

Kapittel 15

Comparing career preferences of regionally oriented and internationally oriented students

– *A mixed methods study*

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SAMANDRAG Formålet med denne studien er å få innsikt i preferansane til den framtidige arbeidsstyrka i regionen. Gjennom fokusgruppeintervju og ei spørjeundersøking undersøker vi kva som er dei viktigaste faktorane for studentar ved val av framtidig arbeidsplass og kor vidt der er skilnadar i desse med hensyn til kjønn og mellom regional orientert og internasjonalt orientert studentar. Funna har viktige implikasjonar for rekruttering i regionar som har utfordringar med hjerneflukt.

ABSTRACT The aim of the study is to gain an insight into the preferences of the future workforce in the region. Through focus group interviews and a survey, we examine the most important factor for students when reflecting upon future workplaces and whether there are differences in these in terms of gender and regionally oriented and internationally oriented students. The findings have important implications for recruitment in regions that are facing issues in terms of brain drain.

NØKKEORD Karrierepreferansar | rekruttering | internasjonalisering | kombinert metode

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INTRODUCTION

Having a competent and highly skilled work force is seen as vital for the development of both organizations and regions. Retaining and attracting highly skilled workers is however a major challenge for many regions in times of increasing centralization and urbanization (Statistics Norway, 2017a). This is also the case for Møre & Romsdal (M&R), which is the context of this study. Industry in M&R is transforming from resource-based to more knowledge-based and organizations report an increasing need for high skilled and well-educated employees (Båtevik & Tangen, 2010; Båtevik, Yttredal, & Hanche-Olsen, 2013). The same organizations are also reporting that it is ever more demanding to recruit such employees in M&R, since the county has a relatively low share of inhabitants with higher education compared to other counties. The general education level in M&R is increasing, but the county is still facing brain drain issues, as young people move away to study and do not return.

Higher education institutions have been found to play an important role in this regard. Empirical evidence suggests that regional higher education institutions contribute to attracting students from other regions, and that both students who have grown up in the region and those that move there to study have an increased likelihood of working in the region after graduation (Sæther et al., 2000; Arnesen, 2003; Gythfeldt & Heggen, 2012). Hence, regional higher education institutions can contribute to building human capital both by increasing brain gain and decreasing brain drain. Having a certain level of brain circulation is also important for accumulated human capital. Students' international mobility has for example received increased attention in the recent decades, as international experience is considered to be valuable for both individuals, higher education institution, and employers (Paige et al., 2009; European Commission, 2014). Students who move abroad can bring back new ideas, skills, and perspective, which their home regions can benefit from.

Hence, in order for a region to build human capital it is essential to decrease brain drain, while increasing brain gain and brain circulation. When aiming to

recruit employees with higher education, it is critical to know what matters to these individuals. While urbanism, nature, and social network all can be central factors, research has shown that it is actually the characteristics of the job itself that is of most importance (Grimsrud, 2011; Niedomysl & Hansen, 2010). This was also found to be the case among those with higher education who had moved to or from M&R (Grimsrud, Båtevik, and Giskeødegård, 2015). The job itself and opportunities for career development was in fact more important than qualities of the place.

The characteristics of a job is accordingly of major importance when recruiting employees with higher education. Little is however known about which characteristics of a job that matter to these potential employees. This is critical to know for organizations when recruiting. To shed light on this important aspect, this study takes the view of students in M&R and set out to explore the career preferences for current tertiary students in the region. Understanding their preferences is critical when adapting recruitment communication in order to retain graduating students in peripheral regions facing challenges of brain drain. Further, it is also vital to get students who move abroad and gain international experience to consider moving back. Hence, we are also interested in examining whether there is a difference between students who are prefer working in the region after graduation and those who see living abroad as an option. Therefore, the study seeks to answer a twofold research question:

1. *Which factors are of importance for students when considering prospective careers?*
2. *Are there differences in the preference of regionally oriented and internationally oriented students?*

Hence, this study focuses on students' perception of the importance of different career factors among second year students at NTNU in Aalesund. We employ a sequential exploratory mixed methods design, where we first explore important career factors through focus group interviews. Subsequently, a conjoint analysis survey is conducted to test the relative importance of career preferences identified in the focus group interviews. We further examine whether there are group differences depending on location preference. The paper's main contribution is to provide insights about what matters for these potential future employees and thereby inform organizations about how to adapt communication in their recruiting. For example, how should one communicate if the aim is to recruit students who are consider staying in peripheral regions such as M&R after graduation? And should

recruiting be communicated differently when attempting to attract regional students with international experience back to the region?

