9	26.3	41.4	38.7	28.3	23.5	31.8
Total, 15–64	45.9	42.4	23.1	19.0	32.8	49.7	43.5	27.7	21.8	35.5

Age groups	2003					2004				
	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total
15–19	0.0	9.9	3.7	6.8	4.0	0.0	4.5	5.6	5.3	5.3
20–24	17.9	22.3	23.2	7.7	21.7	25.1	20.5	25.1	24.6	24.4
25–29	53.1	40.1	34.6	20.0	39.9	52.3	43.6	36.0	63.9	43.6
30–34	61.3	44.1	43.8	10.0	46.9	54.2	45.7	40.8	48.4	46.1
35–39	72.5	47.2	49.0	0.0	52.8	60.0	48.3	53.8	57.1	54.1
40–44	65.2	51.8	49.9	50.0	53.7	60.8	57.1	53.0	58.7	56.1
45–49	75.4	54.3	47.7	57.1	55.2	64.8	47.9	51.2	65.9	53.7
50–54	63.2	58.0	51.3	60.0	56.3	64.7	49.0	45.4	50.0	51.8
55–59	55.1	56.3	47.8	62.5	52.3	68.0	52.0	39.7	51.2	52.0
60–64	50.0	28.6	27.6	45.5	31.7	52.2	31.0	25.0	43.2	34.9
Total, 15–64	52.9	44.5	31.7	24.0	38.7	53.0	44.4	35.3	31.8	40.5

ANNEX 2: UNEMPLOYMENT RATES BY AGE GROUP AND LEVEL OF EDUCATION

Source: NSS, at the request of the ETF

Unemployment rate: the ratio of unemployed people to the total economically active population (of the corresponding age group and level of education)

Age groups	2001				
	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total
15-19	100.0	91.7	81.5	0.0	83.2
20-24	52.5	52.8	64.4	100.0	60.1
25-29	36.5	34.2	52.6	66.7	43.6
30-34	28.9	47.6	56.4	0.0	46.2
35-39	26.9	32.0	42.6	33.3	34.9
40-44	21.5	28.8	43.2	100.0	32.5
45-49	18	31.5	35.6	0.0	29.5
50-54	22	21.7	40.5	0.0	28.4
55-59	17.5	23.3	27.3	0.0	22.7
60-64	20.5	37.5	33.3	36.4	31.0
Total 15-64	26.9	34.1	49.1	39.4	38.9

Age groups	2002				
	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total
15-19	100.0	80.0	86.8	0.0	86.7
20-24	39.3	59.0	65.8	50.0	59.3
25-29	28.1	47.5	46.3	40.0	42.1
30-34	22.5	42.7	45.4	33.3	39.2
35-39	25.7	31.3	35.3	66.7	32.3
40-44	19.4	32.6	27.8	50.0	27.8
45-49	23.5	24.1	24.5	60.0	24.5
50-54	19.3	24.2	30.6	33.3	25.6
55-59	27.3	25.5	31.3	50.0	28.8
60-64	25.0	23.7	24.7	33.3	25.1
Total 15-64	25.0	35.1	41.3	43.8	35.9

	2003				
Age groups	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total
15-19	100.0	68.2	72.6	25.0	70.9
20-24	55.2	60.4	53.5	85.7	56.1
25-29	21.6	33.0	40.2	66.7	34.1
30-34	19.8	37.1	32.0	80.0	31.4
35-39	9.1	32.2	28.8	100.0	25.9
40-44	21.1	29.1	30.6	33.3	28.0
45-49	10.4	23.9	27.5	20.0	22.4
50-54	17.8	21.7	20.9	25.0	20.5
55-59	15.6	16.7	25.0	16.7	20.3
60-64	9.1	25.9	25.7	23.1	22.8
Total 15-64	20.0	32.1	35.8	44.4	31.5

	2004				
Age groups	Incomplete tertiary and tertiary	Vocational, secondary specialised	General basic	No primary, general primary	Total
15-19	100.0	80.0	69.1	48.3	65.9
20-24	48.6	64.8	53.9	61.4	55.1
25-29	28.0	33.0	39.7	4.2	32.7
30-34	27.8	35.7	35.4	16.7	32.3
35-39	22.9	37.7	22.5	17.2	26.3
40-44	19.2	29.7	26.1	15.6	25.0
45-49	18.6	34.6	28.6	14.7	27.4
50-54	20.8	33.6	30.2	20.0	27.7
55-59	18.6	30.1	33.3	21.4	26.4
60-64	7.7	18.8	25.0	10.3	16.0
Total, 15-64	25.2	36.2	35.7	24.8	32.3

ANNEX 3: EDUCATION SECTOR MEASURES LINKED WITH PRSP

Measures in the period 2004–06 aimed at ensuring the realisation of the Poverty Reduction Strategic Paper

(Approved by the Governmental Decree of 22 January 22 No100 of RA)

Related to VET

Priority: **Provision of quality education and increase of accessibility**

Policy cluster: *Modernisation of curricula and methodological material*

Measure	Expected result	Implementation period
181. Publication of textbooks on vocational education in native language	Increase the accessibility of education	2004–06

Policy cluster: *Upgrading the quality of VET curricula*

182. Development of a list of professions of middle vocational education	Upgrading the quality of vocational programmes and bringing them into line with the goals of socio-economic development of the country	2005
183. Organisation of training courses for staff of middle VET schools	Upgrading the quality of middle vocational education	2004–06
184. Development of state education standards for professions of middle vocational education	Upgrading the quality of middle vocational education	2004–06
185. Development of vocational education curricula and subject programmes	Upgrading the quality of middle vocational education	2004–06
186. Development of recommendations and mechanisms for reimbursing educational costs for students of middle and higher professional educational institutions	Provision of accessibility for middle and higher vocational education	2004
187. Improvement of training materials in middle VET institutions	Upgrading the quality of middle vocational education	2004–06
188. Basic repair of buildings of middle VET institutions and re-establishment of heating systems	Upgrading of education quality	2004–06
189. Definition and introduction of a most suitable internal structure for middle VET institutions	Raising the effectiveness/efficiency of middle vocational education	2004–06
190. Development of a strategic paper for middle and higher professional education	Raising educational quality and effectiveness	2004
191. Improvement of legislative framework of middle and higher professional education	Improvement of management system	2004–06

