Youth Transitions in the South Caucasus: Connections between employment, housing and family

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Introduction

Armenia, Azerbaijan and Georgia occupy a corner at the far periphery of Europe. For centuries this has been a contested area, sandwiched between Russia, Turkey and Iran. The recent history of the region begins with the break up of the Soviet Union and the subsequent socio-economic upheavals. These are therefore the most far-flung European transition countries. Of interest are the experiences of the young people who grew up during the transition from Soviet control to national independence. These young people witnessed the dying days of an empire and the turbulence which followed. Now at an age when one would expect maturing careers and families, this cohort are a bridge between memories of the old system and the lived experiences of young people today growing up under post-soviet administrations. This transition generation are modern day pioneers in the sense that they have not had the trajectories of their parents to look to in thinking about their own futures. Describing youth transitions as individualized, insecure, fractured, broken, risky has become routine in Western European countries. In the South Caucasus, these words have a particular resonance given the scale of changes of the past two decades and their particular problems which result from the complex political geography of the area. We are only now beginning to understand the contemporary socio-economic context of life in the South Caucasus through representative sample surveys (the Data Initiative (DI) surveys of 2004, 2005, 2006). These surveys show that there are regional variations both between and within countries in regard to education, employment, migration and social and political attitudes. This paper examines the experiences which have resulted in contemporary social 'destinations'. The DI surveys tell us that young people are now more likely to complete education but are also likely to experience significant bouts of unemployment – it is not yet clear who the real winners and losers are. Seasonal, employment related migration appears to be increasing and the length of time spent abroad also appears to be lengthening – the effects of this on family formation and having children are not yet known. Informed by a belief that one can best understand social processes which develop through time using a range of related longitudinal measures we have undertaken a survey of this transition generation with

a view to describing and understanding their lives. A sub-sample of young people from the DI 2005, those born between 1970 and 1976, were surveyed in early 2007. The focus has been to collect detailed data on employment, education, housing, family and leisure histories. This allows us to examine interconnections between each of these ongoing processes. We will therefore be able to answer questions raised by the findings from the DI surveys.

This paper reports on progress so far on an ongoing project titled Youth Transitions and their Family-Household Contexts in the South Caucasus. This INTAS funded project (ref. 05-1000008-7803) builds upon a growing body of related longitudinal household survey data in this region. The Data Initiative surveys began in 2004 and have been carried out annually since that time. In 2005 six regions were surveyed, each of the capitals plus one region within each country. Our survey - the South Caucasus Life History survey (SCLH) - complements the DI 2005 in that we have used the same sample lists and have returned to the households in order to question respondents born between 1970 and 1976 about their life-histories since the age of 16. From past work and the DI surveys we already know many of the issues in regard to growing up in this region, but these are posed as questions which our survey will answer once the data are available. At the time of writing (June 2007) the main questionnaire fieldwork and data entry have been completed, analytic data files have been produced, checking and testing is almost finished and the full analysis will be underway imminently.

Transitions: the contemporary discourse

Studying the transition from youth to adulthood has long been a mainstay of social science with specialists focusing upon employment, housing, relationships and family and leisure. This work has always had a comparative /longitudinal dimension, seeking to identify (i) the social factors which associate with transition types and (ii) change over time in transitional experiences. Over the past fifteen years the discourse on transitions has often focused upon theories relating to risk and individualization. There is debate over how far risk is simply a convenient theoretical tool with which to understand phenomena which have always existed, or the extent to which there has been an increase in the hazards of social life. From a statistical perspective, 'risk' can be understood as equivalent to probability or propensity. For example, all single

people are technically ‘at risk’ of getting married which is simply to say that there is a probability which can be calculated on the basis of survey evidence that single people marry. On the other hand within a national perspective, an analysis over time can be used to point to step-changes in experiences that such notions of risk equate to a change in the propensity for something to happen. For example, with the expansion in numbers of young people entering higher education in the past ten years in the UK one can say that the propensity (or risk) of a young person being in higher education has increased. Risk, then, need not always be seen in negative terms; it can be a convenient way of summarising the effects of structural constraint and individual agency. In other words risk can be regarded as the social context of opportunities. Nonetheless, much work on social problems has used a risk framework and there is perhaps a tendency to assume that young people now are worse off than they were at some point in the past. Hence we increasingly hear of all the ways in which transitions have become problematic: extended, fractured, blocked, ‘yo-yo’ and so forth (Biggart and Walther 2006, Bradley and van Hoof 2004). These descriptions may make sense within a limited (national or regional) context but they will not work so well in a comparative analysis where local contexts are very different. The transition to post-communism is such a context. The level of change and upheaval in post-communist societies far outweighs the relative stabilities of the countries where these ‘problem transition’ theories have emerged. The extent to which an education/employment or family/housing transition might be extended (or otherwise affected) as a result of the institutional ‘shock therapy’ of introducing the free market is, perhaps, far greater than in countries where there has not been equivalent political and economic changes.

The social context of employment transitions

Underpinning our work in the South Caucasus, but also informed by our work more generally, is a belief that the different spheres of life associate with one another sometimes in a determining relationship. In other words in order to understand a social ‘outcome’ at any point in time one needs to be aware of the prior context in related spheres. Here an outcome is a status on a range of variables. Employment status is typically related to prior employment experiences, the possession of qualifications and one’s parental background. Yet employment status is not static. One’s employment status varies over the life-course and it is of importance to be able

to classify different types of employment trajectory and to be able to work out reasons why people have different life experiences. The classification of careers in this way has been a long-standing feature of youth research and has shown the importance of social background, educational level and local labour markets (Ashton and Field 1976, Bynner and Roberts 1991, Banks *et al* 1992). With longitudinal data one can interrogate the reasons why trajectories unfold the way they do in greater depth. Firstly, we can construct trajectories which include all employment experiences over a given time period (16 to 30 in this survey). We are thus able to contrast those who have continuous employment with those who have had periods of unemployment, those who have dropped out of the labour market due to having children and so forth. We can also contrast those who have upwards trajectories in relation to the type of work being done with those whose trajectories are stable or declining. Our data allows us to map out social mobility in a truly longitudinal way. Secondly, it is possible to link employment events (getting a job, becoming unemployed and so forth) with other events such as moving house, getting married and having children. This means an event based causal analysis can be undertaken where we can hypothesise and test the extent to which employment experiences are related to family building occurrences. Theories relating to the effects on labour market experiences of delaying marriage and childbirth can therefore be tested. The belief in the connectedness of social life has been suggested in work elsewhere (Roberts 2003, Roberts *et al* 2003, Pollock 2007) and means that in order to fully understand longitudinal social processes there is a need to be sensitive to how life develops on a variety of fronts.

