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**Flexibility within vocational education and training in Sweden: The case of Advanced
Vocational Education**

By

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ABSTRACT *This study considers an on-going research project regarding the outcome of the Swedish reform of advanced vocational education (AVE) from a graduate perspective. Launched in 1996 as an experimental post-secondary reform meeting the advancements within working life, several new educational features were introduced. In January 2002 AVE became a regular part of the national VET system with 12 500 education places per annum. From start to present, over 6 100 students have graduated from the approximately 300 different national AVE programmes available. The purpose of this paper is to present results from an ongoing research project where three sets of telephone questionnaires collected in 1999, 2000 and 2001 surveying over 5 400 of the graduates concerning their opinions and experiences on how AVE corresponds to the demands and requests of themselves when entering the labour market. The aggregate results suggests that a majority of the graduates (82 %) had a job six months after having completed their AVE programmes, and that approximately 80 % of them were working, with regard to their educational focus, within a 'target' field of profession.*

1 INTRODUCTION

Over the years, research by social scientists studying the developments and use of new technology, integration of economies, merging of businesses into global networks, working conditions and labour legislation etc., has created a vast and important body of knowledge how western society transforms. In particular, studies of the synergetic effects of these various developments mentioned, often referred as *Megatrends* (Hodkinson & Unwin, 2002; Nijhof 2001; Tessaring, 1998, 2000), has provided important understanding of the structural forces that since the last 20 years or so have been restructuring the labour markets around the world. For example, the ‘information technology revolution’ (Castells, 1996), emphasised by the evolution of microelectronics, has not only reshaped production processes exemplified by the concept of flexible specialisation (Piore & Sabel, 1984) and work organisations such as the innovation of lean production (Womack; Jones & Roos, 1990), but strongly contributed to changing the occupational structures and skill requirements on the labour markets as well (Gallagher, 1997; Thompson & Warhurst, 1998; Ransome, 1999).

From a Swedish perspective, in the beginning of the 1990s it became evident that the general level of education within the workforce was lower than in most of other OECD-countries (SIND, 1991; SOU, 1992). A number of domestic studies showed that approximately 50 % of the Swedish workforce within the manufacturing industries only had compulsory school education (Aronsson & Sjögren, 1994; Ds, 1992). The accumulated need of upgrading the formal qualifications meeting the advancement within working life, coinciding with a deep economic recession in the early 1990s, indicated that the national education system including VET swiftly had to be reformed into a more flexible tool (SOU, 1995).

In response, the Swedish government launched in 1996 a new form of post-secondary vocational education called Advanced Vocational Education (AVE). With AVE several and for the case of Sweden new educational features were introduced. For example, not having the tradition with traineeship, with AVE it is required that one-third of the course programme time, which ranges between one to three years of length, is devoted to advanced application of theoretical knowledge at a workplace. The purpose is to provide a broad and more holistic approach in workplace-based learning and problem solving in an overall educational context. Second, in order to secure that programmes corresponds to actual needs by industry, the content and curriculum of AVE programmes are not decided centrally on State level, but de-

signed and implemented by regional or local education providers and enterprises in close co-operation. No professional degrees or vocations that requires national standards of certificates, for example, civil engineers, doctors, nurses, economists, are issued within AVE, that is the responsibility of the universities. Instead, graduates are expected to work as skilled craftsmen, experts or even to some extent as middle range managers. Third, every AVE programme are only permitted to start at maximum of five times where after its effect on the local and regional labour market is being evaluated by the National Agency for Advanced Vocational Education. If the demand appears to be fulfilled the AVE programme is terminated. Fourth, AVE programmes is not provided within a fixed institutional body. Instead, programmes are provided by various educationalists (higher education, upper secondary schools, municipal adult education and private training companies) depending on specific competences required or geographical location.

From 1st of January 2002, AVE became a regular part of the Swedish national VET system. The volume has grown considerably from 1 700 education places in 1996 to 12 500 at present distributed among the about 300 different AVE programmes available within twelve different industry branches reflecting the labour market. The expenditure for AVE is estimated to approximately 700 million SEK (77 million Euro) per annum (National Authority for Advanced Vocational Education, 2002). From its start to present, AVE empowers roughly 21 000 students of which over 6 100 of them have graduated and transitioned into the labour market.

