SECTION 2. MANPOWER –EDUCATIONAL INDICATORS

The educational level of the manpower is a basic economic development index for a region, since it is linked to the utilization of knowledge and, consequently, to the extent of the implementation of innovation, which is one of the basic factors of economic growth. In addition, the educational level and the ability to acquire skills reflect the quality of manpower and its basic selection criteria by the employers. Therefore, the examination of the educational level of manpower is of particular importance. In this module we will present data concerning the educational level of the inhabitants of the country according to the 1991 general census, along with data concerning specific university training specialities.

2.1 EDUCATIONAL LEVEL

During the general census of 1991, the population of the country was divided into fourteen categories according to the educational level:

1. Postgraduate degree
2. HEI degree
3. TEI degree (LTE, LTEL)
4. College Degree
5. HEI, TEI, College Students
6. General Highschool/6-year Junior Highschool/Professional Highschool Certificate
7. TPH certificate
8. TPC certificate
9. 3-year Junior Highschool certificate
10. Junior Highschool drop-outs
11. Elementary school certificate
12. Did not graduate from Elementary School, but can read and write
13. Did not graduate from Elementary School and cannot read or write
14. Did not attend Elementary School and cannot read or write

Table 2.1 (in the last column) presents the distribution of the country population according to their educational level. It can be noted that the majority of the overall population (55,6%) has not completed the basic education. To that percentage there is also a significant percentage of illiterates included (4,5%). 18% of the total population holds a Highschool certificate, whereas only 11% has completed or is about to complete tertiary (higher) education. The percentage of those who hold a postgraduate degree seems to be negligible (0,39%).

The distribution of the population of Central Macedonia based on their educational level appears in the second column of table 2.1. It seems that the distribution of the population of Central Macedonia is proportional to that of the total population of the country. The largest part of the population (55%) has not completed basic education. The percentage of illiterates in Central Macedonia amounts to 3,6%. 15,6% of the population has graduated from Highschool, 12% has completed or is about to complete tertiary education, while the percentage of those holding a postgraduate degree is 0,38%.

Table 2.1. The educational level of Greek citizens (1991 census) Central Macedonia, Attica and Entire Country

EDUCATIONAL LEVEL	CM	AT	EC
POSTGRADUATE DEGREE	0,38	0,65	0,39
HEI DEGREE	6,18	7,99	6,10
TEI DEGREE (LTE, LTEL)	1,50	1,53	1,34
COLLEGE DEGREE	0,40	0,99	0,68
HEI, TEI, COLLEGE STUDENTS	3,83	3,32	2,71
GENERAL HIGHSCHOOL / 6-YEAR JUNIOR HIGHSCHOOL/ PROFESSIONAL HIGHSCHOOL CERTIFICATE	15,61	23,05	17,57
TPH CERTIFICATE	1,17	0,95	0,98
TPC CERTIFICATE	2,23	2,05	1,81
3-YEAR JUNIOR HIGHSCHOOL CERTIFICATE	10,58	11,28	10,77
JUNIOR HIGHSCHOOL DROP-OUTS	3,26	2,79	3,04
ELEMENTARY SCHOOL CERTIFICATE	36,70	31,76	36,80
DID NOT GRADUATE FROM ELEMENTARY SCHOOL BUT CAN READ AND WRITE	11,96	8,51	10,70
DID NOT GRADUATE FROM ELEMENTARY SCHOOL AND CANNOT READ OR WRITE	2,62	1,95	2,69
DID NOT ATTEND ELEMENTARY SCHOOL AND CANNOT READ OR WRITE	3,58	3,20	4,42

Figure 2.1.a Educational level in Central Macedonia, Attica and the Entire Country.