In order to explore these issues, the paper proceeds as follows: In the next section, the context of the study is elaborated bringing in theory on human capital, the role of regional higher education institutions, and student mobility to describe recruitment challenges in M&R. We thereafter introduce our methodological approach, before our qualitative and quantitative findings are presented. The paper concludes with a discussion of the findings, a conclusion and its implications and limitations.

THE CONTEXT – RECRUITMENT CHALLENGES IN M&R COUNTY

M&R is a strong industrial region and is one of Norway's major exporting counties due to industries within fishery, maritime sector, and furniture. In 2016, the value of exports from M&R was over 39 billion NOK (Statistics Norway, 2017c). The regional industry has traditionally been resource-based, but is increasingly becoming more knowledge-based (Båtevik & Tobro, 2011). This shift brings about challenges for both public and private sector in M&R with regards to recruiting employees with higher education.

The general education level in M&R is increasing. In 2012, 24,4 % of the population had higher education, while the percentage had increased to 27,5% in 2016 (Statistics Norway, 2017b). However, the county is still below the Norwegian average of 32,9%. In 2016, 23,4% of the Norwegian population had shorter tertiary education (less than four years), while 9,5% had longer tertiary education (four years or more). The corresponding numbers for M&R county were 21,7% for shorter tertiary education and 5,5% for longer tertiary education.

M&R county is accordingly in a situation where the industry is becoming more knowledge-based, at the same time as the higher education level in the population remains below the national average. The consequences of not finding qualified personnel can be critical for a region's competitiveness. Retaining and attracting highly skilled employees has accordingly received considerable attention in M&R in the recent decade. Båtevik & Tangen (2010) addresses this in a study that map the recruitment needs of 105 organization in private and public sector in 2009. They argue that lack of qualified labor is one of the most substantial challenges for industry development in M&R and the 105 organizations highlight a substantial need for recruit employees with tertiary education within the next 10 years. They are however struggling to recruit such employees. Organizations in the public sector report that their strength when recruiting is their working environment

and their opportunities for professional development, while they perceive their weaknesses to be salary conditions, reputation, small organizations and competition from other industries. The private sector also considers salary conditions to be their weakness. They perceive job security, professional development, reputation to be their main strengths in recruitment.

Consequently, organizations both within the private and the public sector in M&R are facing challenges in terms of recruiting qualified personnel to increasingly knowledge-based work places. While tertiary education level in M&R is low, this is further deteriorated by the fact that the region has net export of young people who move away to study and do not return (Båtevik & Tobro, 2011). Retaining regional students and students who have come from other regions, as well as attracting students who have moved away nationally or internationally, will accordingly be critical for the advancement of organizations in the region.

THE ROLE OF REGIONAL HIGHER EDUCATION IN BUILDING HUMAN CAPITAL

The economic performance of companies, regions, and nations is greatly dependent on access to a competent workforce. The knowledge, skill set, and competencies of individuals have value both for employers and for the economy as a whole. This lays the foundation for human capital theory, which predicts that individuals or groups with higher level of knowledge, skills, and other competencies will achieve greater performance than those with lower levels (Becker, 1994; Mincer, 1958). Education and training are seen as the most important investments in human capital (Becker, 1994). Having a highly skilled and well educated workforce is accordingly a vital driving force for regions and nations. In order to accumulate human capital in a region, it is critical both to avoid losing human capital through human capital flight and at the same time attracting human capital from outside the region. A brain drain region will accordingly be characterized by human capital flight and permanent loss of educated and highly skilled people. In contrast, a brain gain region is a region that attracts highly educated individuals and through migration enhances the region's accumulated human capital.