1.1 Aims and research questions

Since the start AVE has been subject to several national research studies (Lindell & Svensson, 2002; SOU 1999a). In the most extensive, by the government commissioned evaluation study between 1996 to 1999, a research team from Luleå University of Technology (including the author of this paper) concluded that AVE had been rather successful in recruiting students, opening up companies for workplace-based learning, and enabling students finding jobs after graduation. The conclusions that we could draw of the latter result had however to be rather cautious due to the small sample of graduates available at that time (n= 1 124) (SOU, 1999b).

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The aim of this study is to continue where the research team stopped in 1999, surveying the opinions and experiences of students graduating in 2000 and 2001 considering to what extent

the AVE programmes are corresponding to the demands and needs put on themselves when entering the labour market. Moreover, the aim is also to see whether graduates' opinions about AVE has changed or remained constant over the years since this study incorporates and compare the results with the first student investigation in 1999 (SOU, 1999b).

This study addresses the following research questions:

- How many of the AVE students graduating between 1999 and 2001 has received a job and how many are still unemployed?
- To what extent does AVE graduates' work, according to their own perception, within a field of profession that corresponds to their educational training?
- To what extent does the graduates' perceive that the skills and competences provided by their AVE programme is relevant in their present job?
- To what extent does the graduates' perceive that their AVE-programme has rewarded them more qualified work assignment?
- To what extent does the graduates' perceive that their diploma from AVE has implied a salary increase?

Before presenting the results, a theoretical framework focusing on the challenges of linking VET reforms to fit the demands of the labour market is provided. The framework is thought of as an appropriate model of explanation in which the reform with AVE and the output result could be analysed.

2 CHALLENGES LINKING VET AND LABOUR MARKET NEEDS

The changes on performance of labour markets have consequently challenged the performance and design of the national systems of vocational education and training (VET). In their function as an instrument of employment policy, responding to economic and social change, the national VET systems are one of the first institutions to deal with the new situation (CEDEFOP, 2000).

From the theoretical underpinnings of educational attainment and economic outcomes, VET systems have a history of being regarded with scepticism and also being criticised by economists, particularly those coming out from a neo-classical tradition (Lindell, 2000). The argu-

ment for rejecting VET as hope of economic growth lies mainly in the basic principles of how VET is traditionally organised in comparison to how the labour market functions, neo-classical economists argue (Monk, 2000).

In the neo-classical perspective, the labour market is dynamic and very hard to predict. This implies that the principle of educating the appropriate numbers of student with the right mixture of skills who are ready to enter labour market in ways that bring supply into balance with demand often will fail. Thus, the core argument that proponents of neo-classical economics theory suggest is to recognise the incapability of society to anticipate long-term labour market needs, and thus should not sequence highly focused educational activities towards those anticipated needs, as commonly are the main target VET.

Instead, neo-classical oriented economists, notably proponents of human capital theory place emphasis on types of education that is more broadly instrumental promoting versatility and resiliency, hence enabling students moving from job to job. As a result of this kind of thinking the human capital economists tends to see academic forms of education as the better hope of economic growth (Becker, 1964/1983).

The empirical literature and much of the research, particularly in the United States, supports the neo-classical argument. According to several studies (Monk, 2000), VET tends to be more costly to perform compared to more academic oriented education. The findings also suggests that students who receive vocational education do enjoy more modest economical and social returns, considering both costs and streams of social benefits, than do students who receive more academic education. The findings are, however, ambiguous, with respect of how the rates of return are conducted in the education sector. There are also empirical findings suggesting that employers tend to value occupation specific skills and are not keen to rely on students with solely generic skills.

Based on the empirical findings, three strategies on how to organise and improve the economical rate of return with VET are suggested. The first thing is that because it will probably become even more difficult to anticipate labour market skills in the future, vocational education must be connected to the real world outside classrooms. Second, since the labour markets are fluid, the VET systems must continue to evolve and thereby provide students with the

skills they will need to take the next steps in their careers. The findings are suggesting the importance to open up and introduce elements of both academic and vocational curricula into a common course. Third, there is a need to develop an appreciation for learning and boost the self-confidence to the students to become lifelong learners (Monk, 2000).

3 METHOD AND DATA COLLECTION

All three investigations of the former students' encounter with the labour market were carried out by Statistics Sweden by means of telephone questionnaires. Luleå University of Technology (LUT) designed the questionnaire in co-operation with Statistics Sweden. The selection criterion was that the graduates had to have completed their AVE at least six months prior the time of the interview.

The first questionnaire study (1999) began the 23 February 1999 and was completed the 5 May of the same year. The population consisted of 1 293 students. Of these a total of 1 124 students answered the questions thus giving an answer percentage of 87 percent. The number of no-response was 13% or 167 individual.