ANNEX 4: EDUCATION SECTOR LEGISLATION

	TITLE	Year of adoption
Laws of the RA		
1.	Law on Language	1993
2.	Law on Social Protection of the Disabled	1993
3.	Constitution of the RA	1995
4.	Law on Children's Rights	1996
5.	Law on Employment of Population	1996
6.	Civic Code	1998
7.	Law on Social Security of the Military and their Family Members	1998
8.	Law on Education	1999
9.	State Programme of Education Development (2001 – 2005)	2001
10.	Law on Licensing	2001
11.	Law on State Non-commercial Organisations	2001
12.	Law on Social Protection of Children without Parental Care	2002
13.	Labour Code	2005
14.	Law on Initial (Craftsmanship) and Middle Vocational Education	2005
Decisions of the government and the prime minister of the RA		
15.	'On determination of entry privileges for those enrolled in middle vocational state institutions of the RA'	1999
16.	'On approval of the lists of professions of middle and higher professional part-time education as well as professions being taught by curricula of a specialist with diploma'	2000
17.	'On approval of state-sample forms of graduation documents on education'	2000
18.	'On approval of procedures of licensing of educational activities in the RA as well as state accreditation of middle and higher professional education institutions and the professions they give'	2000
19.	'On approval of general state standards for higher and middle professional education'	2001
20.	'On approval of the programme of rationalisation of initial and middle vocational education system in the RA'	2001
21.	'On determination of official salaries and wages of budgetary educational institutions' (PM)	1999 2002
22.	'On procedure of continuation of education of middle VET institution graduates with good progress in a relevant higher education institution'	2002
23.	'On reorganisation of state middle professional educational institutions of RA and on approval of Exemplary Charter for state middle professional educational institutions'	2002
24.	'On amendments in RA Governmental Decree N 741 of August 10, 2001 and on providing building to Yerevan State Technological College and a part of building to Yerevan State Institute of Theatre and Cinema for use free of charge'	2002
25.	'On approval of lists of professions of middle professional education and on declaration of invalidity of RA Governmental Decree N 525 of August 25, 1999'	2002
26.	'On approval of the list of professions of initial vocational (craftsmanship) education'.	2003
27.	'On continuation of education of the Yerevan Olympic Reserve State Sport College's	2003

	graduates with good progress and sport mastery and on changes and amendments in the Decision of the Government N 589 of May 20, 2002'	
28.	'On liquidation of a number of state establishments (or their branches) which carry out medical vocational curricula and on establishment of state non-commercial organisations'	2003
29.	'On approval of the Poverty Reduction Strategic Programme'	2003
30.	'On approval of procedure for formation and approval of state educational standards for professions of vocational education'	2003
31.	'On approval of the list of 2004 – 2006 measures for implementation of the Poverty Reduction Strategic Programme'	2004
32.	'Strategy of the RA for initial and middle vocational education and training'	2004

ANNEX 5: QUALIFICATIONS EFFECTIVELY OFFERED IN PRIMARY AND SECONDARY VET ESTABLISHMENTS

	Code and title of profession	Primary VET	Secondary VET (College)
1	0102 Welding	x	x
2	0103 Machine tool works	x	
3	0201 Chemical production	x	x
4	0302 Radio-electronic and video-equipment production	x	x
5	0402 Painting	x	x
6	0404 Parquet work, carpentry	x	
7	0408 Sanitary equipment	x	
8	0501 Railway train repair	x	
9	0502 Railway train maintenance	x	
10	0503 Car transportation maintenance and repair	x	
11	0604 Sewing production	x	x
12	0702 Food service	x	
13	0703 Everyday service	x	x
14	0704 Art and jewellery items production and preparation	x	x
15	0804 Cattle breeding, food processing and maintenance	x	
16	0805 Agricultural (farm) work organisation	x	x
17	0806 Agricultural mechanisation	x	x
18	0809 Agricultural production accounting	x	x
19	0101 Hydrology		x
20	0201 Jurisprudence		x
21	0202 Law and organisation of social security		x
22	0205 Social work		x
23	0206 Publishing		x
24	0207 Interpreting and clerical work		x
25	0208 Interpreting and customs		x
26	0209 Interpreting and archives		x
27	0210 Interpreting and organisation of services		x
28	0301 Teaching of Armenian and foreign languages		x
29	0307 Physical training and sport		x
30	0308 Professional training (by branches)		x
31	0310 Musical education		x
32	0312 Teaching in elementary school		x
33	0313 Pre-school education		x
34	0314 Social pedagogy		x
35	0401 Medical treatment		x
36	0402 Obstetrics		x
37	0403 Medical prophylactics		x
38	0404 Medical optics		x
39	0405 Pharmaceuticals		x
40	0406 Nursing		x

41	0407	Laboratory diagnostics		x
42	0408	Laboratory activity		x
43	0415	Organisation of nursing		x
44	0416	Dental techniques		x
45	0501	Musical instrument performance		x
46	0502	Singing		x
47	0503	Chorus conducting		x
48	0504	Theory of music		x
49	0505	Musical variety art		x
50	0506	Choreographic art		x
51	0507	Acting art		x
52	0508	Circus art		x
53	0509	Movie and theatre direction (by branches)		x
54	0511	Variety art		x
55	0512	Painting		x
56	0513	Sculpture		x
57	0514	Design (by branches)		x
58	0515	Decorative applicative art and national crafts		x
59	0516	Restitution, conservation and storage of art works		x
60	0517	Library science		x
61	0518	Social-cultural activity and folklore		x
62	0601	Economics, book-keeping and audit (by branches)		x
63	0602	Management (by branches)		x
64	0603	Financing (by branches)		x
65	0604	Banking		x
66	0605	Statistics		x
67	0606	Insurance (by branches)		x
68	0607	Marketing (by branches)		x
69	0608	Commerce (by branches)		x
70	0612	Commodity research		x
71	0613	Land resource management		x
72	0801	Geological drawing and mineral area searching		x
73	0804	Mineral mine research		x
74	0810	Gemmology		x
75	0901	Mine survey		x
76	0902	Open exploitation of mines		x
77	0903	Underground exploitation of mines		x
78	0904	Ore concentration		x
79	0908	Mine and underground construction		x
80	1001	Electrical power stations, networks and systems		x
81	1002	Electrical wiring installation and operation		x
82	1004	Power supply (by branches)		x
83	1005	Thermo-power plants		x
84	1006	Heat supply and thermo-technical equipment		x