The South Caucasus

Background

The South Caucasus comprises Armenia, Azerbaijan and Georgia. This is one of the most ethnically and linguistically diverse regions in the world. Contemporary history in this region begins with the decline and subsequent break up of the USSR. The common heritage of the Soviet system is what bound these countries together. Russia remains an important neighbour to all, though diplomatic relations vary considerably. Armenia retains the best relationship with Russia and Georgia has the worst. These countries are relatively small with Azerbaijan the largest with a population of around

8 million (see table 1). The relationships between the countries are complicated by territorial and economic disputes. Armenia is landlocked and has a closed border with Azerbaijan and Turkey, a result of the war and continuing occupation of Nagorno Karabakh – a predominantly (and since the occupation completely) ethnic Armenian area in Azerbaijan. Armenia relies on routes through Georgia and Iran to facilitate trade. Azerbaijan has been a major world source of oil for over a century. The Nobels and the Rothschilds made their fortunes drilling for oil in Azerbaijan. As with some other oil rich nations in the middle-east, however, having this resource does not always benefit the general population and average levels of wealth in Azerbaijan are no higher than in Armenia and Georgia. Georgia has its own internal territorial disputes which render much of it impassable and militarised. The areas of South Ossetia and Abkhasia, both of which border Russia, contain an ethnic mix which is largely antagonistic to Georgian rule. Russia has capitalised upon this tension and has a large military force on the Georgian border. Georgia is the most western inspired of these countries. This, together with the ethnic tensions within, has led to a deterioration of their relationship with Russia.

Table 1: Regional characteristics

Country	**Area**	**Population**	**Region**	**Population**
Armenia	30,000 sq km	3.2m	Yerevan	1m
			Kotayk	240k
Azerbaijan	87,000 sq km	8.4m	Baku	2m
			Aran-Mugan	1.7m
Georgia	70,000 sq km	4m	Tbilisi	1.5m
			Shida Kartli	280k

Theories of change

Analyses of ex-communist societies have used a variety of theories to understand the effects of the transition. Four in particular stand out (Roberts and Fagan 1999); the influence of Western culture, increased levels of poverty, wealth based stratification, and 'traditional' divisions. On the basis of a study of leisure practices, which are embedded within the socio-economic context, they found that traditional divisions closely related to gender and social class offered the best framework with which to understand different experiences. In other words there was a tendency, as in the west, for elites to reproduce themselves through the use of resources to influence the education of their children, helping them to be placed onto an academic-professional

trajectory. As outlined below, the degree of this social reproduction appears to have declined. A question for our survey is, therefore, the extent to which these elites have in fact managed to retain this influence, or whether it has been eroded or even replaced.

Education

The education systems in the South Caucasus have been slow to change. Apart from the almost immediate jettisoning of the Marxist curriculum, at the time of transition the education system was not regarded as in need of urgent reform. The Soviet style had been regarded as operating well in supplying a flow of trained workers for the demands of the communist economy with around a fifth of young people entering higher education directly from school. Indeed Georgia and Armenia were regarded as amongst the best educated peoples in the whole Soviet Union (Roberts *et al* 2000). While the equality of status between vocational and academic schools was the official line, there was a close relationship between parental and children's education experiences (Gerber and Hout 1995). Indeed those parents seeking to encourage their children to gain a good education and with sufficient resources would facilitate university entry by getting private tutors to prepare them for entrance examinations (Roberts *et al* 2000). As the economies began to change, the education systems followed. In broad terms this meant that levels of state funding declined with a corresponding decline in the condition of state education institutions. Numbers staying on at school and going into higher education increased and private schools and universities began to appear. State sponsored education has, therefore, been supplemented by a flourishing private fee-paying sector. This has had the knock-on effect of young people becoming more reliant than before on families and/or peripheral jobs to fund their studies. In terms of the curriculum there have now been significant changes. Western languages are now more popular than Russian and there has been a shift towards subjects like law, business studies and IT/computing (Roberts *et al* 2000).

Employment

Employment outcomes after the transition to post-communism are a major interest in our study. Evidence thus far has pointed to a complex picture where family connections are no guarantee of success. There are, therefore, problems with an

overarching theory of class-based reproduction. The inherent instability of the transition encouraged a feeling of precariousness in young people, given that many high status professions and people had suffered a massive drop in position and wealth. The work of Roberts *et al* (2000) showed that young people felt that a resilient outlook where the importance of hard work, education and a certain amount of luck would help in the long term. The long term importance attached to a good education shone through in this study. This has been supplemented by further work in this region (Tarkhnishvili *et al* 2005) which has found that young people's responses to the problems of the transitional state of the labour markets in their countries has been predominantly to be patient and to assume that in time the situation will improve. This, again, puts greater pressure on the family as it is generally with family support that such patience is facilitated. The second most important response to the transition related problems has been to move. Both internal and international migrations are frequently stated responses to economic difficulties. While migration to the West is the most desirable, it is also the most difficult to arrange. The most likely destination is Russia, where temporary employment based migration is not unusual.

DI 2005 survey results

The DI 2005 gives a snapshot of some issues which relate to our survey. This survey was undertaken in two regions within each country, the capital city plus another. The survey was of the household in that a range of questions were asked about all household members: to do with education, migration and contribution to the household economy. In all other respects the survey is of the individual respondents' attitudes, beliefs and experiences on a range of modules covering trust in social institutions, crime, the economy, and leisure. Table 2 shows various sample characteristics of the DI2005, the number of respondents in the birth cohort 1970-1976 within each area and the achieved sample for our survey.