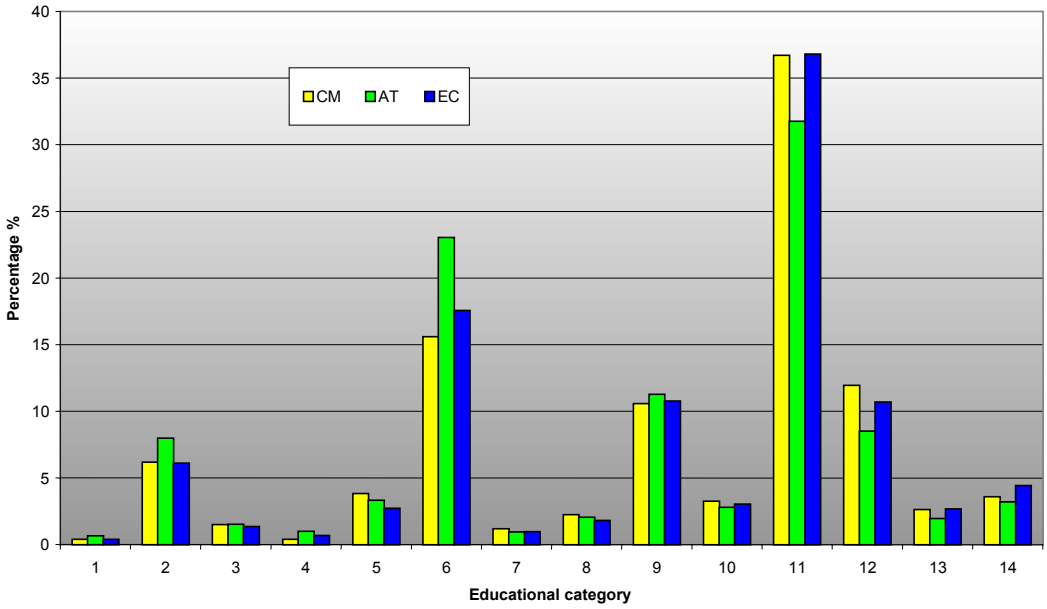
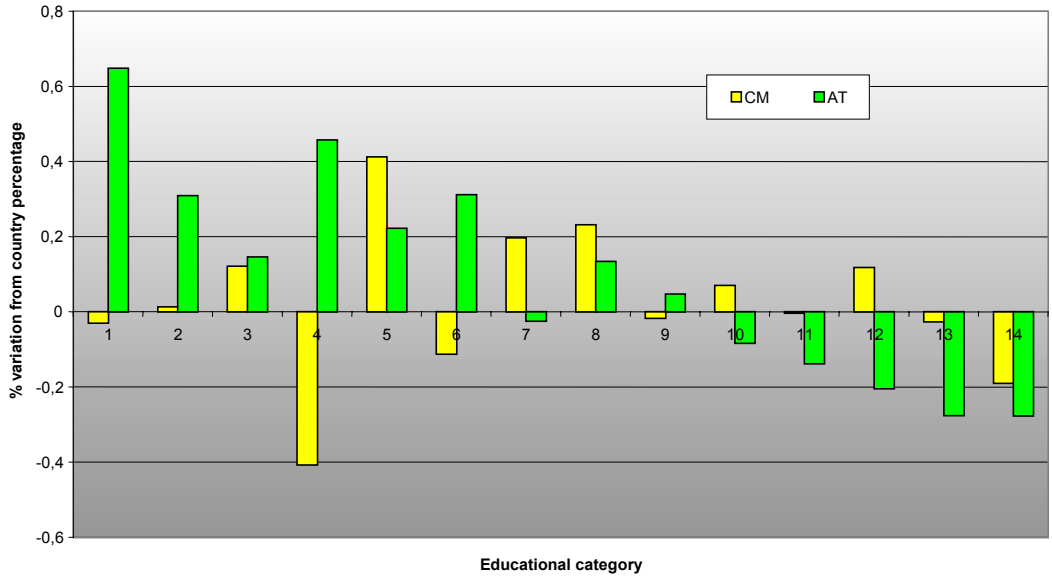


Figure 2.1.a illustrates the distribution of the population of Central Macedonia, Attica and the Entire Country based on the above-mentioned educational level categories.

Figure 2.1.b illustrates the comparative position of CM and AT as to the rest of the country. In the figure we can observe that Attica prevails as to postgraduate and HEI degree holders. This supremacy is also reflected on the low percentages in the categories of those who did or did not complete rudimentary education.

Figure 2.1.b Comparative presentation of Central Macedonia and Attica as to the Educational Level.