Regional higher education institutions play an important role in this regards, as knowledge transfer through education is a vital mechanisms for regional development (OECD, 2007; Jongbloed, 2010; Puukka & Marmolejo, 2008). Students acquire knowledge through education, which is subsequently absorbed via the regional labor market when graduates enter the regional workforce. In M&R, these institutions play an important role in providing advanced vocational educa-

tion and training in M&R (Asheim & Grillitsch, 2014) and it is consequently important to understand how to recruit students to the regional labor market after graduation. Previous research indicate that the characteristics of a job is the most important aspect in this respect (Grimsrud, 2011; Grimsrud, Båtevik & Giskeødegård, 2015; Niedomysl & Hansen, 2010).

STUDENTS' REGIONAL AND INTERNATIONAL MOBILITY

Several Norwegian studies have shown that regions benefit substantially from a regionally educated workforce. According to Sæther et al. (2000), regional higher education institutions enable a general increased recruitment to higher education in the region. At the same time they reduce brain drain as the migration of higher educated is significantly lower in regions that have higher education institutions. Furthermore, the institutions recruit students from other regions who end up staying after graduation. Arnesen (2003) supports these findings in a study that shows that 75% of nursing graduates and 55% of engineering graduates who originated from the region still live there 6 months after graduation. The corresponding percentage for graduated students from outside the region was 59% (nursing) and 28% (engineering). Gythfeldt & Heggen (2012) describe the same mechanisms through which regional higher education institutions can counteract brain drain and enhance brain gain. In their study, which included a sample of nursing graduates in Aalesund, they find that majority of graduates in welfare professions actually work in the same county as their education institution 2 years after graduation. 86,8% of graduates that had grown up in M&R still lived in M&R two years after graduation, while 51,3% of graduates from outside M&R were also still living here.

Thus, regional higher education plays an important role in influencing regional mobility of students to and from the region and can subsequently contribute to both increasing brain gain and decreasing brain drain. A third alternative for accumulating human capital is to enhance brain circulation (Ackers, 2005; Johnson & Regets, 1998; Beine, Docquier, & Rapoport, 2008). The concept of brain circulation indicates that migration is an on-going process rather than single permanent moves. Consequently, a region's human capital can be enhanced when highly skilled personnel temporarily move abroad and return with new ideas, skills, perspectives, and international networks. International student mobility is one way to enhance brain circulation and has received great attention in Norway in the recent decades. Norway has undertaken to the Bologna process and currently 15% of Norwegian students study abroad for 3 months or more during their bachelor or

master degree (SIU, 2016). The literature suggests that there are substantial benefits of participating in study abroad programs in terms of personal development, language competence and inter-cultural skills (Williams, 2005; Paige et al., 2009; Salisbury et al., 2013; European Commission, 2014). Such outcomes increase students' employability and benefit future employers. There is however evidence suggesting that there are differences between internationally oriented and non-mobile students already prior to travelling abroad for the first time (Zimmermann & Neyer, 2013). For instance, a recent EU study shows that Erasmus students had significantly higher levels of confidence, curiosity, decisiveness, serenity, tolerance of ambiguity, and vigour than the non-mobile control group prior to departure (European Commission, 2014). The factors were chosen due to their relevance for employability and Erasmus students showed a significant increase in all factors after studying abroad.

Thus, there appears to be a preexisting difference in terms of employability qualities before going abroad which further increases during a stay abroad. Consequently, both the outcomes of going abroad itself as well as the preexisting differences in employability qualities are valuable for potential employers and the students are accordingly attractive employees for their home regions. Because even though studying abroad increases the likelihood of living abroad permanently, the majority of study abroad students still end up working in their home country afterwards (Osterbeek & Webbink, 2009; Parey & Waldinger, 2010). There should accordingly be opportunities to attract students with international experience back to their home region, providing that employers are able to make attractive job opportunities visible.