The second investigation (year 2000) was performed during the period 13 January to 10 March 2000. The population amounted to 1 499 persons. Of these, 1 362 people answered the questions which gave an answer percentage of 90.8 %. The number of no-response came to 9.2 % or 137 people.

The third study (year 2001) of students within AVE was carried out during 11 September to 30 November 2001. This time the population amounted to 3 321 people. Of these a total of 2 952 people answered the telephone questionnaire thus giving an answer percentage close to 89 % (88.8). The no-response totalled 12.2 % or 369 people.

Table 1 Size of subject group, no-response and answer percentage

	1999	2000	2001	Sum total
Population	1 293	1 499	3 321	6 111
No-response	167	137	369	673
Answered	1 124	1 362	2 952	5 438
Answer percentage (%)	87.0	90.8	88.8	89.0

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

Taken together as table 1 shows, the total population of graduates for this study amounted to 6 111 people. Of these a total of 5 438 persons answered the telephone questionnaires giving a response rate of 89.0 %. The total of no-responses amounted to 11 percent or 673 persons.

3.1 Distribution of this study with regard to gender, educational focus and age category

An important aim with the introduction of AVE was also to break traditional patterns of sex-typed choice of profession. Therefore, it is interesting to see how the population of graduates are distributed with regard to men and women.

The aggregated result shows that there differed only a tenth of a percent between men (50.1 %) and women (49.9 %) among the graduates. However, the picture of sexual equality changes when the results are broken down and distributed by the graduates' choice of educational focus divided into the twelve different industry branches of AVE as shown in table 2.

Table 2 Educational choice of graduates distributed by branches of industry. Amount and percentage. Number of women (w) and their aggregate proportion within [square] brackets

Industry branch	1999		2000		2001		Sum total	
	Amount (w)	%	Amount (w)	%	Amount (w)	%	Amount (w)	% [w]
Construction	35 (5)	3.1	76 (10)	5.6	131 (25)	4.4	242 (40)	4.5 [16.5]
Economics	221 (125)	19.7	173 (111)	12.7	487 (318)	16.5	881 (554)	16.2 [62.8]
IT	183 (62)	16.3	343 (146)	25.2	802 (373)	27.2	1 328 (581)	24.4 [43.7]
Agric. & Forestry	70 (7)	6.2	32 (9)	2.4	93 (40)	3.2	195 (56)	3.6 [28.7]
Food industry	18 (9)	1.6	25 (14)	1.8	33 (17)	1.1	76 (40)	1.4 [52.6]
Environment	48 (33)	4.3	56 (42)	4.1	88 (61)	3.0	192 (136)	3.5 [70.8]
Transport	65 (34)	5.8	85 (45)	6.2	180 (70)	6.1	330 (149)	6.1 [45.1]
Manufacturing	234 (71)	20.8	298 (74)	21.9	298 (161)	18.0	1 064 (306)	19.6 [28.7]
Wood industry	34 (7)	3.0	19 (2)	1.4	19 (4)	0.6	72 (13)	1.3 [18.0]
Tourism	144 (114)	12.8	210 (169)	15.4	338 (253)	11.4	692 (536)	12.7 [77.4]
Healthcare	38 (36)	3.4	27 (26)	2.0	118 (108)	4.0	183 (170)	3.4 [92.8]
Other	34 (14)	3.0	17 (15)	1.2	131 (58)	4.4	182 (87)	3.3 [47.8]
Total	1 124	100	1 361	100	2 952	100	5 437	100

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

The results show that gender-stereotyped choice of professions has indeed continued and that the reform has failed adjusting the bias. As with the first study in 1999, the results show that of those that who graduated in 2000 and 2001, the portion of men was clearly dominant in the by tradition male industry branches of Construction, Wood, Manufacturing as well as Agriculture & Forestry. For example, within the industry branch of Construction, the aggregate results suggest that the proportion of men was as high as 83.5 percent (202 of 242). Conversely, the portion of women within the tourism branch was 77.4 percent (536 of 692), within environmentally focused education women portioned 70.8 percent and within Health-

care it was high as 92.8 percent (170 of 183 individual). Most equal distribution of sexes was obtained in the branches of Information technology (IT), Food, Transport and within the miscellaneous category Other.

Furthermore, it should also be noted that results from table 2 above indicates that the recruiting patterns into different industry branches, which was obvious from the first investigation in 1999, has not changed significantly in the subsequent years. The powerful increase in the IT branch from close to 17 % during 1999 to over 27 % in 2001 could however be noted.