85	1007 Atomic and nuclear power stations		x
86	1201 Mechanical engineering technology		x
87	1202 Flying objects		x
88	1203 Aircraft engine production		x
89	1211 Machine-tool construction		x
90	1705 Technical service and maintenance of motor transport		x
91	1706 Crane transport, construction, road machinery and equipment operation and maintenance		x
92	1707 Technical operation, maintenance and service of rolling stock		x
93	1708 Technical service and maintenance of electronic technique production equipment		x
94	1710 Trade and public food enterprises equipment operation and maintenance		x
95	1715 Installation, technical service and maintenance of medical techniques		x
96	1716 Operation and service of machine tools		x
97	1803 Techniques and sources of light		x
98	1804 Operation of transport electro-equipment automated mechanisms		x
99	1805 Electro-technical equipment		x
100	1806 Technical operation, maintenance and service of electronic and electro-mechanical equipment		x
101	1901 Precision mechanical instruments		x
102	1902 Quality control and diagnosis instruments		x
103	1903 Aviation instruments and complexes		x
104	1905 Technical and medical apparatus and systems		x
105	1906 Orthopaedic production		x
106	2002 Electronic instruments and equipment		x
107	2003 Radio-instrument production		x
108	2004 Communication nets and communication systems		x
109	2005 Multi-channel telecommunication systems		x
110	2006 Radio-communication, radio-transmission and television		x
111	2009 Communication operation		x
112	2010 Technical exploitation of transport radio-electronic equipment (according to the types of transport)		x
113	2013 Audiovisual techniques and sound provision of audiovisual programmes		x
114	2014 Technical service and maintenance of radio-electronic equipment		x
115	2015 Postal communication		x
116	2019 Exploitation of film and video equipment		x
117	2020 Audio technique services		x
118	2102 Automatic transport control and technical service of electro-power systems		x

119	2103 Automation, tele-mechanics and control in transport (according to type of transport)		x
120	2104 Automatic control systems		x
121	2201 Computers, computing complexes, systems and nets		x
122	2202 Information processing automated control systems (by branches)		x
123	2203 Program provision of computer engineering techniques and automated systems		x
124	2204 Technical service of computer engineering techniques and computer nets		x
125	2301 Public consumer service organisation		x
126	2302 Service organisation in hotels and tourist complexes		x
127	2303 Dry-cleaning and dyeing of goods		x
128	2304 Hair-styling art and decorative cosmetology		x
129	2305 Photography		x
130	2306 Household management		x
131	2307 Tourism		x
132	2308 Publicity		x
133	2311 Organisation of public catering		x
134	2312 Decorative cosmetics and cosmetology art		x
135	2401 Organisation of transportation and traffic control (according to type of transport)		x
136	2402 Air-transport traffic management		x
137	2403 Operation of flying apparatus		x
138	2501 Chemical technology of organic materials		x
139	2502 Chemical technology of inorganic materials		x
140	2503 Electrochemical production		x
141	2509 Bio-chemical production		x
142	2511 Technology of high molecular and highly efficient compounds and instruments		x
143	2514 Analytic quality control of chemical compounds		x
144	2602 Timber treatment technology		x
145	2603 Timber retreatment technology		x
146	2604 Forestry and gardening		x
147	2605 Park and landscape construction		x
148	2701 Grain storage and retreatment technology		x
149	2702 Bread-baking, macaroni and pastry production		x
150	2703 Sugar product technology		x
151	2704 Fermentation production technology and wine-making		x
152	2706 Fats and fat substitutes technology		x
153	2707 Technology of tinned food and food-infecting materials		x
154	2708 Meat and meat product technology		x
155	2709 Fish and fish product technology		x
156	2710 Milk and dairy technology		x
157	2711 Food technology in public catering		x

158	2808 Clothes modelling and designing		x
159	2809 Clothing industry		x
160	2810 Leather and fur technology		x
161	2811 Leather goods production		x
162	2812 Fur goods production		x
163	2813 Paper and cardboard goods production		x
164	2814 Polygraph production		x
165	2815 Musical instrument production		x
166	2816 Toy modelling, designing and decorating		x
167	2817 Fur clothes modelling and designing		x
168	2818 Leather goods modelling and designing		x
169	2819 Consumer goods quality examination		x
170	2901 Construction and use of urban roads		x
171	2902 Railway construction, railway industry		x
172	2904 Hydro-technical construction		x
173	2905 Tunnel and underground (subway) construction		x
174	2906 Construction of bridges		x
175	2907 Production of non-metallic construction articles and constructions		x
176	2908 Construction of bridges		x
177	2909 Production of non-metallic construction articles and constructions		x
178	2910 Metal-construction making		x
179	2911 Installation of industrial equipment		x
180	2912 Water provision and drainage		x
181	2913 Installation, regulation and operation of electronic equipment in buildings		x
182	2914 Installation and operation of gas-providing equipment and systems		x
183	2915 Installation and operation of inner sanitary technical and ventilation systems		x
184	2916 Urban construction cadastre		x
185	2917 Mine construction		x
186	3101 Organisation of the use of land		x
187	3102 Agronomy		x
188	3103 Zoo techniques		x
189	3104 Veterinary science		x
190	3105 Bee keeping		x
191	3106 Agricultural mechanisation		x
192	3107 Agricultural electrification		x
193	3108 Plant-growing output storage and treatment		x
194	3109 Ichthyology and fish breeding		x
195	3110 Industrial fishing		x
196	3111 Hunting science and animal breeding		x
197	3112 Farming organisation		x

198	3113 Dog breeding		x
199	3201 Environmental protection and efficient utilisation of natural resources		x
200	3202 Melioration, land restoration and protection		x
201	3401 Metrology		x
202	3404 Standardisation and product quality control (by branches)		x
203	3405 Quality control of metals and welded joints		x
204	3406 Dose measuring and protection from radiation		x
205	3407 Quality control of construction production		x
206	3408 Quality control of construction articles and constructions		x

ANNEX 6: EDUCATION STANDARDS – REGULATION

PROCEDURE of formation and approval of state educational standards for professions of professional education

(Adopted by the Design of the Government of the RA by 8 August 2003, No 1079-N)

1. General provisions

1. This is to define the procedure of formation and approval of educational state standards for professions of professional education.
2. State educational standards for professions of vocational education (henceforth Standard) are being formulated and approved for every profession of professional education operative in the Republic of Armenia.
3. The Ministry of Education and Science defines the components for the standards.

2. Development of draft standard

4. The standards are formulated by professional boards (henceforth Board) and by their working groups established according to the procedure defined by the Ministry of Education and Science of the Republic of Armenia.
5. The Board of formation of state educational standards for professions of higher education is established according an order of the Minister of Education and Science of the Republic of Armenia.
6. The Board of formation of educational state standards for professions of initial and middle vocational education is established according to a joint order of the Minister of Education and Science of RA and the head of the relevant state governance bodies defined according professions by tables 1 and 2 of this procedure.
7. The Board consists of at least 11 members and includes civil servants responsible for development of the field, lead experts of the field and employers. The Board may also include representatives of scientific organisations, training institutions, stakeholders and interested organisations, other experts.
8. The Board forms professional working groups involving experts/specialists of the relevant qualification aimed at the development of draft components of a standard.
9. The Board formulates the draft standard on the basis of drafts developed by working groups and submits it to the approval of the Ministry of Education and Science of the Republic of Armenia.