METHODOLOGICAL APPROACH

Little was known about the studied phenomenon on beforehand and the study therefore has an exploratory approach. Figure 15.1 outlines the main phases in the research process.

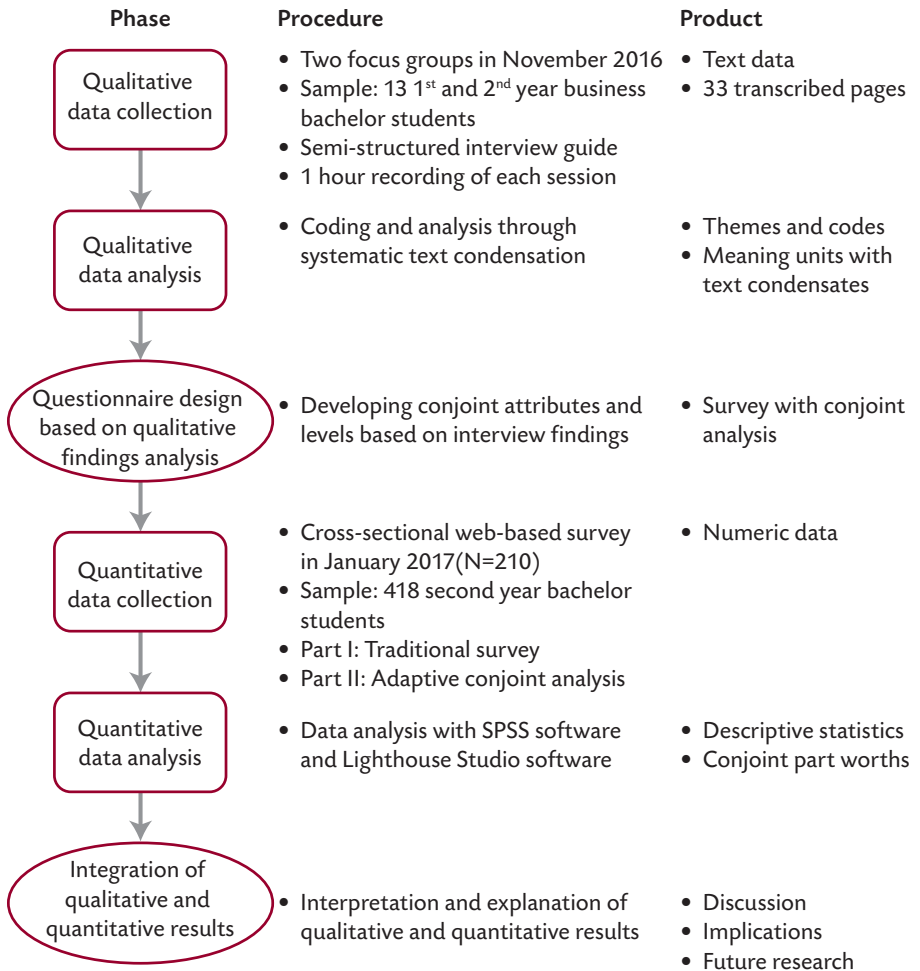


FIGURE 15.1 Sequential exploratory mixed methods research design

First, it was important to establish which factors that were seen as central for students when considering job opportunities. This was done in two focus group interviews which sought to identify important factors and how they mattered to students. Thereafter, the ambition was to test the relative importance of the identified job factors in a quantitative study to investigate the generalizability of our qualitative findings. Hence, the study applies a sequential exploratory mixed methods approach (Creswell, 2013) where the qualitative and quantitative data collection took place in two distinct phases. Qualitative and quantitative methods each have their particular strengths and weaknesses. By combining the two approaches, the goal was to draw from the strengths and minimize the weaknesses of both and

thereby provide a more complete understanding of the research question problem than either approach alone. The design provided us with rich data with both in-depth insight into students' reflections, as well as a broader view of student distribution through the quantitative study. Empirical data was collected among undergraduate students at NTNU in Aalesund in 2016/2017 through two focus groups interviews and survey that was sent out to students in their second year students.