With regard to distribution by age, as table 3 below indicates, there has been a significant displacement concerning age distribution of the graduated students. While the number of students between 16 and 24 years came to nearly 2 % (1.8) in the 1999 investigation, in 2001 the same age category consisted more than one fifth (21.4 %) of those questioned.

Table 3 Age distribution of AVE graduates. Amount and percentage

Age	1999		2000		2001		Sum total	
	Amount	%	Amount	%	Amount	%	Amount	%
16 – 24	21	1.8	160	11.8	631	21.4	812	14.9
25 – 34	846	75.3	862	63.3	1 648	55.8	3 356	61.7
35 +	257	22.9	339	24.9	673	22.8	1 269	23.4
Total	1 124	100	1 361	100	2 952	100	5 437	100

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

Correspondingly, students in the age group 25 to 34 years decreased from over three quarters (75.3 %) at the 1999 investigation to 55.8 percent at the time of the 2001 inquiry. From the combined picture it is obvious that this age category still dominates by 61.7 percent. The portion of students of 35 years and up appears to be more stable showing small changes over time.

4 RESULTS

The results of the first investigation in 1999 suggested that graduates had been rather successful in finding jobs after examination (SOU 1999b). Against the theoretical framework focusing on the economic returns of VET and the neo-classical economic ideas of how VET ought to be designed, it is rather interesting to see whether AVE has continued to meet the demand and become wanted by industry.

4.1 Employment situation

From table 4 below it can be seen by looking at the aggregate results that about 77 % (77.4) of the graduates responded that they were Employed and that 5.2 % of them were Self-employed, which means that close to 83 % (82.6) had at the time of investigations found work. The results also reveal that 10.2 % of the graduates had difficulties finding a job and that 8.1 % of the graduates had continued studying at University level.

Table 4 Employment situation six months after completed studies.
Number and percentage [1]

Activity	1999		2000		2001		Sum total	
	Number	%	Number	%	Number	%	Number	%
Employed	845	75.2	1 013	74.4	2 350	79.6	4 208	77.4
Self-employed	50	4.4	84	6.2	150	5.1	284	5.2
Unemployed	153	13.3	162	11.9	240	8.1	555	10.2
University	82	7.3	105	7.7	253	8.6	440	8.1
Remainder	1	0.1	0	0	3	0.1	4	0.1
Total:	1 131	100.3	1 364	100.2	2 996	101.5	5 491	101.0

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

A comparison between the different investigations shows that the number of employed had steadily risen from 1999 at 75.2 %, to 2001 at 79.6 %. This trend also applies to the number of those studying at tertiary level, revealing an increase from 7.3 % during 1999 to 8.6 % in 2001. Consequently, the results show that the proportion of unemployed had dropped from 13.3 % in 1999 to 8.1 % during 2001.

Distributed by gender, the aggregate findings show that of those that had work, 76.8 % of men were employed and 6.3 % had their own business. The proportion of employed women was 78.0 % and self-employed was 4.1 %. Distributed by age, of those in work the aggregate results show that the largest portion was within the age category of 25-34 years (80.1 %) while the greatest portion of self-employed was within the age category 35 years and older (8.7 %).

Distributed by educational focus of training, the results show that it was primarily those trained within Economics, Manufacturing, Transport and IT who were employed. Conversely, it was harder for those educated within Environment, Wood industry and the category Other to find employment. The largest proportions of self-employed were among those educated within the branches of Agriculture and Forestry, Construction and Healthcare, all having higher proportions of self-employed than within the branches of Economics (3.6 %) and Information technology (IT) with 5.9 %, which is rather surprising since the latter ones

are regarded as one of the cornerstones in the evolving service-based economy. It must also be said that some of the branch groups are extremely small which makes it difficult to draw general conclusions.

4.2 Employed within ‘target’ professions

It is not only important to see whether AVE graduates are employed; it is also important to determine to what extent graduates actually work within a ‘target’ profession, *i.e.*, having a job in the same industry branch as that for which they were educated, as this was one of the fundamental goals of AVE.

The aggregated result shows that the proportion of graduates having a ‘target’ job is high, with close to 80 % (79.8). When comparing the various investigations, which is done in table 5 below, the results show that the lowest number of students active within their relevant field occurred in 2000, with a percentage of 77.7 %. However, the result found in the first investigation in 1999 of nearly 84 % was not exceeded.