3. Approval of the standard

10. The Minister of Education and Science of the Republic of Armenia approves the standard by an order within one month period of time or returns it for revision/amendments to the same or a newly established Board.

Components of State Educational Standards of Initial and Middle Vocational Education Professions

(Appendix 1 (2) of the order of the Minister of Education and Science of the RA, 13 May 2004 No 318)

1. A title page
2. General description of a profession (specialisation)
 - 2.1 Name of profession (specialisation)
 - 2.2 Forms of education (training) for the profession (specialisation)
 - 2.3 Utilisation time periods of a profession (specialisation) on the basis of secondary (complete) general and/or basic general education
 - 2.4 Qualification awarded to the graduates
 - 2.5 Description of qualification of the graduates
3. Further education possibilities and/or employment spheres of a graduate
4. Requirements for the preparation of a specialist
 - 4.1 General requirements
 - 4.2 Requirements for humanitarian, socioeconomic, mathematical and general science, general professional, and special professional subjects
 - 4.3 Requirements for practical training
 - 4.4 Requirements for final testing and certification of a profession (specialisation)
5. Requirements for the minimum volume of content of the main educational programme of a profession (specialisation) according to the groups of subjects and subjects with their maximum and the necessary teaching hours
6. Requirements for the organisation and provision of the training process
 - 6.1 General provisions
 - 6.2 Conditions for organisation of entry process
 - 6.3 Conditions for organisation of training process
 - provision of specialists and their compliance
 - training-methodological provision
 - material technical provision (list of cabinets, workshops, laboratories, etc.)
 - general normative acts for organisation of training process (curriculum)
 - 6.4 Requirements for organisation of practical training
 - 6.5 Requirements for mid-term and final testing
7. Academic freedom of training institutions in the formation and organisation of the content of the training process
8. A model curriculum for a profession

PLAN OF EDUCATIONAL PROCESS

	Title of the Subject	Testing by semesters				Subject hours				Distribution by years and semesters							
		Exams	Tests	Course papers	Test work	Total	Theoretical training	Laboratory	Practical instruction	I		II		III		IV	
										1	2	3	4	5	6	7	8
										18	21	15	17	13	14	18	10
1	GENERAL					1694	1387	75	232								
1.1	Armenian language	2				78	78			2	2						
1.2	Armenian literature		2d, 4d		4	142	142			2	2	2	2				
1.3	Russian language		2d, 3d		2	186	186			4	4	2					
1.4	Foreign language/English		2d, 4d		2	142	142			2	2	2	2				
1.5	History	2				117	117			3	3						
1.6	Armenian language and culture of speech					64	64					2	2				
1.7	Mathematics	2			4	276	276			6	8						
1.8	Physics	2			2	192	151	41		6	4						
1.9	Chemistry		2d		1	135	101	34		4	3						
1.10	Physical training (sports)		1,2,3,4,5,6,7,8			252	20		232	2	2	2	2	2	2	2	2
1.11	Initial military training		4d			110	110			2	2	1	1				
2	HUMANITARIAN AND SOCIOECONOMIC					162	162										
2.1	Fundamentals of politics		4d			34	34						2				
2.2	Fundamentals of law		4d			34	34						2				
2.3	Fundamentals of ecology		4d			30	30					2					
2.4	Fundamentals of engineering psychology		4d			34	34						2				
2.5	Fundamentals of ethics and aesthetics		4d			30	30					2					
3	PROFESSIONAL GENERAL					838	528	310									
3.1	Engineering drawing				3	154		154				4	4	2			
3.2	Informatics and computer applications	3	4			94	42	52				4	2				
3.3	Technical mechanics	4			4	190	160	30				7	5				
3.4	General electrical engineering with principles of electronics	4			2	98	64	34				2	4				
3.5	Metals technology	6			2	134	124	10						6	4		
3.6	Principles of standardisation and technical		5d		1	65	55	10						5			

	measurement																
3.7	Work safety and environmental protection	5			1	52	42	10					4				
3.8	Technological equipment		4d		1	51	41	10				3					
4	PROFESSIONAL SPECIAL					<i>1189</i>	<i>869</i>	<i>288</i>	<i>32</i>								
4.1	Vehicle structure	6	7d		2	206	134	72					6	4	4		
4.2	Theory of vehicles and engines	6	7d		1	156	140	16						6	4		
4.3	Vehicle exploitation materials	5			1	65	47	18					5				
4.4	Vehicle electrical equipment				2	84	56	28						6			
4.5	Technical service of vehicles and engines	7	6d		2	194	156	38						6	5	4	
4.6	Repair of vehicles and engines	7,8		8	2	148	88	40	20						6	4	
4.7	Cargo transportation		8d		1	50	40	10									5
4.8	Passenger transportation				2	50	50	0									5
4.9	Rules of safe traffic	8			2	120	78	42						2	4	2	
4.10	Economics	8		8	2	116	80	24	12						2	8	
5	OPTIONAL																
5.1	Practical driving					74			74							3	2
	TOTAL					3957	2946	673	338	33	32	32	33	30	30	30	30
	Consultancy hours					200											
	Reserve					498											

ANNEX 8: DETAILED DATA ON VET SCHOOLS IN ARMENIA

No	NAME	GOVERNING BODY	PROFESSIONS	NO OF STUDENTS	NO ENROLLED IN 2005
YEREVAN, population – 1,102,900 people; territory – 227 sq. km.⁸⁷					
1	Yerevan State Industrial College	MoES	0601 Economics, book-keeping and audit 1705 Technical service and maintenance of motor transport 1706 Crane transport, construction, road machinery and equipment operation and maintenance 1715 Installation, technical service and maintenance of medical techniques 2004 Communication nets and communication systems 2014 Technical device and maintenance of radio-electronic equipment 2015 Postal communication 2401 Organisation of transportation and traffic control (according to type of transport)	418	151
2	Yerevan State Electro-technical College	MoES	0601 Economics, book-keeping and audit 0607 Marketing 0201 Jurisprudence 1004 Power supply 1803 Techniques and sources of light	149	41
3	Yerevan State College of Informatics	MoES	2201 Computers, computing complexes, systems and nets 2203 Program provision of computer engineering techniques and automated systems	1361	498

⁸⁷ The source of all data on the population and territory of Marzes is 'Armenia in Figures 2005', Chapter 15: Brief Social and Economical Characteristics of Marzes of RA, National Statistical Service, 2005. Available at http://www.armstat.am/Arm/Publications/2005/arm_05/arm_05_15.pdf