Table 2: sample characteristics of the DI 2005 and the SCLH 2007

Country	**Region**	**DI 2005 no. of HH's**	**DI 2005, respondents born 1970-76* (% male in brackets)**	**DI 2005 no. of people in HH's**	**DI 2005 no. of HH members born 1970-76**	**Projected SCLH sample**	**Achieved SCLH Sample*** **
Armenia	Yerevan**	750	76 (39)	3028	269	200	202

	Kotayk	750	95 (25)	3495	298	200	200
Azerbaijan	Baku	750	98 (29)	2916	295	200	201
	Aran-Mugan	750	107 (38)	3638	347	200	214
Georgia	Tbilisi	750	78 (45)	3169	295	200	201
	Shida Kartli	750	69 (56)	2883	279	200	199
Total		4500	523			1200	1217

*A single householder was used as the main respondent in each household. Hence this number represents the number of respondents in this birth cohort and not the number of people in the households within this birth cohort, which is of course a lot larger. The SCLH sample is drawn from the full list of household members from the DI 2005 who were born between 1970 and 1976.
** There were problems with the Yerevan sample lists for 2005 which meant that it was not possible to locate all the desired household members for the SCLH survey. The Yerevan sample has therefore been supplemented with data from respondents to the 2004 survey born between 1970 and 1976.
*** The achieved sample is mostly, but not completely, derived from the DI2005 list. Attempts were made to improve the tracing and contact of the 2005 sample cohort but where this proved to be impossible 'reserve' sampling lists were used. This technique is not unusual in the South Caucasus and other states where the need to achieve a given sample quota is an administrative priority. Analytically it is possible to separate the primary and secondary samples. There is a need for further work to arrive at a robust weighting of the data for it to be regarded as statistically representative of the populations from the six regions.

These countries are relatively small and the capital cities are by far the most populated areas. Both politically and economically the capital cities are the locus of activity. In the DI surveys the capitals of Yerevan and Tbilisi are strictly urban centres whereas in Azerbaijan the DI area classified as 'Baku' actually denotes a larger area, taking in both the capital and a larger surrounding rural region. The dual status of Baku is reflected in the data examined below where the capital-region distinction is less marked in Azerbaijan than in Armenia and Georgia. The non-capital regions in this study were selected to provide a contrast. In Armenia and Georgia there are towns in the regions of Kotayk and Shida-Kartli which are close enough for daily commuting and this is one potential avenue for their future economic development. The Azerbaijani region of Aran-Mugan is both a lot larger than its counterparts in the other countries, as well as being more remote from the capital city and certainly too far for daily commuting. While each of the regions has a variety of settlements of different sizes, none come remotely close to the size and importance of the capital cities.

The remainder of this section reports summary findings which will provide useful context and benchmarks for the SCLH survey.

Table 3: Education of DI 2005 1970-76 cohort

	Tbilisi	**Shida Kartli**	**Yerevan**	**Kotayk**	**Baku**	**Aran Mugan**

Complete secondary	21	35	22	51	46	65
Secondary technical	22	32	26	23	12	12
Higher and above	53	25	47	15	34	14
Other	4	8	5	12	8	9
Total	100%	100%	100%	100%	100%	100%
N	78	69	76	95	98	107

Levels of education are high with those not completing some form of secondary education very much in the minority. Advanced education is widespread, especially in Armenia and Georgia where in the capitals around 50% of those surveyed had completed a course in a higher education institution. Unless our sample returned to education in later life, they will all have received an educational experience similar to one provided by the Soviet system. Despite the collapse of the Soviet system, the education system has been slow to change. It will be of interest in the SCLH survey to see if there was a tendency to stay in education for longer as a result of greater uncertainty in the labour market during the early 1990s. Any such effect would signal a family investment in the future, given that to stay in education would make young people reliant on their families for longer.

Table 4: Employment status of DI 2005 1970-76 cohort in 2005

	Tbilisi	**Shida Kartli**	**Yerevan**	**Kotayk**	**Baku**	**Aran Mugan**
Employee of private company (inc agriculture)	19	23	21	7	10	3
Employee of public company	27	13	22	11	18	10
Self employed	6	10	4	13	8	13
Unemployed	26	38	15	24	10	20
Family carer*	*	*	30	42	40	31
Other**	22	16	8	3	14	23
Total	100%	100%	100%	100%	100%	100%
N	78	69	76	95	98	107

* In Georgia this category is not used, the data appears to fall between ‘unemployed’ and ‘other’.
** Other includes (not employed and not looking for job, student, retired, disabled)

At the point of survey in 2005 this cohort will have been aged between 29 and 35 years of age. There ought, therefore, to have been significant experiences of employment and career development. Common to all regions is the contemporary prevalence of unemployment. The regions suffer much more than the capitals, with at

least 20% of the sample unemployed. High levels of those caring for a family are partly an effect of the high proportion of women in the sample. The SCLH survey will be able to identify the trajectory of employment for each respondent. This means that we will be able to see the complete sequence of employment statuses (and jobs) which 'end' with the status during 2007. This longitudinal measure will be of great use in assessing the impact of both employment and unemployment through the transition years. We will be able to assess the extent to which young people have extended their waiting time before taking a job commensurate with their education. We will also be able to analyse different types of employment trajectory in order to identify those which appear to have resulted in the most successful outcomes. It will be interesting to determine the extent to which temporary employment-based migration proves to be a useful long term strategy.

Table 5: Ownership goods and resources DI 2005 1970-76 cohort, % saying 'yes'

	Tbilisi	**Shida Kartli**	**Yerevan**	**Kotayk**	**Baku**	**Aran Mugan**
Flat	78	20	82	64	48	54
House	33	75	9	35	54	38
Dacha	36	4	8	3	4	3
car	36	28	33	22	18	12
computer	17	4	21	5	0	8
internet	13	0	12	1	1	3
telephone	85	19	91	68	49	64
Mobile phone	78	46	50	18	44	49
TV	97	99	96	93	86	86
Automatic washing machine	67	35	37	7	20	8
Central heating	10	0	3	6	4	5
Livestock	1	42	3	28	26	17
Poultry	12	55	5	33	46	27
Land	30	73	5	48	38	22
N	78	69	76	95	98	107

The data on table 5 show that home ownership, either of a flat or a house, is commonplace. Here ownership may not be by the respondent as the question asks about 'you or your family': ownership may therefore be by a parent or another family

member. While this is the situation at 2005, it will be of interest to see how this situation came about. Our data will show how rates of ownership changed through the years. In general terms, residents of the capital cities are more likely than their regional counterparts to own the non-agricultural items listed on table 5. Baku is exceptional in appearing little different to Aran-Mugan. This can be explained through the Baku survey area taking in rural areas as explained above. It could, however, be that there is less regional difference in Azerbaijan compared to Georgia and Armenia on the basis of the areas studied here.

Table 6: First stated main source of income of DI 2005 1970-76 cohort

	Tbilisi	**Shida Kartli**	**Yerevan**	**Kotayk**	**Baku**	**Aran Mugan**
Salary from main job	77	30	62	37	44	52
Income from business	12	10	20	20	8	7
Occasional contract	3	7	11	7	8	7
Pension	4	23	3	8	17	17
Other	4	30*	4	28**	23***	17
Total	100%	100%	100%	100%	100%	100%
N	78	69	76	95	98	107

* two thirds of this figure was the sale of household goods
** almost half of this figure was for social welfare
*** most of this figure was income from agricultural activity

Where people are in employment this constitutes their main source of income, particularly in Tbilisi and Yerevan. In the less developed regions there is greater diversity and there is a greater likelihood of living off the land.