2.2. STUDY TITLES IN ENGINEERING AND INFORMATION TECHNOLOGY SPECIALITIES

In this module we analyse the data that ensued from the general census as to the the citizens' graduation institute and study title. This data is available per graduation department and Institution for HEIs and per graduation department for TEIs. At the same time, a connection is made with the data regarding the HEIs and TEIs freshmen of 2001. The HEIs and TEIs departments were divided into two categories: "traditional departments" and "innovation departments". Innovation departments were all those the curriculum of which and the vocational rehabilitation of their graduates relate to information and information technology and other relevant technologies, business organisation and administration and industrial production applications.

2.2.1. 2001/ ADMISSION FOR HIGHER EDUCATION

The percentage of annual admission is an objective index for future degrees in tertiary education. Figure 2.2.1.a illustrates the admission percentages in Higher Educational Institutes – Universities (HEI) and Technological Educational Institutes (TEI) innovation departments for Central Macedonia (13% and 22% respectively), Attica and the Entire Country.

Figure 2.2.1.a Percentage of innovation departments freshmen. Central Macedonia, Attica and Entire Country (HEIs and TEIs)

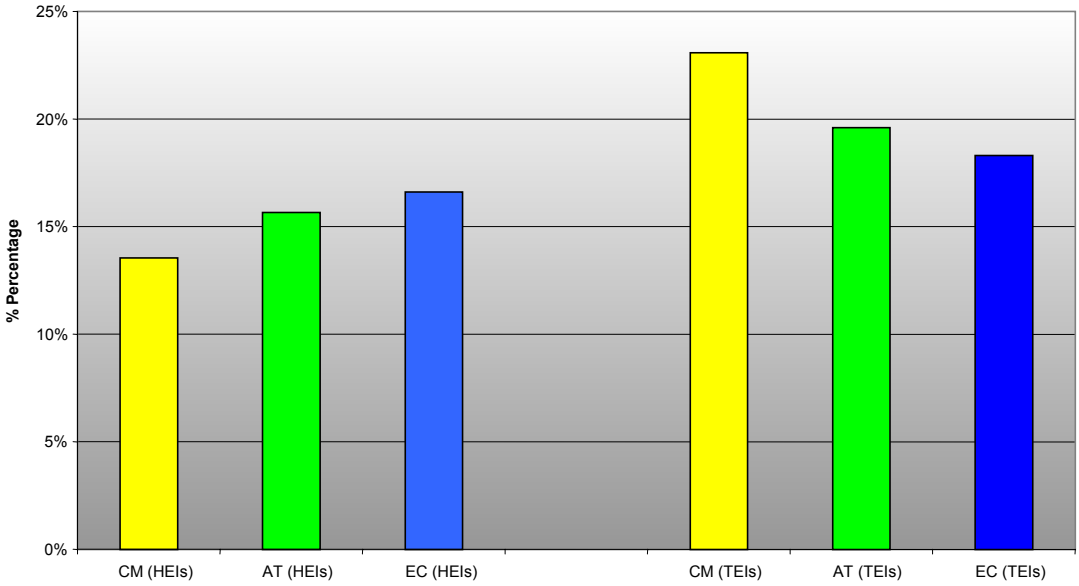


Figure 2.2.1.b illustrates the comparative position of Central Macedonia and Attica as to their variation from the Country average. Attica prevails in HEIs freshment and Central Macedonia in TEIs freshmen.

Upon comparison of the number of 2001 freshmen with the number of the 1991 graduates registered in the census, we see that there has been practically no change in the percentage of the innovation departments as to the total of Tertiary Education graduates. This percentage is steadily maintained close to 12% (one out of eight). In addition, figure 2.2.1.c depicts the geographical differentiation of Attica as to the Entire Country (today it is below average compared to '91) and the fixed position of Central Macedonia.