4	Yerevan State Technological College	MoES	2312 Decorative cosmetics and cosmetology art 2501 Chemical technology of organic materials 2509 Bio-chemical production 2514 Analytic quality control of chemical compounds 3201 Environmental protection and efficient utilisation of natural resources 3404 Standardisation and product quality control (by branches) 0201 Chemical production 0703 Everyday service	181	24 20* ⁸⁸
5	Yerevan State College of Light Industry	MoES	0601 Economics, book-keeping and audit 2301 Public consumer service organisation 2808 Clothes modelling and designing 2809 Clothing industry 2819 Consumer goods quality examination	566	243
6	Yerevan State College of Food Industry	MoES	2509 Bio-chemical production 2702 Bread-baking, macaroni and pastry production 2710 Milk and dairy technology 2711 Food technology in public catering	361	138
7	Yerevan State Construction College	MoES	0601 Economics, book-keeping and audit 0602 Management 1706 Crane transport, construction, road machinery and equipment operation and maintenance 2902 Construction and use of houses and buildings 2915 Installation and operation of inner sanitary-technical and ventilation systems	113	57
8	Yerevan Financial-Banking College	MoES	0603 Financing 0604 Banking	55	25
9	Yerevan State Financial-Economics College	MoES	0201 Jurisprudence 0601 Economics, book-keeping and audit 0602 Management 0603 Financing 0604 Banking	230	234

⁸⁸ Number of students and entrants to preliminary vocational education are marked by **

10	Yerevan State College of Trade and Services	MoES	0201 Jurisprudence 0601 Economics, book-keeping and audit 0602 Management 0607 Marketing 0608 Commerce 0612 Commodity research 2302 Service organisation in hotels and tourist complexes	422	247
11	Yerevan State Humanitarian-Technical College	MoES	0201 Jurisprudence 0308 Professional training 0515 Decorative applicative art and national crafts 2304 Hair-styling art and decorative cosmetology 2808 Clothes modelling and designing 2809 Clothing industry 0702 Food service 0704 Everyday service	328	156 25*
12	Yerevan State Pedagogical College	MoES	0201 Jurisprudence 0312 Teaching in elementary school 0313 Pre-school education	485	135
13	Yerevan State Humanitarian College	MoES	0207 Interpreting and clerical work 0208 Interpreting and customs 0209 Interpreting and archives 0210 Interpreting and organisation of services 0301 Teaching of Armenian and foreign languages 0310 Musical education 0515 Decorative applicative art and national crafts 0313 Pre-school education	690	220
14	Yerevan State Musical College	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting 0504 Theory of music	391	114
15	Yerevan State Musical-Pedagogical College	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting 0504 Theory of music	305	80
16	Yerevan State College of Arts	MoES	0512 Painting 0513 Sculpture 0514 Design 0515 Decorative applicative art and national crafts	544	155

17	Pedagogical College of the M. Sebastatsy Education Complex	MoES	0307 Physical training and sport 0312 Teaching in elementary school 0313 Pre-school education 0310 Musical education 0515 Decorative applicative art and national crafts 0302 Radio-electronic and video-equipment production 0402 Painting 0604 Sewing production 0702 Food service 0703 Everyday service 0704 Art and jewellery items production and preparation 0705 Office works organisation	60 90*	39 44*
18	College of the Armenian State Engineering University	MoES	1806 Technical operation, maintenance and service of electronic and electro-mechanical equipment 2014 Technical service and maintenance of radio-electronic equipment 2201 Computers, computing complexes, systems and nets 2303 Dry-cleaning and dyeing of goods 2814 Polygraph production	~150	23
19	College of the Armenian Agricultural Academy	MoES	0601 Economics, book-keeping and audit 0602 Management 0603 Financing 2401 Organisation of transportation and traffic control	97	35
20	College of the Yerevan State Medical University	MoES	0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	120	39

21	Yerevan State Agricultural College	MoA	3101 Organisation of the use of land 3202 Melioration, land restoration and protection 0601 Economics, book-keeping and audit 2401 Organisation of transportation and traffic control 0612 Commodity research 0202 Law and organisation of social security 0602 Management 0603 Financing 2819 Consumer goods quality examination	377	82
22	Yerevan State Basic Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	n.a. ⁸⁹	n.a. ⁹⁰
23	Yerevan State Medical College – Erebuni	MoH	0402 Obstetrics 0406 Nursing 0407 Laboratory diagnostics 0405 Pharmaceutics 0415 Organisation of nursing 0416 Dental techniques	n.a.	n.a.
24	Yerevan State College of Culture	MoCYA	0502 Singing 0509 Movie and theatre direction 0514 Design 0516 Restitution, conservation and storage of art works 0518 Social-cultural activity and folklore 0601 Economics, book-keeping and audit 2019 Exploitation of film and video equipment 2307 Tourism	219	81
25	Yerevan State College of Dancing Art	MoCYA	0506 Choreographic art 0509 Movie and theatre direction 0511 Variety art	259	49
26	Yerevan State College of Variety Art and Jazz	MoCYA	0511 Variety art	n.a.	n.a.
27	Yerevan State Sports College for Olympic Reserves	SCoPCS	0307 Physical training and sport	460	184
28	Yerevan State Craft College No 1	MoES	0503 Car transportation maintenance and repair 0703 Everyday service	130*	70*

⁸⁹ The aggregate number of students for all medical colleges under the Ministry of Healthcare is 6,546.

⁹⁰ The aggregate number of students who enrolled in all medical colleges under the Ministry of Healthcare in 2005 is 2,703.

29	Yerevan State Craft College No 2	MoES	0703 Everyday service 0704 Art and jewellery items production and preparation	101*	60*
30	Yerevan State Craft College No 3	MoES	0102 Welding 0503 Car transportation maintenance and repair 0703 Everyday service	140*	80*
31	Yerevan State Craft College No 4	M	0302 Radio-electronic and video-equipment production 0702 Food service 0703 Everyday service	95*	55*
32	Yerevan State Craft College No 5	M	0704 Art and jewellery items production and preparation	100*	60*
33	Yerevan State Craft College No 6	MoES	0404 Parquet work, carpentry 0503 Car transportation maintenance and repair 0604 Sewing production 0702 Food service 0703 Everyday service	210*	115*
34	Yerevan State Craft College No 7	M	0605 Polygraph production 0705 Office works organisation	120*	60*
35	Yerevan State Craft College No 8	MoES	0503 Car transportation maintenance and repair 0704 Art and jewellery items production and preparation	60*	20*
36	Yerevan State Craft College No 9	M	0503 Car transportation maintenance and repair 0702 Food service 0703 Everyday service	145*	85*
37	Yerevan State Craft College No 10	M	0502 Railway train maintenance 0703 Everyday service	70*	30*
38	Medical College of the Yerevan University of Economics and Law	P	0405 Pharmaceutics 0402 Obstetrics 0416 Dental techniques	n.a.	n.a.
39	Medical College – Sargsyan	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
40	Medical College – Hippocrat	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
41	Medical College – Mehrabyan	P	0402 Obstetrics 0405 Pharmaceutics 0416 Dental techniques 2304 Hair-styling art and decorative cosmetology	n.a.	n.a.
42	Specialised Medical College	P	0402 Obstetrics 0406 Nursing	n.a.	n.a.