Table 5 AVE graduates working within ‘target’ professions
Number and percentage

Answer	1999		2000		2001		Sum total	
	Number	%	Number	%	Number	%	Number	%
Yes	751	83.9	852	77.7	1 979	79.3	3 582	79.8
No	141	15.8	244	22.3	517	20.7	902	20.1
Don’t know	3	0.3	0	0	0	0	3	0.1
Total	895	100	1 096	100	2 496	100	4 487	100

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

Distributed by gender, the aggregated results show that 67 % of men were active within a relevant field while the corresponding statistic for women was slightly lower at 64.8 %. Age-wise, the results show that it is primarily those in the age category of 25-34 years (68.7 %) who are most active within their relevant area of vocation. In the age category between 16-24 years, about 60% worked within the ‘target’ field. Similarly, for those who at the time of investigation were 35 and older, the proportion of working within a relevant field rose to 62.3 %. It can therefore be seen that it is the youngest group of students that most often ends up outside their intended profession.

Finally, distributed by educational focus of training, the results show that graduates trained within IT, Transport and Healthcare are those with the highest proportion working within a target profession. By contrast, graduates with the lowest proportion working in a relevant

profession were found within Environment and Wood industries. In this case, however, the branches mentioned all consisted of very small sample groups ($n \leq 15$) so it is necessary to be careful in drawing firm conclusions.

4.3 Relation of skills and competences to requirements

If graduates have a job and are working in a field relevant to their former training, an equally important question is whether the skills and competences provided within AVE programmes actually correspond to their everyday needs. This was another key goal of the reform and one of the major reasons for decentralising planning and designing of AVE programmes down to regional and local educationalists and enterprises.

Table 6 Graduates' appraisal of the content of AVE programmes compared to what they currently need in their jobs. Number and percentage

Answer	1999		2000		2001		Sum total	
	Number	%	Number	%	Number	%	Number	%
Yes	569	75.9	591	71.3	1 423	75.2	2 583	74.4
No	173	23.1	174	21.0	340	18.0	687	19.8
Don't know	8	1.0	64	7.7	129	6.8	201	5.8
Total	750	100	829	100	1 892	100	3 471	100

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

As shown in table 6, the results suggest that approximately 74 % (74.4) of those employed or self-employed consider that the AVE contents provided do correspond to their competence demands, which can be seen as a good result. At the same time, close to one-fifth (19.8 %) of those questioned stated that the training within AVE did not meet their expectations. Further, nearly 6 % (5.8) of those questioned were uncertain. The results also show that the perception of the programme's content-relevance has remained moderately stable between 1999 and 2001. The highest percentage of satisfied students occurred in 1999 where 76 % (75.9) answered 'Yes' and was nearly repeated in 2001 with 75.2 %.

In terms of the graduates' perceptions, when distributed by gender, the results show that the proportion of men and women indicating that the education and training met their needs was equal at 47.5 %. However a slighter higher proportion of men were displeased with the training (13.5 %) compared to 11.4 % of women. By age, the results show that those of age group 25-34 years were both most satisfied (49.4 %) but simultaneously most critical (13.5 %) about the relevance of the education and training.

4.4 Work assignments

The general purpose of AVE was to educate people with specialised ‘know-how’, which was and eventually still is in short supply. One way of considering whether AVE programmes meet the graduates’ needs and requirements is to determine the extent to which graduates think that their training has actually rewarded them jobs with more qualified work assignments.

Table 7 Perception that AVE contributed to more advanced work assignments.

Answer	1999		2000		2001		Sum total	
	Number	%	Number	%	Number	%	Number	%
Yes	659	73.7	655	61.2	1 595	64.7	2 909	65.7
No	187	20.9	251	23.4	496	20.1	934	21.0
Don't know	48	5.4	165	15.4	375	15.2	588	13.3
Total	894	100	1 071	100	2 466	100	4 431	100

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

From table 7, the aggregate results show that just over 65 % (65.7) of those questioned considered that their training had in fact contributed to more advanced and interesting job assignments. A comparison between the different investigations shows, however, that this perception decreased from the study in 1999 where close to 74 percent (73.7 %) of the participants felt that their training had contributed to their having more interesting work tasks down to slightly over 64 percent (64.7 %) in the 2001 investigation. From the same table it can also be deduced that just over a one fifth (21.1 %) did not think that the AVE programme had benefited their working life development.