Table 7: Self assessment of economic condition of household, DI 2005 1970-76 cohort

	Tbilisi	**Shida**	**Yerevan**	**Kotayk**	**Baku**	**Aran**

		Kartli				Mugan
Better than fair	8	1	12	7	8	3
Fair	58	65	61	47	51	42
Worse than fair	34	33	26	46	40	54
Total	100%	100%	100%	100%	100%	100%
N	78	69	76	95	98	107

While the majority feel that the economic condition of their household is fair, there are a great many who believe that they are worse off. The Georgians are the most positive in their assessment and the Azerbaijanis the least positive. There is a slight tendency for those in the capitals to be more positive than those in the regions.

Table 8: Self assessment of change in economic condition of household over past three years, DI 2005 1970-76 cohort

	Tbilisi	Shida Kartli	Yerevan	Kotayk	Baku	Aran Mugan
Has improved	46	29	47	32	24	25
Is same	31	42	32	33	41	24
Has got worse	23	29	21	36	36	51
Total	100%	100%	100%	100%	100%	100%
N	77	69	76	95	98	107

It is interesting here to note just how many people have reported that things have changed either for the better or the worse. This can reflect a combination of both macro and micro factors. For a family with steady employment there will be a tendency to avoid a worsening economic situation. In a stable economy there should therefore be a tendency towards improvement. On the other hand, where markets are volatile and employment is closely aligned to this volatility, small relative gains can quickly turn into losses. Those living in Tbilisi and Yerevan are the most likely to have reported improvements in the economic condition of the household over the past

three years. This may indicate some stability alongside increasing prosperity in these cities.

Table 9: Self assessment of social class of household, DI 2005 1970-76 cohort

	Tbilisi	**Shida Kartli**	**Yerevan**	**Kotayk**	**Baku**	**Aran Mugan**
Lowest	4	0	7	17	10	8
Lower middle	23	20	20	20	32	40
Middle	60	73	57	48	48	48
Upper middle +	10	6	15	15	8	4
Total	100%	100%	100%	100%	100%	100%
N	78	69	76	95	98	107

Self reported social class is, of course, a subjective measure that will differ to that which a social scientist would allocate. It is nonetheless a useful measure of subjective relativities within and between societies. The Georgians are the most likely to self allocate to Middle and Upper Middle Class categories whilst the Azerbaijanis are most likely to self allocate to those categories below 'Middle'. These class perceptions in many respects map onto the data from previous tables on perception of the household economy and ownership of consumer goods.

The data examined above display significant regional differences in our survey. Differences in experiences and beliefs are apparent both within and between countries. Tbilisi and Yerevan appear distinct in terms of relative affluence and positive perceptions of how society has changed and is changing. In Azerbaijan the heterogeneity of the Baku sampling area may be hiding such a contrast, or there may simply be less of a distinction between Baku and Aran-Mugan as there is between the regions in Armenia and Georgia.

SCLH survey

The SCLH survey uses the sample lists for the DI 2005. The same six regions were used. In order to focus on the transition generation we targeted respondents born between 1970 and 1976 inclusive.

Figure 1: The age range of the SCLH sample

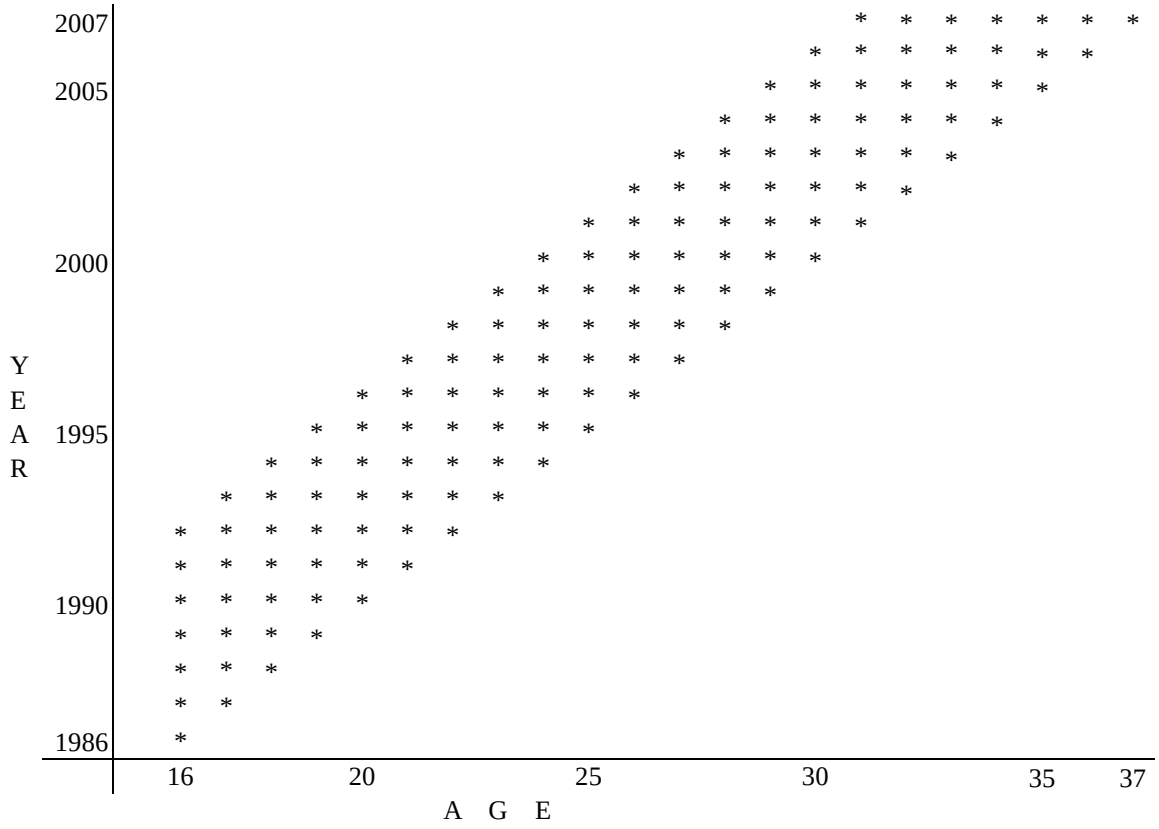

Figure 1 shows the age range of the cohort at different years. We therefore have data for all sample members between the ages of 16 and 30. The youngest sample members were 16 in 1992 and the oldest were 16 in 1986. Thus we have data going back to just before the post-USSR transition and stretching forwards to the present day. All of our respondents will have been initially educated under the soviet style system, albeit with the younger ones being taught a wider non-Marxist curriculum. For most, then, they will also have been allocated to particular jobs on leaving education (where jobs existed) in the style that was common to the planned approach.