43	Medical College of Emergency	P	0401 Medical treatment 0402 Obstetrics 0404 Medical optics 0405 Pharmaceutics 0406 Nursing 0408 Laboratory activity	n.a.	n.a.
44	Medical College – Akunts	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
45	Medical College – St. Teresa	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
46	College of the Haybusak University	P	0601 Economics, book-keeping and audit 0402 Obstetrics 0406 Nursing 0416 Dental techniques 0208 Interpreting and customs	n.a.	n.a.
47	College of the Yerevan Management and Information Technology University	P	2203 Program provision of computer engineering techniques and automated systems	n.a.	n.a.
48	College of Gladzor Management University	P	2202 Information processing automated control systems	n.a.	n.a.
49	Design Atex College	P	0514 Design	n.a.	n.a.
50	Seylan College	P	0312 Teaching in elementary school 0601 Economics, book-keeping and audit	n.a.	n.a.
51	Art College – Naghash Hovnatan	P	0512 Painting 0515 Decorative applicative art and national crafts 0501 Musical instrument performance 0502 Singing 0506 Choreographic art	n.a.	n.a.
52	Aviation Training Centre	P	2403 Flying operation of flying apparatus 2402 Air-transport traffic management 2401 Organisation of transportation and traffic control	n.a.	n.a.
53	National Academy of Beautiful Art	P	0514 Design	n.a.	n.a.
54	College of FMB Academy of Finance	P	0601 Economics, book-keeping and audit	n.a.	n.a.

SHIRAK marz, population – 281,700 people; territory – 2,681 sq. km.; main centre – Gyumri					
55	Gyumri State Engineering College	MoES	0201 Jurisprudence 0601 Economics, book-keeping and audit 0602 Management 0604 Banking 2203 Program provision of computer engineering techniques and automated systems 0302 Radio-electronic and video-equipment production	250 25*	85 20*
56	Gyumri State Technical College	MoES	0601 Economics, book-keeping and audit 2103 Automation, tele-mechanics and control in transport (according to type of transport) 2401 Organisation of transportation and traffic control 2902 Construction and use of houses and buildings	235	91
57	Gyumri State Pedagogical College	MoES	0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0313 Pre-school education 2301 Public consumer service organisation 2302 Service organisation in hotels and tourist complexes	459	148
58	Gyumri State Musical College	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting 0504 Theory of music	47	12
i	Gyumri branch of the Armenian State Engineering University	MoES	2808 Clothes modelling and designing 0601 Economics, book-keeping and audit 2201 Computers, computing complexes, systems and nets 2915 Installation and operation of inner sanitary-technical and ventilation systems	100	35
59	Shirak State Agricultural College (Gyumri)	MoA	3102 Agronomy 2708 Meat and meat products technology 0601 Economics, book-keeping and audit 2401 Organisation of transportation and traffic control 0612 Commodity research 0202 Law and organisation of social security 0602 Management 2819 Consumer goods quality examination	328	80
60	Gyumri State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics	830	n.a.

61	Gyumri State Sports College for Olympic Reserves	SCoPCS	0307 Physical training and sport	n.a.	n.a.
62	Gyumri State Craft College No 1	MoES	0301 Electrical-technical and electronic equipment production 0404 Parquet work, carpentry 0702 Food service 0703 Everyday service	225*	123*
63	Gyumri State Craft College No 2	MoES	0302 Radio-electronic and video-equipment production 0501 Railway train repair 0703 Everyday service 0702 Food service	160*	97*
64	Gyumri State Craft College No 3	M	0703 Everyday service 0704 Art and jewellery items production and preparation	100*	60
65	Artik State College	MoES	0201 Jurisprudence 0307 Physical training and sport 0312 Teaching in elementary school 0313 Pre-school education 0601 Economics, book-keeping and audit 2401 Organisation of transportation and traffic control	314	122
66	Maralik State Craft College	M	0801 Agricultural (farm) works organisation 0704 Art and jewellery items production and preparation 0503 Car transportation maintenance and repair 0808 Veterinary science and cattle breeding	200*	100*
1	College of Gyumri Progress University	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques 0405 Pharmaceutics	n.a.	n.a.
2	Artik Special Medical College	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.

LORI marz, population – 283,9000 people; territory – 3,789 sq. km.; main centre – Vanadzor					
67	Vanadzor State Polytechnic College	MoES	0312 Teaching in elementary school 0313 Pre-school education 0601 Economics, book-keeping and audit 0207 Interpreting and clerical work 0704 Art and jewellery items production and preparation	346 20*	95 20*
68	Vanadzor State Technological College	MoES	0602 Management 0607 Marketing 2808 Clothes modelling and designing 2809 Clothing industry	236	113
69	Vanadzor State Musical College	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting 0504 Theory of music	112	29
70	Vanadzor State Agricultural College	MoA	3102 Agronomy 2604 Forestry and gardening 0202 Law and organisation of social security 0603 Financing 0602 Management 0601 Economics, book-keeping and audit 2906 Hydro-technical construction 2902 Construction and use of houses and buildings 0607 Marketing 0612 Commodity research 3201 Environmental protection and efficient utilisation of natural resources 2401 Organisation of transportation and traffic control 2605 Park and landscape construction 2710 Milk and dairy technology	442	95
71	Vanadzor State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	n.a.	n.a.
72	Vanadzor Central Medical College	P	0402 Obstetrics 0416 Dental techniques 2304 Hair-styling art and decorative cosmetology	n.a.	n.a.