Figure 2.2.1.b Comparative position of Central Macedonia and Attica (innovation departments freshmen)

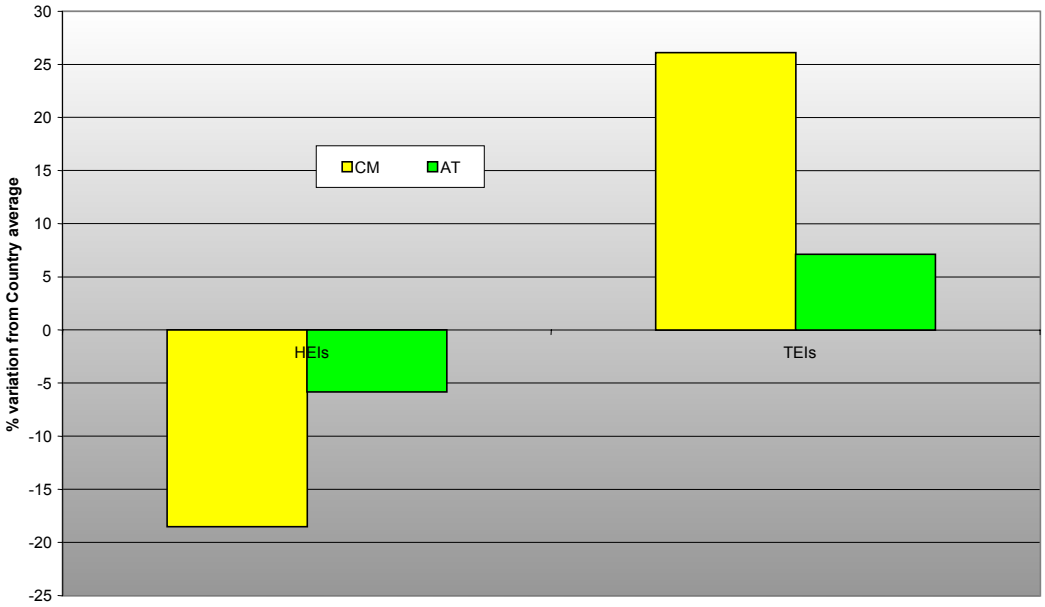
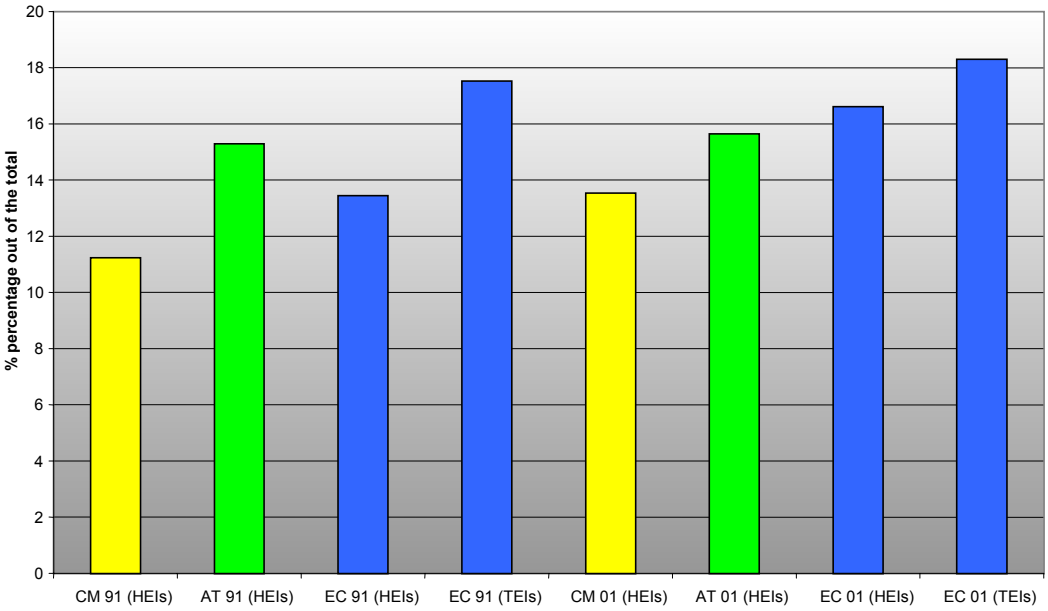
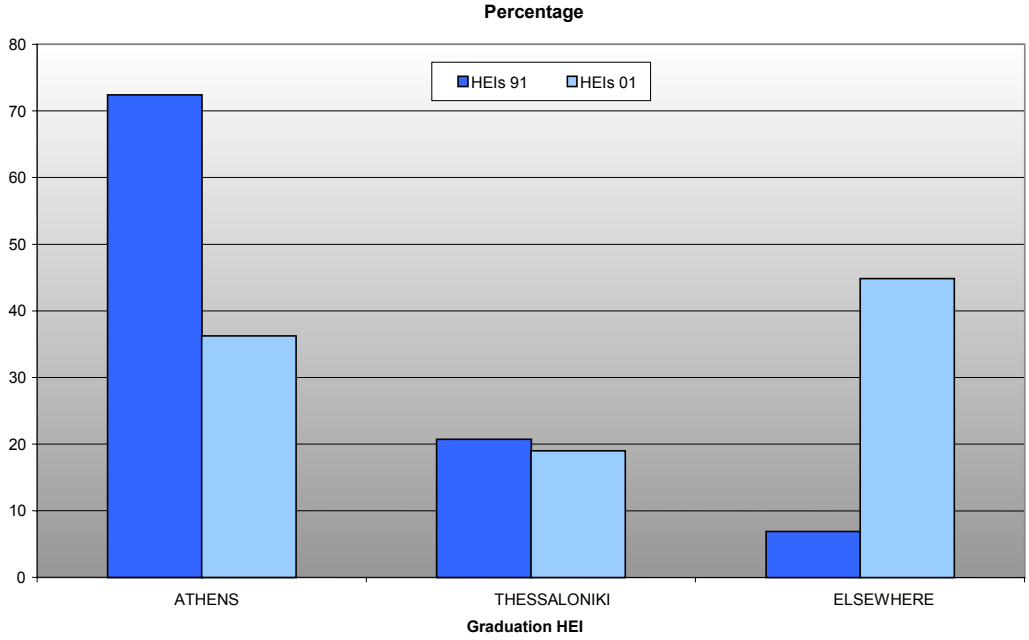