The questionnaire contains eight modules of longitudinal data: employment status history, job history, education history, housing history, marriage history, cohabitation history, fertility history and leisure history. In addition to this there are data on household structure at 16, 25 and at the time of the survey; current economic situation, in terms of income expenditure and the consumption of goods; and, finally, there are data on parental education and employment. The full questionnaire, interviewer instructions and show cards are included in Appendix 1.

The longitudinal data were collected using techniques developed on long established surveys in order to help respondents to remember past events. The methodology and documentation for the British Household Panel Survey has been particularly helpful in this regard (Freed-Taylor *et al* 2007). Prior to answering the questions each respondent was asked to complete a 'Life History Chart' where important life events were identified on a grid. This allows the respondent to be able to visually associate the dates of leaving school, getting a job, getting married, having children, moving house, migration, death of a close relative and so forth. This chart was, then, a useful reference point when more detailed questions were subsequently asked about status histories - where dates (month and year) were particularly important.

This type of data present difficulties in so far as each respondent has a varying number of experiences on each of the longitudinal modules. This means that a traditional cross-sectional survey, where each respondent contributes the same number of variables, was not appropriate. Instead we constructed a questionnaire which would allow each respondent to have a different number of (or even no) experiences on the longitudinal modules. Data collection is not so difficult: we used grids with the variables appearing along the top, so that each employment status represented a line of data on the sheet. Transferring the data to digital files which could be subsequently analysed using mainstream software was a greater challenge. A three-step process was used where the data were firstly entered into a bespoke database. We developed our own On-line Data Entry Tool (which we called ODET) so that our field offices in the South Caucasus could enter the data directly onto a custom built on-line database (housed on a computer server in the UK). Appendix 2 explains the system further and provides an example of a data entry screen. This system mirrored, as far as was possible, the English version of the questionnaire (i.e., the on-line tool had the same structure as the questionnaire). We discussed the possible need for three different language versions of ODET, but each team managed to use data entry clerks who were sufficiently competent in English for us to use a single version. This was useful in that it meant that there was a single system in use and that there was no need to provide translations of the on-line instructions into three languages. It would, nonetheless, have been possible to have had three such versions in use and for the data to have been entered into a single database. The second step was to process the data held in ODET into a series of SPSS files for subsequent

analysis (see Appendix 3 for greater detail on how this was done). The final step was to re-assemble the SPSS data for analysis. Unlike many surveys, but similar to surveys such as the BHPS, the data are held in a number of related files – in effect a relational database. Most statistical analysis requires that these files be processed in order to produce a customised file which contains the variables required for a particular purpose. This requires some knowledge of how to manipulate relational databases. Examples of how to do this using SPSS with SCLH data are shown in Appendix 4.

Analytic methods

In addition to traditional analytic techniques our data are particularly suited to longitudinal methods. Event History Analysis (EHA) can be used to focus on particular transitions so that the dynamics of moving into and out of unemployment can be explored and modelled. EHA has a track record in social science in helping us to understand the determinants of certain time related phenomena (Blossfeld *et al* 1989, Blossfeld and Rohwer 1995). A drawback of EHA is the need to focus on a single variable as a dependency against which the determining factors are analysed. Our theoretical position, that there is a need to articulate the different life spheres in an holistic manner, has led us to explore the utility of Sequence Analysis (SA), in particular the ways in which SA can be developed into a multivariate tool. SA has been pioneered in the social sciences by Andrew Abbott (Abbott 1995 2001, Abbott and Forrest 1986, Abbott and Hrycak 1990, Abbott and Tsay 2000). Where any social variable has a time sensitive component it can be subject to sequence analysis. In most instances the end product is a typology which informs theoretical development. Studies of social class (Halpin and Chan 1998), housing (Stovel and Bolan 2004) and employment (Scherer 2001) have all been shown to benefit from this type of approach. The method of Multiple Sequence Analysis (MSA) is still in its infancy. While implicit in earlier work (Abbott and DeViney 1992, Stovel *et al* 1996, Blair-Loy 1999), it has the potential to lead to new areas of inquiry (Pollock 2007). At its most basic level it can provide empirical evidence for theoretical schema by which we reduce data analysis in order to make it more intelligible. Hence, allocating people to particular early career routes on the basis of their education and employment experiences – a long used method of summarising the transition from

school to work – is made more robust with SA or MSA because rather than analysing start and end points (which are always problematic abstractions in any sociological analysis) the whole sequence of data is used. The particular advantage of MSA is in being able to add further layers to sequences without the need to add them to a model as a 'time dependent covariate'. Therefore we can examine, for example, employment status alongside marital status history and fertility history without the need to restrict the analysis to any particular event type on any of the contributing variables. This can make MSA a lengthy analytic technique as with every new variable added the possibilities for combined effects multiply.

One of the aims of our project is to use both EHA and MSA in order to identify the strengths and weakness of each in analysing a rich longitudinal data source. It was with this in mind that the questionnaire development required such attention to the detailed collection of the dates that events occurred.

Methodological Reflections

International comparative research inevitably contains particular problems that need to be overcome, although it is not self-evident that similar problems do not exist in national projects. Linguistic / cultural differences and coordinating teams in different countries do present challenges, but any truly national survey of the UK would also face the same issues - though perhaps to a lesser degree. The following summarises the main practical problems we had to overcome:

1 - Working in English meant that each element of the questionnaire had to be translated into the local language in order to facilitate the accurate measurement of the correct concepts (i.e., we used conceptual/functional equivalence as opposed to a direct translation methodology). This required each question in the questionnaire to be discussed in detail so that each team understood why the question was being asked, what would be looked for in the analysis, and therefore what were the appropriate answer categories. There is a single set of response categories common to all three teams, thus ensuring that the analysis will be truly comparable.

