



Note no2

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Logistics competence - demand vs supply

Logistics is a growing industry sector with a good potential in Östergötland. The continued growth is however dependent on a supply of an educated workforce. There have been indications from the industry about the difficulties of finding qualified personnel in some areas within logistics. This might become a problem for the continued regional growth, and therefore this study has been initiated, with the purpose of mapping supply and demand of an educated workforce in the area of logistics. The question for regional development partners is, do we support the educations where there is a need in industry? There has been concerns raised in other business areas that the educations is too much focused on theoretical high level educations, rather than on skill developing educations that are needed in industry. Is this the case in the logistics area as well.

The main motorway and railway between Copenhagen and Stockholm cross the region and offer a strong backbone for the infrastructure. The harbour of Norrköping is one of the main harbours in Sweden and there are two airports in the region.

The region is ideally located in Northern Europe in terms of proximity to resources and markets. Two thirds of the Swedish market is less than two hours drive away, providing a stable base for further expansion into other parts of Northern Europe, including the Baltic Sea market of more than 80 million people.

Östergötland is a centre of excellence for aerospace, communications technology, software development and electronics. Recently, Östergötland has taken a strong international position in the field of home communications and life science technologies. The modern, interdisciplinary university with 26,500 students that offers world-class education and research is one of the cornerstones in East Sweden's positive development.



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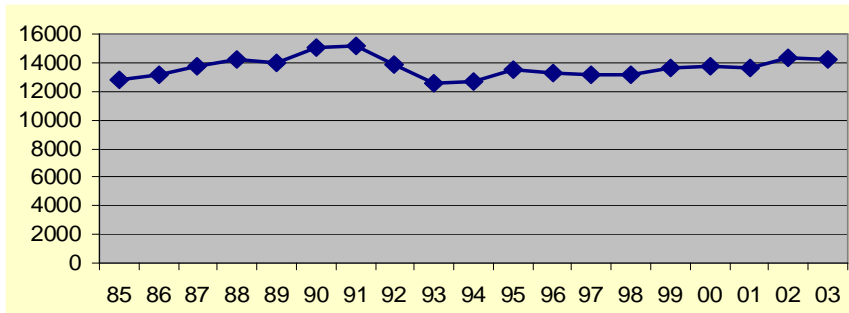
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Östergötland

Östergötland has 415,000 inhabitants and is located in the southeast of Sweden, only two hours south of Stockholm and three hours northeast of Gothenburg. Östergötland includes the cities of Linköping and Norrköping, which together form the fourth largest urban area in Sweden. The surroundings offer a beautiful scenery including both archipelago, coast, forest and flat country. The whole area includes thirteen municipalities who are co-operating extensively to strengthen the development in the area. Good communications is a key factor for the area.

Number of employees

Today 14,000- 15,000 persons are employed in distribution or transport companies in the region. The number of employees has been relatively stable during many years. Since 1993 there has been a constant growth. The figure shows number of employees in distribution and transport companies until 2003. After that there has been a continued growth.



Number of employees in trade and transport in Östergötlands län

Source: SCB



The logistics potential of the region

Logistics is strategically important for the region, but the place is also considered as a good place to establish logistics centres. The metropolitan area of Norrköping/Linköping have been ranked as number two in a comparison between all regions in Sweden (Intelligent Logistik). The last 3-5 years several companies have placed distribution centres in this area, especially in Norrköping.

The metropolitan area has a very good geographical position situated close to the center of population gravity. All four modes of transportation (air, rail, road, sea) are available.

Linköping University is one of the leading universities in Sweden in the area of logistics. A recent study (done by Proffice) on the need of new employees in the logistics, transport and trade industries, show that Linköping/Norrköping has a substantially higher need of new employees compared with similar metropolitan areas as well as compared to the whole of Sweden.

Education in the region

There are a number of different educations on university level as well as on basic educational

levels. This education prepares the student for work on different places and levels in the company. The division used in the report is strategic, tactic and operation level. Typical for the strategic level is a logistics manager in large manufacturing company, who will probably have a degree in engineering and is an example of an education on the strategic level. A person working with purchasing will probably have a medium range education on a tactical level. On the other hand professional drivers of trucks, trains and so forth are on the operational level.

Strategic level: 390 students

Communication and transportsystems, civilingenieur (KTS) (180 p) Norrköping - 60 students
Content: Focus on creating intelligent transportsystems and to manage goods and transport flows as efficiently as possible.