Figure 2.2.1.c Percentage of 1991 graduates and 2001 freshmen in innovation departments



This conclusion is also depicted in figure 2.2.1.d, where we see that 70% of the relevant HEIs graduates come from HEIs in Attica and 20% from HEIs in Central Macedonia, while the percentage of freshmen today is 35% and 20% respectively.

Figure 2.2.1.d Innovation department graduates per graduation HEI (1991) and 2001 freshmen



2.2.2. PLACE OF RESIDENCE AND GRADUATION UNIVERSITY

The selection of the Tertiary Education is also strongly connected to, apart from the discipline (which corresponds to the vocational rehabilitation criterion), the geographical position of the admission department. Therefore, it is interesting to see the noteworthy data in figure 2.2.2.a, where the vast majority of innovation departments graduates who in 1991 resided in the CC of Athens and the CC of Thessaloniki have graduated from respective HEIs (90% for Athens and 80% for Thessaloniki).

At the same time, it would be interesting to assess the attraction that the respective City Compounds have on the graduates of such departments, a fact that is directly linked to the demand for such degrees in the local labour market. One third of the graduates residing in the CC of Thessaloniki in 1991 comes from the respective Thessaloniki HEIs (36%), whereas approximately one in two (46%) have graduated from HEIs outside of Athens and Thessaloniki. Respectively for Athens, two out of three come from HEIs in Athens and one in three have graduated from HEIs outside of Athens.

Of course, the distribution of graduates from HEIs and TEIs (figure 2.2.2.c) as to their place of residence seems to illustrate the population proportions for the Entire Country. The above indicates that, compared to Athens, Thessaloniki is not a particular pole of attraction for such graduates, a fact that is also illustrated in the previous module, where the structure of the labour market in Central Macedonia, Attica and the Entire Country is being analysed.

Figure 2.2.2.a Percentage of innovation departments graduates per place of residence as to their graduation HEI