2 - As there were three separate research teams we had to arrive at a survey design methodology that was acceptable to all three. Hence questions of sampling,

fieldwork, data entry and questionnaire design all had to be ratified by each team. In practice this proved to be fairly unproblematic as there were no direct antagonisms between teams. The only major difference that arose was due to technical problems which rendered it impossible to operate exactly the same sampling procedure in Armenia as had been done in Azerbaijan and Georgia.

3 - Whereas each of the partner teams were used to operating a similar set of survey instruments through their prior collaboration on the DI surveys, these did not always coincide with the expectations of the UK team. The routine use of 'reserve' sampling lists to ensure that a pre-defined number of respondents would be achieved appears to be widespread in the South Caucasus. We decided to adopt this methodology in the knowledge that we had structured the data in such a way as to be able to separate respondents from primary and secondary lists should the need arise.

4 - The SCLH questionnaire is innovative and while it borrows from established methodologies it is a complex survey instrument. This meant that interviewer training and clear instructions on the form were of high importance. We can say that the survey has been a success in that we have collected a body of data, but we will need to determine that these data are truly valid and free from excessive interviewer bias. We can differentiate the interviewers so it will be possible to explore the extent to which there might be interviewer effects.

5 - The use of an on-line data entry system was an innovation of which none of the team members had had any direct prior experience. The complexity of the survey meant that it would be impossible to use a two-dimensional grid to enter the data; hence a standard spreadsheet approach could not be used. This meant that a relational database was required. We could have distributed a custom designed database to each team and left them responsible for managing their own data entry. There is no reason why this would have not worked, were a non-paper data collection procedure (for example CAPI – Computer Aided Personal Interviewing) to be used then such software would have been a requirement. The data from all three teams could easily have been merged on completion. We elected, however, to use an on-line solution. This allowed for the system to be updated globally if required (and it was required on a number of occasions) so that it was not necessary to distribute a 'patch' to three separate teams. It also represented a solution which would not rely on local computing systems (other than internet access). The responsibility for backing up the data was therefore with the UK team. Using a central resource meant that there was a

need for the UK team to be available during data entry to respond in a timely fashion to enquiries.

The solution to each of the problems listed above involved dialogue in a variety of forms with the research partners. Central to this was the project meeting in Tbilisi where the detail of the questionnaire was finalised and where key research design issues were determined. Prior and subsequent communication by email meant that (i) the Tbilisi meeting was efficiently used and (ii) questions arising from the Tbilisi meeting (and subsequent issues) could be dealt with quickly. In addition to this field visits to each of the six regions were conducted in order to provide direct experience of the areas being surveyed. This is of particular importance to the UK team in order to place the survey data into context.

Discussion

Young people in the South Caucasus had, under communism, been used to stable and predictable transitions into employment. Education figured strongly, as did family support in terms of providing accommodation and a generally secure environment for young people as they grew into adulthood. There were social divisions where parental influence over their children's education and subsequent employment stratified experiences. Thus, life chances were not uniform, despite the government rhetoric. Rather than class reproduction as we understand it in the UK, this was best understood through the influence of elites in society - often related to political networks. The transition to post communism has disrupted these predictable trajectories. We know about aspects of how these transitions have changed from previous studies. Social stratification remains, gender divisions may have got wider, dependence on the family has increased and employment based migration is not unusual. What we have yet to find out is how experiences have developed since the transition. In other words we do not know the routes that people have taken to reach where they currently find themselves. Our data will eventually be able to provide such narrative accounts. It will also be able to show where there are links between education, employment, housing, family and leisure experiences.

It is, however, too early to report in any depth on the findings of our survey. At present we have the data and it is close to being finalised. There is a methodical data

checking process nearing completion which, as with all quantitative surveys, highlights data entry errors which must be corrected prior to the full analysis. As well as minor data entry errors, we need to identify differences in the data where it is possible that a different field office may have misinterpreted a question. Thus far we have not found any significant problems at this level. What we do know is that, from a technical standpoint, the survey has worked. This is not to be underestimated. The questionnaire used here is unusual even by western standards in seeking to generate a wealth of retrospective data with so many longitudinal elements. The field offices have experience in working in a variety of languages and dialects through their DI surveys. We have benefited from this but still need to understand where local translations might be conceptually problematic. The common heritage of the Russian language is helpful in this respect. Future surveys in this region may not work so well as Russian declines in popularity as a second language amongst younger people.

We also know from the field reports that the respondents enjoyed completing the questionnaire and were keen to find out more about why researchers would be interested in the minutiae of their lives. We will be able to have a closer engagement with some of our respondents in the next phase of data collection as this will be in the form of semi-structured interviews. These will be carried out once we have undertaken preliminary analysis of the survey data.

We have managed to collect detailed life history data from a controlled sample of people who are representative of the areas from which they have been drawn. This will allow us to map out social origins and destinations in a sophisticated way and allow us to make some generalisations about other young people in similar circumstances in the South Caucasus. Our data will provide a detailed account of the lives of South Caucasians who grew up during the transition to post-communism. Our findings will be a foundation for future projects which might usefully examine the currently unfolding lives of young people in this region as they make their various transitions into adulthood.