73	College of Vanadzor – Mkhitar Gosh Armenian-Russian University	P	0201 Jurisprudence 0404 Medical optics 0406 Nursing	n.a.	n.a.
74	Spitak State College	MoES	0301 Teaching of Armenian and foreign languages 0307 Physical training and sport 0312 Teaching in elementary school 0601 Economics, book-keeping and audit 2203 Automation, tele-mechanics and control in transport 2401 Organisation of transportation and traffic control 0703 Everyday service	96 50*	28 37*
75	Alaverdi State College	MoES	0312 Teaching in elementary school 0601 Economics, book-keeping and audit 1103 Ferrous and non-ferrous metal moulding production	178 40*	70 20*
76	Stepanavan State Agricultural College	MoA	3104 Veterinary science 0601 Economics, book-keeping and audit 2401 Organisation of transportation and traffic control 0612 Commodity research 0602 Management 2710 Milk and dairy technology	289	61
GEGHARKUNIK marz, population – 239,100 people; territory – 5,348 sq. km.; main centre – Gavar					
77	Gavar State Industrial-Pedagogical College	MoES	0201 Jurisprudence 0301 Teaching of Armenian and foreign languages 0601 Economics, book-keeping and audit 2203 Dry-cleaning and dyeing of goods 0806 Agricultural mechanisation 0703 Everyday service	200 40*	17 40*
78	Gavar State Musical College	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting	58	14
79	Gavar State Agricultural College	MoA	3104 Veterinary science 0601 Economics, book-keeping and audit 0603 Financing 2401 Organisation of transportation and traffic control 0612 Commodity research 0602 Management 0202 Law and organisation of social security 2710 Milk and dairy technology	332	69

80	Gavar State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	130	n.a.
81	Sevan State College	MoES	0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0601 Economics, book-keeping and audit 0604 Banking 2203 Program provision of computer engineering techniques and automated systems 2302 Service organisation in hotels and tourist complexes 2401 Organisation of transportation and traffic control	471	164
82	Sevan State Craft College	M	0503 Car transportation maintenance and repair 0702 Food service	120*	60*
83	Sevan Medical College	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques		
84	Martuni State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	n.a.	n.a.
85	Martuni State College	MoES	0201 Jurisprudence 0207 Interpreting and clerical work 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school	297	132
86	Martuni State Crafts College	MoES	0402 Painting 0702 Food service 0806 Agricultural mechanisation 0807 Agricultural electrification and autoimmunisation 0808 Veterinary science and cattle breeding	270*	147*
87	Vardenis State College	MoES	0201 Jurisprudence 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school	384 40*	104 20*

SYUNIK marz, population – 153,000 people; territory – 4,506 sq. km.; main centre – Kapan					
88	Kapan State Engineering College	MoES	0201 Jurisprudence 0312 Teaching in elementary school 0601 Economics, book-keeping and audit 0602 Management 0801 Geological drawing and minerals area searching 2401 Organisation of transportation and traffic control 2201 Computers, computing complexes, systems and nets 0402 Painting 0503 Car transportation maintenance and repair 0504 Communications	524 100*	107 51*
89	Kapan State Musical College	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting 0504 Theory of music 0505 Musical variety art 0512 Painting 0514 Design	93	30
90	Kapan State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	n.a.	n.a.
91	Kapan Movses Syuneci College	P	2201 Computers, computing complexes, systems and nets	n.a.	n.a.
92	Goris State Pedagogical College	MoES	0307 Physical training and sport 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0313 Pre-school education 2203 Program provision of computer engineering techniques and automated systems	222 20*	90 20*
93	Goris State Agricultural College	MoA	3106 Agricultural mechanisation 3105 Bee-keeping 0612 Commodity research 0601 Economics, book-keeping and audit 2401 Organisation of transportation and traffic control 0602 Management 0806 Geology and research of gasfields and oilfields 2604 Forestry and gardening	159	40

94	Sisian State Humanitarian College	MoES	0201 Jurisprudence 0208 Interpreting and Customs 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0515 Decorative applicative art and national crafts	154	64
95	Sisian State Economical College	MoES	0406 Nursing 0601 Economics, book-keeping and audit 0603 Financing 2401 Organisation of transportation and traffic control 0806 Geology and research of gasfields and oilfields 3112 Farming organisation	216	107
96	Meghri State College	MoES	0312 Farming organisation 0601 Economics, book-keeping and audit	64	41
97	Kajaran State Craft College	MoES	0102 Welding 0503 Car transportation maintenance and repair 0702 Food service	40*	40*
TAVUSH marz, population – 134,400 people; territory – 2,704 sq. km.; main centre – Ijevan					
98	Ijevan State College	MoES	0201 Jurisprudence 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0601 Economics, book-keeping and audit 0603 Financing 2401 Organisation of transportation and traffic control	632	194
99	Ijevan Eastern College of Management	P	0601 Economics, book-keeping and audit (by branches) 0201 Jurisprudence 0307 Physical training and sport	n.a.	n.a.
100	Dilijan State College	MoES	0201 Jurisprudence 0301 Teaching of Armenian and foreign languages 0307 Physical training and sport 0601 Economics, book-keeping and audit 2203 Program provision of computer engineering techniques and automated systems 2808 Clothes modelling and designing 0503 Car transportation maintenance and repair 0702 Food service	340 80*	86 57*
101	Dilijan State College of Arts	MoES	0501 Musical instrument performance	46	11

102	Dilijan State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	140	n.a.
103	Berd State College	MoES	0312 Teaching in elementary school 0602 Management	173	69
104	Berd State Craft College	M	0702 Food service 0503 Car transportation maintenance and repair	80*	40*
105	Noyemberyan State College	MoES	0312 Teaching in elementary school 2401 Organisation of transportation and traffic control 2808 Clothes modelling and designing 0601 Economics, book-keeping and audit 0102 Welding 0503 Car transportation maintenance and repair	160	80 40*
ARMAVIR marz, population – 278,200 people; territory – 1,242 sq. km.; main centre – Armavir					
106	Armavir State Industrial-Pedagogical College	MoES	0201 Jurisprudence 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0313 Pre-school education 0601 Economics, book-keeping and audit	462	150
107	Armavir State College of Arts	MoES	0501 Musical instrument performance 0502 Singing 0503 Chorus conducting 0512 Painting	121	32
108	Armavir State Agricultural College	MoA	3112 Farming organisation 0603 Financing 0612 Commodity research 2401 Organisation of transportation and traffic control 0202 Law and organisation of social security 3102 Agronomy 0601 Economics, book-keeping and audit 0602 Management 2704 Fermentation production technology and wine-making 3108 Plant-growing output storage and treatment	601	181
109	Armavir State Medical College	MoH	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.