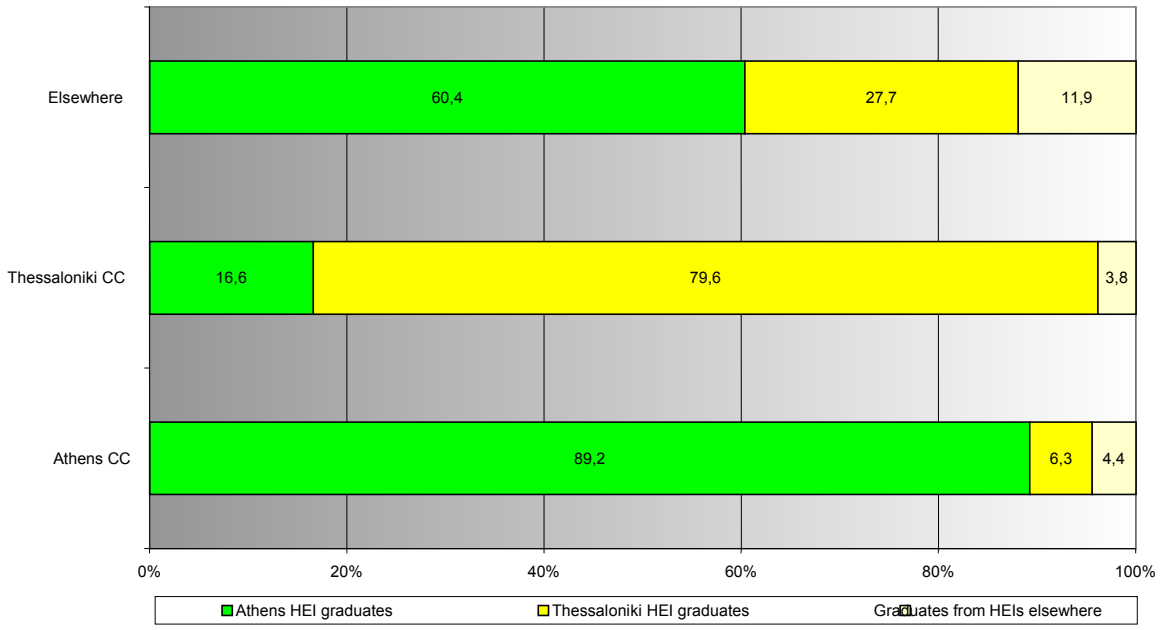


Figure 2.2.2.b Percentage of innovation departments graduates per graduation HEI compared to their place of residence

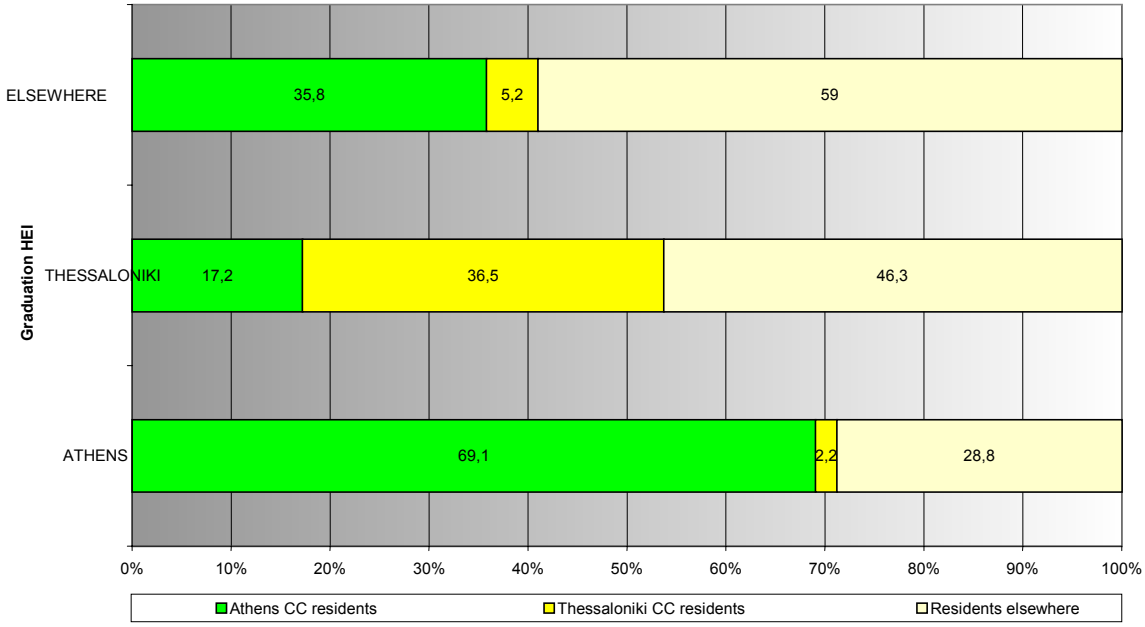
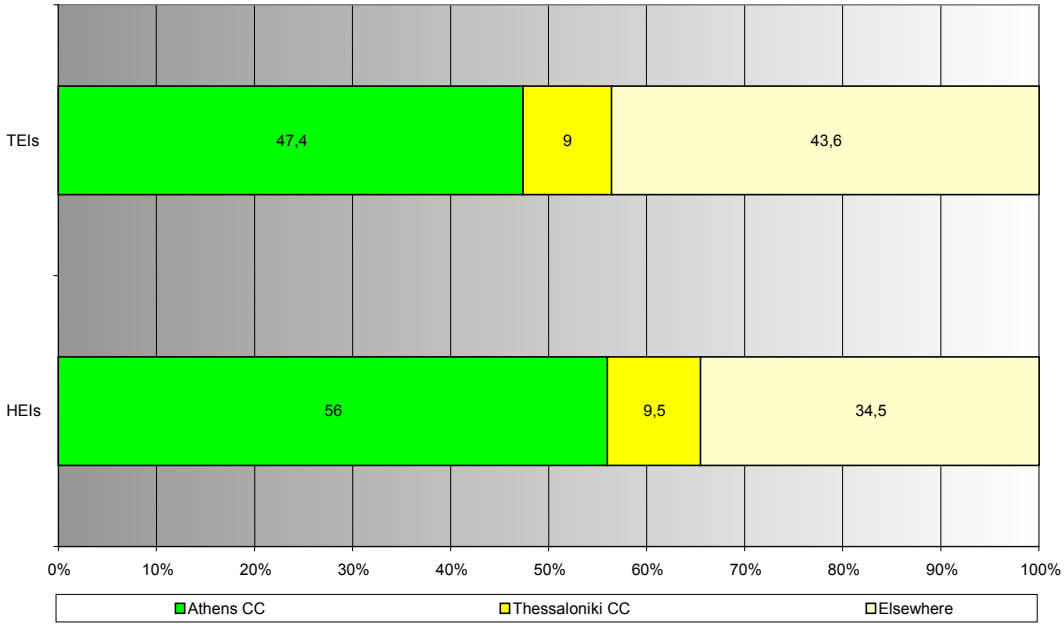