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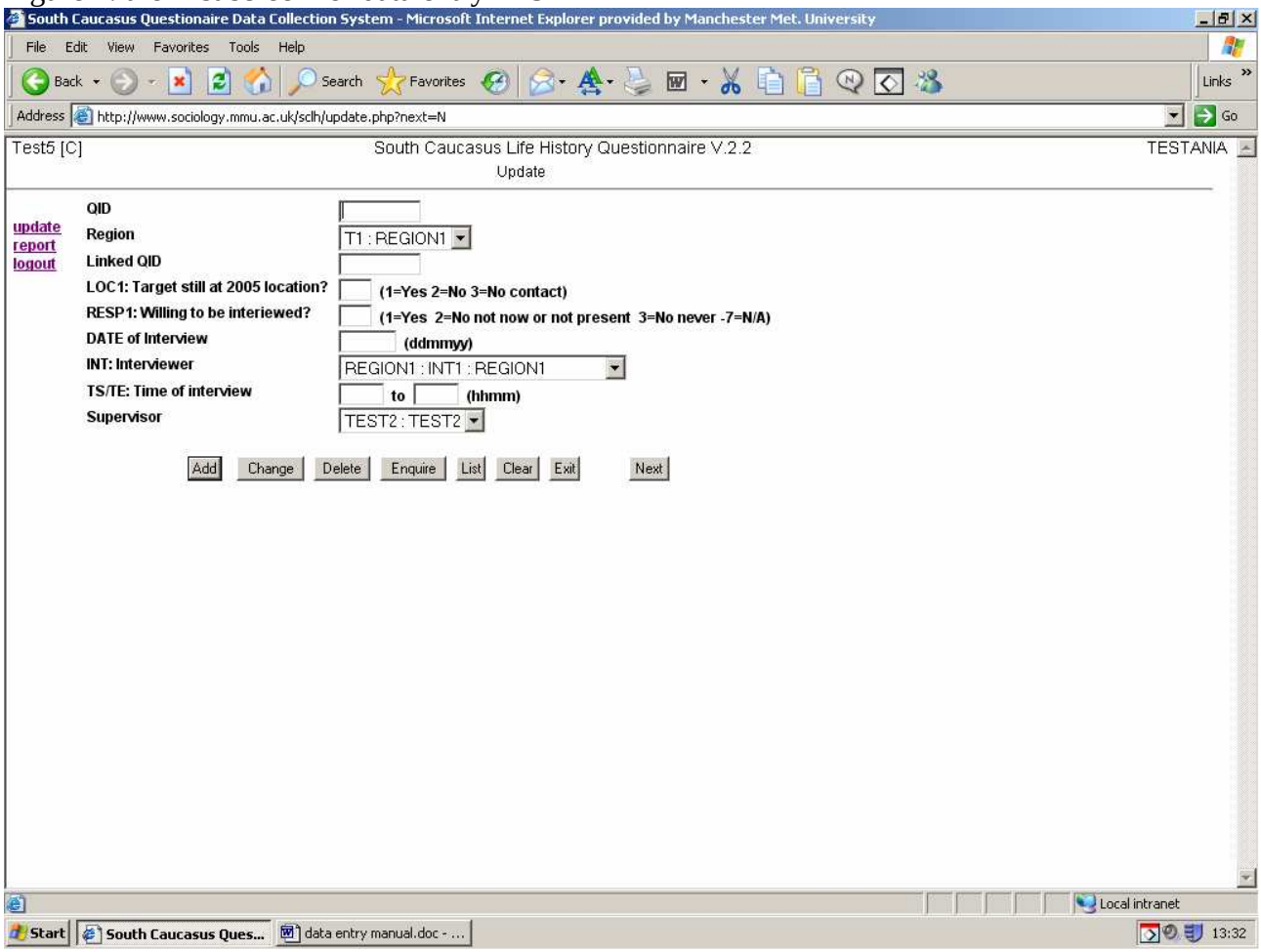
Appendix 1: the Questionnaire, Show cards and Instructions
[see separate file]

Appendix 2: The on-line data entry system and testing schedule

ODET was written by Guy Lancaster of Manchester Metropolitan University in PHP/Mysequel. The system has four levels of user: the highest level (level 1) can change the code which defines the underpinning structure of the application. Level 2 access can change the appearance of the screens as well as many elements of the structure of the database. Level 3 access can set up interviewer codes and data entry clerk codes. Level 4 access (the lowest) can enter data. Data validation on variables was included in order to prevent the entry of incorrect values. The data was held in a database which we could back up whenever required and from which we could create a .CSV file which could be read directly into SPSS. The data validation ensured that in most cases incorrect values could not be entered. Exceptions to this were few but there were a number of real and apparent errors which had to be checked. Checks were carried out in the UK and by each of the teams.

ODET was distributed along with a user manual. It was tested in the UK and by each of the teams using dummy data prior to being used for entering the actual data.

Figure 2: the first screen for data entry in ODET



Appendix 3: Processing the data (PHP to SPSS)

Initial data processing involved running a series of SPSS command files which converted basic raw data into survey data which could be analysed statistically. The raw data were a matrix with six variables which could uniquely identify each item of data in such a way that it could be re-processed to produce a survey data set where an individual respondent and/or an episode associated with them would be the most basic unit of analysis. The six variables are:

V1 = Country ID — ie. one of the three countries

V2 = Person ID — this was unique within country

V3 = Page — this represented the section of the questionnaire, and often corresponded to the page of the questionnaire

V4 = Row — within a page this uniquely identified a row

V5 = Column — within a page this uniquely identified a column

V6 = Data — the data for the unique combination of V1, V2, V3, V4, V5,

Hence V1 to V5 are spatial coordinated for the respondents' data (V6).

The conversion of this raw data file to SPSS format involved a series of command files which sorted the data and inserted V6 (data) into the correct place in a series of pre-defined files. Nine separate data files were produced, one for each longitudinal module and a 'core data' file which contained the non-longitudinal data.

Partial download of data*

V1	V2	V3	V4	V5	V6	
A	109127.00	10	1	.0	1.00	s1 (gender)
A	109127.00	10	2	.0	76.00	s2.1 (year of birth)
A	109127.00	10	3	.0	7.00	s2.2 (month of birth)
A	109127.00	10	4	.0	1.00	s3 (where born)
A	109127.00	20	1	.0	2.00	a1.1 (no. of parents in household at age 16)
A	109127.00	20	1	1	1.00	a1.2 (no. of grandparents in household at age 16)
A	109127.00	20	1	2	.00	a1.3 (no. of brothers/sisters in hh at age 16)
A	109127.00	20	1	3	.00	a1.4 (no. of own children in household at age 16)
A	109127.00	20	1	4	.00	a1.5 (no. of other children in hh at age 16)
A	109127.00	20	1	5	.00	a1.6 (wife/partner/cohabitee in hh at age 16)
A	109127.00	20	1	6	.00	a1.7 (no. of other people in household at age 16)
A	109127.00	20	2	.0	2.00	a2.1 age25
A	109127.00	20	2	1	.00	a2.2 age25
A	109127.00	20	2	2	.00	a2.3 age25
A	109127.00	20	2	3	.00	a2.4 age25
A	109127.00	20	2	4	.00	a2.5 age25
A	109127.00	20	2	5	.00	a2.6 age25
A	109127.00	20	2	6	.00	a2.7 age25
A	109127.00	20	3	.0	2.00	a3.1 at time of survey
A	109127.00	20	3	1	.00	a3.2 at time of survey
A	109127.00	20	3	2	.00	a3.3 at time of survey
A	109127.00	20	3	3	2.00	a3.4 at time of survey
A	109127.00	20	3	4	.00	a3.5 at time of survey
A	109127.00	20	3	5	1.00	a3.6 at time of survey
A	109127.00	20	3	6	.00	a3.7 at time of survey

* There are almost 500,000 lines of data as shown above in the full data set.

Appendix 4: Data structure and usage

The data are stored in nine separate but related files. The separation of the files allows efficient storage of episode data. Each file can be matched to each other as they all contain country identifiers and respondent identifiers.