In comparison between the investigations, the portion of critical persons remained stable throughout. It is also shown that a total of 13 % (13.3) of those questioned were uncertain, a relatively large portion. This could possibly be due to the fact that those in this category are in their first jobs and have nothing to compare with.

Distributed by gender, the aggregate results of the three investigations show that a somewhat greater portion of men (54.7 %) than women (52.3 %) considered their training to have contributed to more interesting job assignments. On the other hand, the proportion of men who were critical was also somewhat larger (17.4 %) than the proportion of women (16.9 %).

Distributed by age, the combined results show that, of those questioned, the most satisfied were among the age bracket 25-34 years (56.3 %) while the largest proportion of displeased

graduates was among the category 16-24 years (22.7 %). Distributing the results by graduate's educational focus of training, the results show that it was those educated within IT, Healthcare and the category, 'Other', who felt their training had contributed to more interesting working assignments. By contrast, graduates whom least felt that their training would lead to more interesting or more advanced work tasks were found within the industry branches of Environment and Agriculture and Forestry.

4.5 Economic return of AVE

Asking the graduates about salary structure can portray another aspect in the question of how AVE has been received and 'rewarded' by the labour market. In our first investigation of 1999 the average value where almost 56 percent (55.9 %) of those questioned felt that they had received a higher salary due to their education and training which is not especially high with thought to the fact that the students usually finance themselves through study loans. Against this background it is interesting to see whether this changed over time.

Table 8 Perception that AVE caused higher salaries. Number and percentage

	1999		2000		2001		Sum total	
	Number	%	Number	%	Number	%	Number	%
Yes	499	55.9	524	48.5	1334	54.1	2357	53.1
No	341	38.2	400	37.1	761	30.9	1502	33.8
Don't know	53	5.9	156	14.4	371	15.0	580	13.1
Total	893	100	1080	100	2466	100	4439	100

Source: Statistics Sweden & LUT 1999, 2000 and 2001.

The aggregate result shown in table 8 indicates that just over half (53.1 %) of those questioned perceived that their diploma from AVE had in fact contributed to them earning a higher salary. Conversely, about one third (33.8 %) of the graduates did not think that the programme had contributed to a higher salary, which is a small improvement compared with the 1999 investigation, but still a rather poor result considering that the majority of students incurred a study loan. The rather high rate of uncertainty (about 13 %), could be the result of this job being their first real job or that the graduates have moved into a new occupational field and thus comparisons with former salary levels are not possible.

Distributed according to gender the aggregate results indicate that 45.1 % of men felt they had received a salary increase while 26.9 % did not. The proportion of those pleased among the women was a bit less, where 41.5 % perceived that they had received higher earnings while 28.3 % did not. The results also depict salary differences according to age category. The greatest portion of those asked who felt they had received a higher salary payment was found among the age category of 25-34 years (46.5 %), followed by those of 35 and older (42.1 %).

Distributed by educational focus of training, the results suggest out that it was above all those educated with IT, Transport and Economics who received an increase in salary. The lowest portion of those who felt their education had been of benefit to their salary existed among those in the industry sectors of Wood, Tourism and Environmental.

5 CONCLUSIONS

This study has considered the results from an on-going research project surveying the experiences and opinions of some 5 400 students that have so far graduated from Swedish AVE. The aggregate results indicate that close to 83 % had at the time of the investigations found a job and that a majority (about 80 %) of the graduates' were working within a profession corresponding to their educational training within AVE, and that nearly 75 percent (74.4 %) had use of the skills and competences they were taught in their current job.

Taken together, the preliminary results suggest that the educational features introduced with AVE, which is heavily influenced by neo-classical economical thought (Monk, 2000), are successful when tested in working life. Based on the results, it appears that the educational and organisational ideas of closer integrating school- and workplace-based learning, decentralising the responsibility of designing programmes down to local level educationalists and represents of industry, combining of curriculum and providers of training from different education bodies, together appears to have a positive effect with regard to how graduates are welcomed and coping on the labour market, according to their own statements.

However, even though these initial results that AVE has implicated a new thinking within Swedish VET towards bridging the gap between school and working life, there is still much research to be done. For example, there is no research at present showing what forms of employment that dominates or what terms of employment conditions apply for AVE graduates. Therefore it is important to continue studying the development within AVE with view to what happens to the students after graduation, not least of all concerning employment and working conditions as well as terms for human resource development at the work place.

ENDNOTES

[1] Amount and percentage in Table 4

That table 4 accounts for more graduates than were included in the investigation is a result of the case of a number of students within colleges also being registered as job seekers.

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