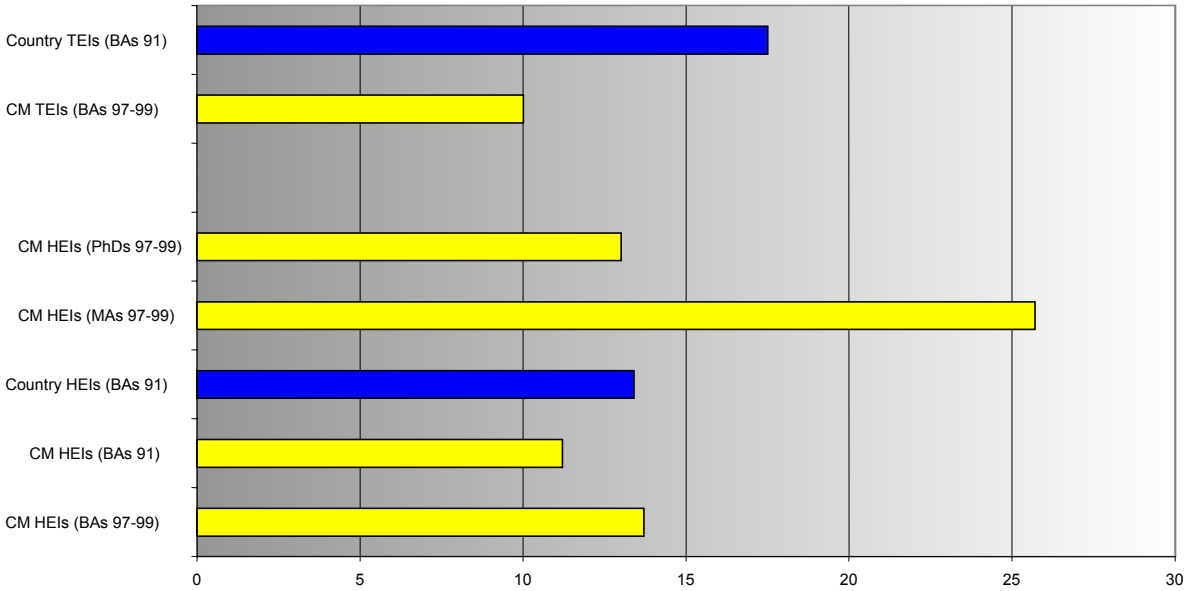
Figure 2.2.2.c Innovation departments graduates (HEIs, TEIs) as to their place of residence