Core Data file:

Common variables: Country, Region, Respondent ID
s1 'gender' s2.1 'year of birth' s2.2 'month of birth' s3 'place of birth' a1.1 to a3.7 family composition at 16, 25 and at time of survey ed1 'age left full-time education' ed2 'type of institution' ed3 'highest education qualification' m1 'current marital status' c1 'ever cohabited?' k1 'has any children?' p1 'mothers highest qualification' p2 'fathers highest qualification' p3 'mothers usual occupation' p4 'fathers usual occupation' econ1.1 to econ3.4.

Longitudinal files

Data file:	Education	Employment status	Job	Housing	Marriage	Cohabitation	Children	Leisure
Common variables:	Country, Region, Respondent ID	Country, Region, Respondent ID	Country, Region, Respondent ID	Country, Region, Respondent ID	Country, Region, Respondent ID	Country, Region, Respondent ID	Country, Region, Respondent ID	Country, Region, Respondent ID
Other variables:	Ed4.1 to Ed4.11	Emp1.1 to Emp1.8	J1.1 to J1.11	H1.1 to H1.12	M2.1 to M2.4	C2.1 to C2.6	K2.1 to K2.7	L1_85 to L13_07

The common variables allow each file to be merged with each other, such that the data are appropriately matched. Analysis begins with a selection of variables from any of the files which must then be appropriately merged using the key variables in order to produce a customised data file for statistical analysis as shown in the two examples below.

Example 1: when interested in examining the characteristics of the first job that the respondents had we might want to use all of the JOB data (J1.1 to J1.8) plus some of the CORE data (region, gender, date of birth, highest qualification, parental education and employment). Figure 3 contains the SPSS command which produce such a data file.

Figure 3: SPSS command file to match core and job data.

```
*data from core data file needs to be sorted on the key variables.
GET FILE ‘core.sav’.
SORT CASES BY region id.
EXECUTE.
SAVE OUTFILE ‘temp1.sav’.

*data from job file needs to be sorted on key variables.
GET FILE ‘job.sav’.
SORT CASES BY region id.
EXECUTE.

* selecting the first job.
SELECT IF (j1.1 = 1).
EXECUTE.

* matching the core and job data.
MATCH FILES FILE = *
        /FILE = ‘temp1.sav’
        /BY = region id
        /keep region id s1 s2.1 s2.2 ed3 p1 to p4 j1.1 to j1.11.

* saving the desired variables from the matched data
SAVE OUTFILE ‘firstjob.sav’.

* erasing the temporary sort file.
ERASE FILE = ‘temp1.sav’.
```

Example 2: a more sophisticated analysis of background characteristics in relation to first job would, however, use the level of education at the time of getting that job. This is more complex as it uses data from three files (core, job, education) and requires some computations in order to identify the qualification possessed at the time of getting the first job. Figure 4 contains the SPSS command which produce the desired data file.

Figure 4: SPSS commands to match core, job and education data and for analysis of qualification on starting first job.

```
GET FILE 'core-1.sav'.
SORT CASES BY region id.
EXECUTE.
SAVE OUTFILE 'temp1.sav'.

GET FILE 'job-1.sav'.
SORT CASES BY region id.
EXECUTE.
SELECT IF (j1.1 = 1).
EXECUTE.

SAVE OUTFILE 'temp2.sav'.

GET FILE 'ed-1.sav'.
SORT CASES BY region id.
EXECUTE.
```

```
MATCH FILES FILE = *
          /TABLE = 'temp1.sav'
          /TABLE = 'temp2.sav'
          /BY = region id
          /keep region id s1 s2.1 s2.2 ed3 p1 to p4 j1.1 to j1.11 ed4.1 to ed4.11.

* selecting again as the education match introduces empty job lines of data.
SELECT IF (j1.1 = 1).

SAVE OUTFILE 'firstjob2.sav'.

ERASE FILE =  'temp1.sav'.
ERASE FILE =  'temp2.sav'.

*converting season codes to month equivalents.
RECODE j1.7 ed4.7 ed4.9 (13=1)(14=4)(15=7)(16=10).
MISSING VALUES j1.7 ed4.7 ed4.9 (-6).

* job start date.
COMPUTE jobstart = yrmoda(j1.6,j1.7,1).
EXECUTE.

* education end date - selecting out -8's.
DO IF ed4.8 GE 0.
COMPUTE edend = yrmoda(ed4.8, ed4.9,1).
END IF.
EXECUTE.

*flagging where education end events precede - or are same as - job starts.
DO IF edend LE jobstart.
COMPUTE flag = 1.
END IF.
EXECUTE.

* selecting out the flagged episodes.
SELECT IF (flag = 1).
EXECUTE.

* selecting most recent education-job episode.
SORT CASES BY region id ed4.1 (D).
EXECUTE.

DO IF id NE lag(v2,1).
COMPUTE flag2 = 1.
END IF.
EXECUTE.

SELECT IF (flag2 = 1).
EXECUTE.

SAVE OUTFILE 'firstjob2.sav'.
```

Appendix 5: Project Chronology

September 2006	First project meeting, Tbilisi, all teams present. Project aims and objectives outlined. Target sample determined. Tasks allocated to each team. Draft questionnaire discussed. Fieldwork plan finalised. Data entry tool plan agreed.
October	Questionnaire updated and distributed for pilot survey along with a completed example, show cards, interviewer instructions and field office instructions.
20th Nov 2006	After analysis of pilot survey, questionnaire finalised. Final version distributed to all teams along with a completed example.
January 2007	Field trip to Georgia (Tbilisi and Shida Kartli). Field trip to Azerbaijan (Baku and Aran-Mugan).
January/ February 2007	On-line Data Entry Tool (ODET) created.
1st March 2007	ODET made available to each team for testing.
29th March 2007	Results of ODET test analysed and updated version of ODET created.
February/March 2007	Main fieldwork in each of the six regions.
April 2007	Field trip to Armenia (Yerevan and Kotayk)
May 2007	Data entry.
June 2007	Conversion of ODET data to SPSS files, distributed to teams.
June 2007	Data files checking schedule distributed to teams.
July 2007	Data files determined to be ready for preliminary analysis.
September 2007	Second project meeting, Tbilisi, all teams present.
September 2007	Field visits to each team in Baku, Tbilisi and Yerevan to train analysts in the processing and statistical analysis of the data.
Spring 2008	Interviews with a sample of the respondents to the quantitative survey in each of the six regions.