STUDY 1: FOCUS GROUPS

The qualitative study included 13 first and second year bachelor students in business. Focus groups are particularly useful in attitudinal research, as the use of group interaction produces insights that would be less accessible without this particular interaction (Morgan, 1996). Accounting for attitudes can be easier when informants hear dissimilar attitudes from others or nuances of their own. Hence, through processes of association in group discussions they can better understand and explain their own perspective. Accordingly, focus groups were found to be an appropriate method to explore the phenomenon of students' career preferences.

We conducted two focus group interviews with respectively 6 and 7 students in each. The focal question was: «What will be important for you when applying for jobs and evaluating work offers after you finish your education?» Each focus group discussion was recorded and resulted in all together 33 pages of transcribed text. The students were also asked to rank the three factors that was most important for them from 1 to 3.

The text was analyzed using systematic text condensation, a descriptive and explorative method for thematic cross-case analysis developed by Malterud (2012b). Systematic text condensation takes Giorgi's phenomenological analysis as a point of departure. Malterud (2012a) argue that it is an appropriate tool for analyzing focus groups since it summarizes the participants' stories in a way that can lead to new descriptions of the phenomenon addressed. Hence, the analysis of the transcribed text followed the recommend four steps in systematic text condensation: 1) total impression – from chaos to themes; 2) identifying and sorting meaning units – from themes to codes; 3) condensation – from code to meaning; 4) synthesizing – from condensation to description and concepts. First, the entire text was read to get a general sense and overview of the data, while looking for preliminary themes. In the second step, the transcribed text was systemically reviewed line by line to identify meaning units, i.e. text fragments containing information about the research question, which were assigned a code. The third step implied systematic abstraction of meaning units within each code group as

meaning units were sorted into subgroups. The meaning units were further reduced into a condensate which according to Malterud (2012b) is «an artificial quotation maintaining, as far as possible, the original terminology applied by the participants». In the final step, the pieces were put together again by developing descriptions and concepts in an analytic text from the content of the condensates. The results from the synthesizing is presented in the result section of this paper.

STUDY 2: SURVEY: CONJOINT ANALYSIS

The survey was distributed to all 418 second year students at the business department, biology department, maritime department and engineering department at NTNU in Aalesund. After getting 235 questionnaires in return, 210 were found suitable for further analysis, resulting in a response rate of 50,2%. 52,4% of the respondents were males, while 47,6% were females. The response rate was respectively 43,3% for males and 60,9% for females. In terms of study program, 28,6% of the respondents were in business studies, 18,6% in maritime studies, 20% studied biology and 32,9% did engineering studies. The corresponding response rates were 57,4% for business studies, 37% for engineering studies, 57,4% for maritime studies, and 60,3% for biology studies. There were no systematic differences between study programs. However, there was a significant difference in two of the career preferences between males and females, which will be addressed in the result section.

The survey had two parts: a conjoint analysis and a standard questionnaire. The standard survey part of the questionnaire captured demographics. Since the ambition was to understand the relative importance of job factors, conjoint analysis was identified as relevant statistical technique to apply. Conjoint analysis enables us to go beyond simple survey rating scales, where it is possible for respondents to rate everything in the higher end of the scale. It is accordingly not possible to capture the trade-offs that underlie an actual choice in traditional survey scales. However, in a conjoint analysis, respondents are presented to partially profiled alternatives where they have to make a choice. How they rank different profiles reveals how they value different attributes when making decisions. Hence, conjoint analysis offers a technique to provide a more realistic approach to understanding respondents' decision-making processes and decompose the underlying structure of the decision policies (Orme, 2010).

The study made use of adaptive conjoint analysis (ACA), where students evaluated the attractiveness of different job opportunities composed of six different job attributes, i.e. income, work hours, location, job security, work environment

and possibilities for personal career development. Each attribute had three or four levels that had been developed with basis in focus group findings. The conjoint analysis resulted in values for the relative importance of each attribute and in part-worth utilities for attributes at the individual level.

RESULTS

This section sums up the results of the qualitative and the quantitative findings. First, we describe the qualitative findings for the six categories identified through the systematic text condensation. Thereafter, we present the quantitative findings acquired through the survey.