Industrial Management - international programme (ii) Civilingenieur (180 p) Linköping - 50 students.
Innehåll: Focus on industrial management, including logistics, production management, industrial marketing, project management and other logistics related areas, with a possibility to specialize in logistics by taking a one year course.

Industrial Management - (I) Civilingenieur, (180 p) Linköping - 140 students.
Content: Focus on industrial management, including logistics, production management, industrial marketing, project management and other logistics related areas, with a possibility to specialize in logistics by taking a one year course. The difference from the international programme is that there are no language studies required.

Business administration - 160 p Linköping - 120 students
Content: Focus on management, accounting and other areas in traditional business administration.

Technical logistics, högskoleingenjör 120 p Norrköping - 20 students
Content: Focus on creating efficient logistics solutions taking environmental concerns into consideration. Focus on managing material flows.

Tactic level: 50 students

Business logistics (KY-utbildning, 80 KY-poäng) 30 students
Content: Focus on theoretical as well as practical knowledge, for example in the areas of warehouse management, transport fleet management, and distribution management.

Purchasing management (KY-utbildning, 80 KY-poäng) 20 students
Content: Focus on the purchasing departments activities.

Operative level: 161 students

Train driver - (40 KY-poäng) KY-utbildning Mjölby (25 students)

Professional lorry drivers - Komvux Norrköping (TUC) 32 students.

Bus driver - Norrköping (TUC)- 64 students

Transportation - Gymnasieskolans fordonsprogram - Norrköping, 48 students, Motala, 10 students)

Airplane pilot/ Kungsängen (fristående gymnasieskola) Kungsair Training Norrköping. (few students)

Trade with focus on purchasing and logistics - Kommunal vuxenutbildning 45 veckor - Norrköping. (?? students)



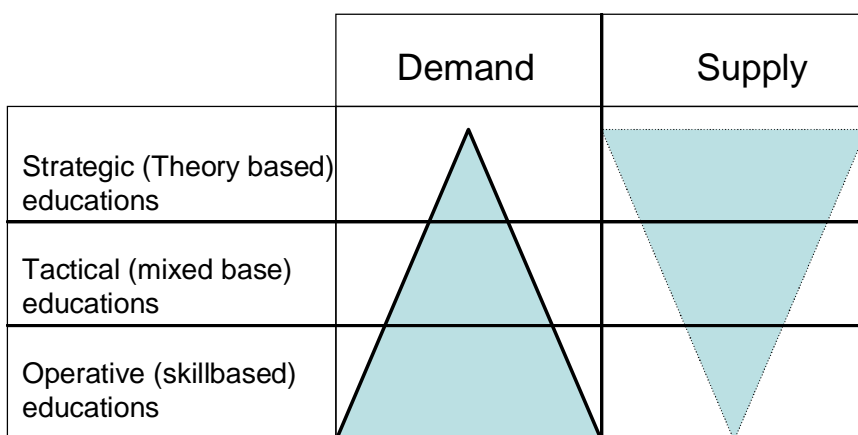
Conclusions

All three levels are important for the development of the region. Even though the academic system often see the strategic level as more important, for regional development this is not the case. The education and the number of student studying on the strategic level is good. The university recruit students from all of Sweden and many of them will leave the region upon finishing their studies. Counting the number of jobs there are substantially more jobs on the tactical and the operative level, but there are fewer students.

As an example the need for professional drivers have been thoroughly investigated (together with TYA) and the need is estimated to be aprox. 300-400 drivers a year in a few years time. The need is estimated based on the number of vehicles in the region and is supported by the age structure of the drivers currently employed. Today a total of 72 students a year are educated. There is a large difference between the estimated need and the number of students in the years to come.

About the author

Håkan Aronsson (MSC, PhD, Linköping University, Sweden) is an Assistant Professor in Logistics Management at Linköping University. His research includes logistics performance measurements, design of logistics systems and development of logistics indexes. Before re-entering the academic stage for PhD, Aronsson spent six years as financial controller focusing on change management issues in public healthcare.



Mismatch between theoretical and skillbased educations. Over supply of theoretical educations and a under supply of skillbased educations.



Developing Regions through Spatial Planning and Logistics & ICT
Competence - 2006-2007

Baltic Sea Region INTERREG III B, Neighbourhood Programme
Measure: 2.2. Creating sustainable communication links for improved
spatial integration
Community Initiative Programme 2000-2006

LogOn Baltic aims at improving spatial integration by transferring knowledge in ICT and logistics competence.

The main objective is to produce and disseminate information for regional development agencies on how to support enterprises in the participating regions in their effort to improve ICT and logistics competence, thus improving regional development.

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