2.2.3 CENTRAL MACEDONIA

Here we see an analytical illustration of the study titles of innovation departments (Bachelor's, Master's and Doctorate degrees) as a percentage of the total of study titles in the respective institutions. As regards the Thessaloniki HEIs (AUTH and University of Macedonia- UMA), the percentage of Bachelor's degrees is practically at the levels of 1991. One out of eight Thessaloniki HEI graduates is graduating from an innovation department. This percentage is the same as regards Doctorate degrees (PhDs), and is practically doubled (one out of four) as regards Master's degrees. The percentage of Bachelor's degrees from the Thessaloniki TEI is low (one out of ten), almost half of the respective percentage of the TEI graduates in 1991.

Figure 2.2.3.a Percentage (%) of HEI BAs, HEI MAsI, HEI PhDs and TEI innovation departments degrees. Data for Central Macedonia and the Entire Country (91 and 97-99)



2.3. MANPOWER ASSESSMENT

A field research conducted on a select sample of Central Macedonia enterprises illustrates the position of the cadres of those enterprises as to the adequacy of the manpower offered in the labour market of the region, regarding their degree of specialisation, the level of their knowledge and their prior experience. Figure 2.3 provides the answers from traditional and innovative enterprises. (% percentage of those who believe that the manpower offered is adequate). Innovative enterprises deem that the manpower available does not have prior experience (1 out of 20), one in four believes that the level of knowledge is adequate and one in five believes that the degree of specialisation is adequate. The respective percentages for traditional companies are close to 35% (one out of three).

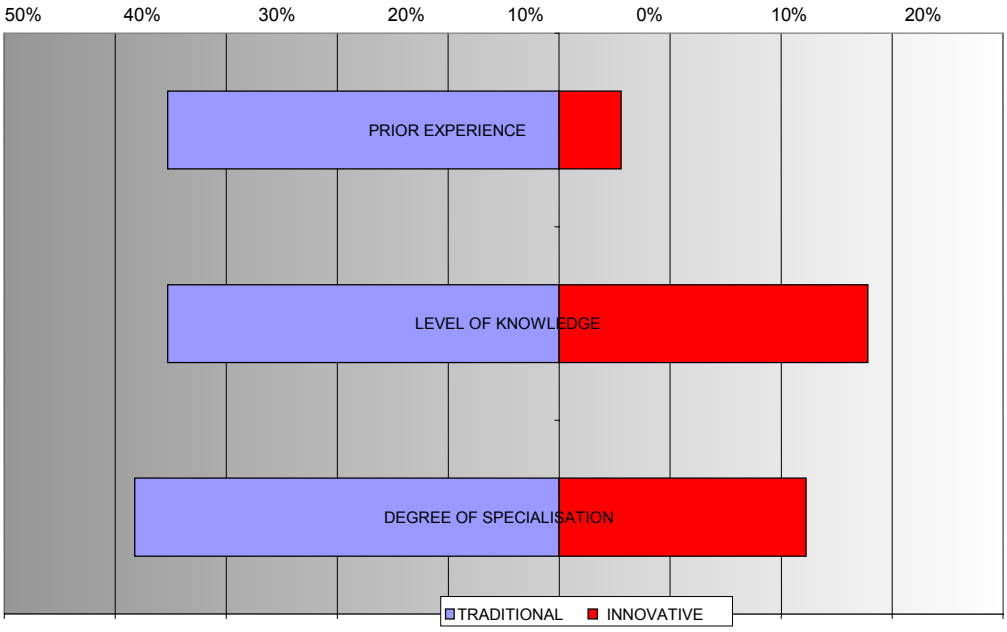



Figure 2.3 Percentage % of those enterprises that consider that the available manpower in the labour market of CM is adequate as regards the