STUDY 1: QUALITATIVE RESULTS FROM FOCUS GROUP INTERVIEWS

The systematic text condensation identified six categories that the students described as particularly relevant when considering prospective work, i.e. income, work hours, job security, work environment, career development, and location. These are presented below with corresponding quotes from the students.

Attitudes to income

The students perceived income as important in the manner that it would have to be sufficient to cover basic living expenses. Having a very high salary in their first job was not very important to them, and they considered 450 000 NOK to be a good starting salary. Some also stated that they were prepared to aim lower in their first job and then work their way upwards:

Because I don't think you will get top positions when you are just finished with your education. You have to start a place and then gradually work your way up. And then the salary will follow your promotions.

The students emphasized that income could not be discussed in isolation, but was a trade-off between different aspects of a job. Some explained that they would be willing to accept a lower salary in return of having a secure and permanent position. Others highlighted that career opportunities and the possibility to achieve overtime payment would make them tolerate a lower starting salary. A high salary could also make up for other negative aspects of a job, as for example the reputation of a company or the perceived status of the job:

Well, I'm not sure if status is very important. Because I know people with a bachelor degree who are shop managers now. That is not a typical status position, but they earn really well. Much more than others in other occupations. So maybe the salary can make up for the fact that it is not really a status position.

Attitudes to work hours

The students stated that they were prepared to put in work effort beyond normal work hours when they start working after finishing their bachelors. Some expressed that it would not be a problem to work 50 hours for a week or two, as long as it was not the norm every week. Some emphasized that it was not a problem to work overtime as long as they had some co-determination in terms of at what time and that they still had some energy left for leisure time. Nevertheless, they acknowledged that it could depend on the general life situation:

I think it depends a bit on where you are in life in a way. If you have just finished your degree, then you could put in an extra effort. But if you already have a family, then you have to scale down a bit. So it depends a bit.

They were however a bit more sceptic to boundless working. Some stated that they would prefer to go home from work and not think about work anymore before the next day. They perceived it as a bit stressful to be accessible through phone and e-mail after work hours. Some had experiences themselves from summer and part-time work or had observed others in such positions. Some argued that then the job would more a lifestyle than just a position, but also expressed that working hard could be very rewarding when seeing results:

I experienced almost the same. I worked as a summer temp and one of my tasks were sales. Then I had to prioritize work. Then I knew that it was not an option to for example go out on town during the weekend. I had to be able to answer calls and e-mails. But it was motivating as well, to a certain degree. When you see the results at the end of the month and know that those numbers are actually your work effort.

Further, some students underlined the importance of compensation if they put in extra work hours. They preferred payment over taking time off in lieu of unpaid overtime and hoped that working overtime would give them career opportunities and a good reputation:

Which possibilities you have further in that company can be important. If you know that you have the possibility to work your way upwards, you could put in the extra effort. It's a fact that you need to have the opportunity to work a lot, especially in the beginning. To be able to sort of show what you are able to do and to use the knowledge you have.

Attitudes to job security

Some students emphasized the importance of job security when searching for work after education. They saw it as important that a company could provide a secure future and was not at risk of being shut down. They accentuated that they were thinking of the long term when searching for work and would like to stay at a company for several years. This was perceived particularly important when settling down and having a family:

I believe that a secure workplace is important. Like in 3 years, will the company have to disband workers? Is it an unstable market that fluctuates? Because if you are settling down and getting a family, then you are dependent on that you have a job where you know that you have work for the next five years or at least three years.

Several expressed concerns about being laid off and ending up in unemployment. For some, having a secure job was more important than having a well-paid job:

I would like to be able to endure insecure times. I do not need to for example earn over 500 000 NOK. So I would prefer stability in employment.