110	Armavir Medical College	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
111	Echmiatsin State College	MoES	0301 Teaching of Armenian and foreign languages 0307 Physical training and sport 0310 Musical education 0312 Teaching in elementary school 0517 Library science 0509 Movie and theatre direction 0601 Economics, book-keeping and audit	484	147
112	Echmiatsin State Craft College	M	0503 Car transportation maintenance and repair 0701 Trade service	80*	40*
113	Echmiatsin Medical College	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
114	Echmiatsin Grigor Lusavorich Medical College	P	0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.
KOTAYK marz, population – 274,200 people; territory – 2,089 sq. km.; main centre – Hrazdan					
115	Hrazdan State College	MoES	2203 Program provision of computer engineering techniques and automated systems 2302 Service organisation in hotels and tourist complexes	431	160
116	Hrazdan State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	120	n.a.
117	Hrazdan State Craft College	MoES	0503 Car transportation maintenance and repair 0302 Radio-electronic and video-equipment production	90*	45*
118	Abovyan State Engineering College	MoES	0201 Jurisprudence 0312 Teaching in elementary school 0601 Economics, book-keeping and audit 1705 Technical service and maintenance of motor transport 2203 Program provision of computer engineering techniques and automated systems 2401 Organisation of transportation and traffic control 2905 Construction and use of roads and airports	162	59

119	Abovyan State Energy College	MoE	1001 Electrical power stations and networks and systems 2102 Automatic transport control and technical service of electro-power systems 3401 Metrology 2203 Program provision of computer engineering techniques and automated systems 0604 Banking 0601 Economics, book-keeping and audit 0201 Jurisprudence	254	112
120	Abovyan State Craft College No 1	M	0102 Welding 0404 Parquet work, carpentry 0503 Car transportation maintenance and repair 0702 Food service	120*	54*
121	Abovyan Special Craft College	MoE	0301 Electrical-technical and electronic equipment production 0503 Car transportation maintenance and repair	80*	43*
122	Abovyan Hovik Centre	P	0312 Teaching in Elementary School 0201 Jurisprudence 0601 Economics, Book-keeping and Audit	n.a.	n.a.
123	Charentsavan State College	MoES	0307 Physical training and sport 0312 Teaching in elementary school 0601 Economics, book-keeping and audit 0503 Car transportation maintenance and repair	111 100*	100 60*
124	Nor-Geghi State Agricultural College	MoA	3106 Agricultural mechanisation 2401 Organisation of transportation and traffic control 0603 Financing 0202 Law and organisation of social security 0612 Commodity research 2604 Forestry and gardening 0602 Management	559	63
125	Byureghavan State Craft College	M	0503 Car transportation maintenance and repair 0702 Food service	80*	40*
126	Nairi State Craft College	MoES	0503 Car transportation maintenance and repair 0703 Everyday service 0805 Agricultural (farm) works organisation	160*	99*

ARARAT marz, population – 273,400 people; territory – 2,096 sq. km.; main centre – Artashat					
127	Ararat State College	MoES	0201 Jurisprudence 0207 Interpreting and clerical work 0301 Teaching of Armenian and foreign languages 0312 Teaching in elementary school 0313 Pre-school education 0601 Economics, book-keeping and audit 2301 Public consumer service organisation 0701 Trade service	385	134 24*
128	Ararat State Medical College	MoH	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics 0416 Dental techniques	n.a.	n.a.
129	Artashat State College	MoES	0301 Teaching of Armenian and foreign languages 0405 Pharmaceutics 0416 Dental techniques 0601 Economics, book-keeping and audit 2312 Decorative cosmetics and cosmetology art 2401 Organisation of transportation and traffic control 0503 Car transportation maintenance and repair 0703 Everyday service	338 40*	158 40*
130	Masis State Agricultural College	MoA	0612 Commodity research 3112 Farming organisation 2401 Organisation of transportation and traffic control 0602 Management 0601 Economics, book-keeping and audit 2707 Technology of tinned food and food-infecting materials 0806 Geology and research of gasfields and oilfields 2710 Milk and dairy technology 3106 Agricultural mechanisation 3112 Farming organisation	384	57
131	Artashat Medical College	P	0402 Obstetrics 0406 Nursing 0405 Pharmaceutics	n.a.	n.a.
132	Vedi Law and Economics College	P	0201 Jurisprudence 0601 Economics, book-keeping and audit (by branches)	n.a.	n.a.

VAYOTS DZOR marz, population – 55,900 people; territory – 2,308 sq. km.; main centre – Eghegnadzor					
133	Eghegnadzor State College	MoES	0201 Jurisprudence 0301 Teaching of Armenian and foreign languages 0601 Economics, book-keeping and audit 0603 Financing 0604 Banking 2201 Computers, computing complexes, systems and nets 0704 Art and jewellery items production and preparation 0705 Office works organisation 0801 Wine-making and juice production	288 60*	140 60*
134	Eghegnadzor Medical College	P	0402 Obstetrics 0406 Nursing	n.a.	n.a.
135	Vayk Medical College	P	0402 Obstetrics 0406 Nursing	n.a.	n.a.
ARAGATSOTN marz, population – 139,100 people; territory – 2,753 sq. km.; main centre – Ashtarak					
136	Ashtarak State Craft College	MoES	0302 Radio-electronic and video-equipment production 0503 Car transportation maintenance and repair 0702 Food service	120*	59*
137	Talin State Craft College	M	0604 Sewing production 0701 Trade service 0809 Agricultural production accounting	155*	85*
138	Aragats State Craft College	M	0102 Welding 0401 Construction assembler	140*	80*
139	Talin Specialised Medical College		0402 Obstetrics 0406 Nursing 0416 Dental techniques	n.a.	n.a.

MoES Ministry of Education and Science
MoA Ministry of Agriculture
MoH Ministry of Healthcare
MoCYA Ministry of Culture and Youth Affairs
MoE Ministry of Energy
SCoPCS State Committee for Physical Culture and Sports under the RA Government
M Marzpetaran of the given marz or Yerevan Municipality (City Hall)
P Private

ACRONYMS

AMD	Armenian dram (national currency)
CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECA	Europe and Central Asia
ENP	European Neighbourhood Policy
ENPI	European Neighbourhood and Partnership Instrument
EU	European Union
FDI	Foreign direct investment
GDP	Gross domestic product
GoRA	Government of Republic of Armenia
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HR	Human resources
HRD	Human resources development
IFC	International Finance Corporation
IIZ-DVV	Institute for International Cooperation of the German Adult Education Association
ILO	International Labour Office
IMF	International Monetary Fund
LFS	Labour Force Survey
MoED	Ministry of Economic Development
MoES	Ministry of Education and Science
MoLSI	Ministry of Labour and Social Issues
MTEF	Medium Term Expenditures Framework
NCVETD	National Centre for VET Development
NSS	National Statistical Service
PRGF	Poverty Reduction Growth Facility
PRSP	Poverty Reduction Strategy Paper
RA	Republic of Armenia
SEA	State Employment Agency
Tacis	Technical Assistance to CIS (EU)
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USD	United States Dollar
VET	Vocational Education and Training
WTO	World Trade Organisation

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