ATTITUDES TO WORK ENVIRONMENT

All students stressed the importance of job satisfaction at the work place when starting their careers. Having varied work tasks that were not too repetitive were perceived as attractive, as were the opportunity to use the knowledge they had acquired through their education. Being able to find their place in the company and seeing results of their work also contributed to this. Status was seen as less important. As long as they were happy with the job, it did not matter much what others thought. The most important aspect of job satisfaction was however relational in terms of work environment at the workplace and the relation to colleagues and management. Some expressed that they expected their colleagues to

be a major part of their social circle at a point and that getting along with their colleagues would be decisive for job satisfaction:

How your colleagues are, is the single most important thing for how much you enjoy working at a place.

The other way around, the students declared that working in a poor work environment would make them motivated for searching for a new job and that a poor work environment was one of the most important things to avoid when searching for work. The relationships to management was also pointed out as critical. Being seen, valued, respected and getting continuous feedback by management was considered positive. The students also emphasized that they would like their leader to be able to act as both a friend and superior. It was important for them to feel that they could approach their superior and that they knew each other well:

For me it would be ideal if I knew my superior or those who were in the management well. If I worked here, I would not like to have a superior in Oslo who never spoke to me or knew my name. That would not have been particularly motivating. So I would like to know who is responsible for me and I would like them to know who I am.

ATTITUDES TO CAREER OPPORTUNITY

Having the opportunity to learn new things and develop as a professional was mentioned as important for the students. They thought of this in terms of promotions within a company and not necessarily by changing jobs. In fact, some students expressed concerns regarding the increasing focus on promotions by changing jobs instead of being loyal and staying with a company. Further, some stated that they would be eager to prove themselves when starting a new job, and hoped that putting in effort early on would create opportunities for them later. Career opportunities were one of the first issues that were mentioned when we asked an open question on what is most important in a job:

Yes, I was just going to say the same. It is important to have career opportunities to build a career, to have opportunities for promotion, to increase the salary. To move forward and advance, to build oneself a name.

Trainee positions were pointed to as very attractive opportunities and a good way for organizations to recruit talents. A trainee position was seen as a signal that a company believed in you, but also had expectancies in terms of development and progression. It was perceived as positive that a trainee position made it possible to have training in several work tasks, within different departments and/or companies. The students emphasized that such arrangements would benefit both the trainee and employee by testing whether a job would be a good fit:

I also want to mention trainee positions. I don't know so much about it, but it sounds like a very good thing. And often it is more than one company involved in a trainee position. That's what I have been told at least. That is really very positive because you get to try out different things.

ATTITUDES TO LOCATION AND GOING ABROAD

The location of the workplace was also quite important for most students. Some clearly stated that it was important for them to get a job «as close as possible to where they grew up and their family lived.» Others were more motivated to move abroad:

I would like to move to either Germany or Denmark. I have had a goal and ambition to move abroad since I was 11 years old.

I would like to do that too. I have plans to work abroad. It is an opportunity to gain experience. To get to know other people and new cultures.

The majority of the students were however not eager to move abroad permanently. Some would not like to go abroad at all; others were more open to working abroad for a period and then returning to Norway:

Well, I don't have any particular plans yet, but I could imagine living abroad for a short period of time. But I want to move back to Norway. I want to end up living in Norway. Preferably in the region. I could perhaps move around in Norway, but I am not sure. Preferably in Møre and Romsdal somewhere, so I could go home and visit my family without having to travel by air.

Others expressed that it would be more motivating to move abroad for a period if it was part of an employment in a Norwegian company. Then they would have a withdrawal opening without losing their job if they – as a student articulated –

found out that they «liked whole grain bread and brown cheese better than noodles». Several saw it as an interesting opportunity to go abroad with a safe base and employment in a Norwegian company and also consider it to be positive if an employer had international ambitions:

But if you are a part of company that is growing and then one day they come to you and say «we would like to open a customer service office in Korea and we would like you to manage it». Then you could go for one year to join the startup process. That would be cool. For example to lead the start up. To have that opportunity to travel. Or perhaps closer, if they establish one in Sweden.

STUDY 2: QUANTITATIVE RESULTS FROM QUESTIONNAIRE

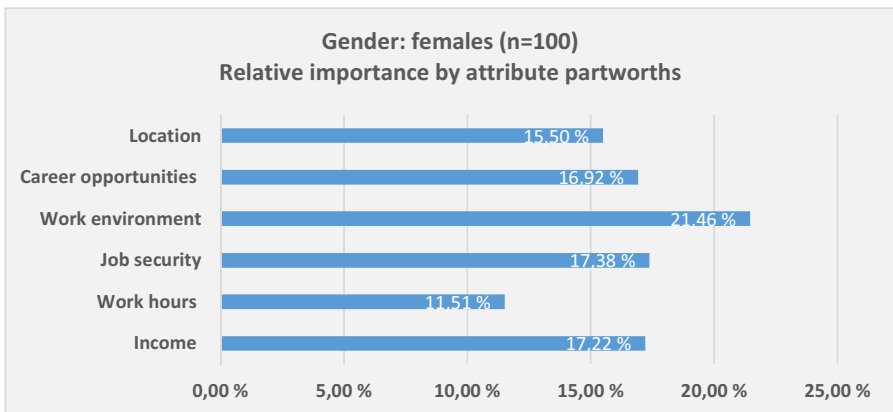
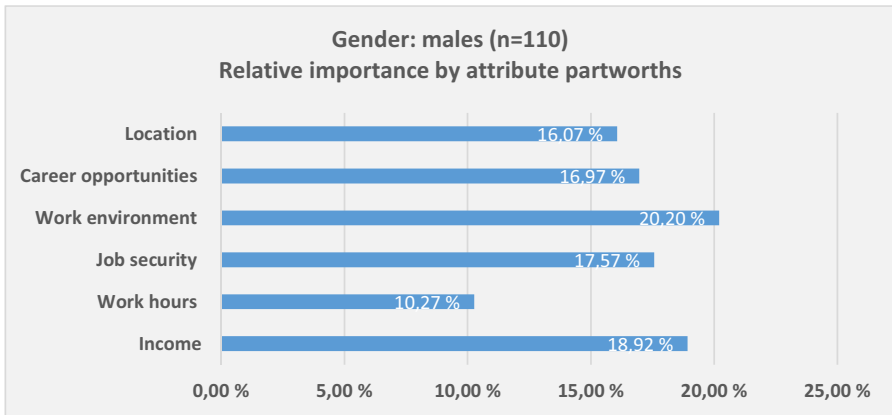
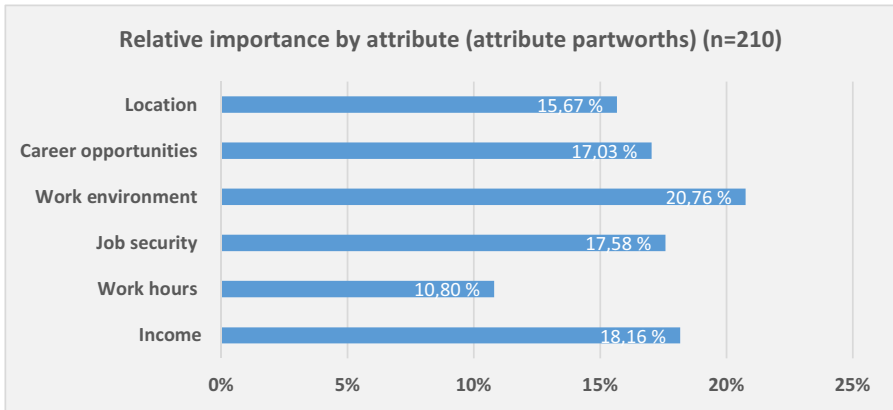
The quantitative section below presents the findings from the conjoint analysis regarding students' attitudes to the work attributes. It explores the relative overall importance of the various work attributes that were developed from analyzing the focus group interviews (see table 15.1), as well as the specific relative importance for those who prefer working in their home county and working abroad.

Average utilities of work attributes

The average utilities from the conjoint analysis revealed that work environment was the most important attribute for students when evaluating different job opportunities (see Figure 15.2). Work environment had an attribute partworth of 20,8%, followed by income at 18,2% and job security at 17,6%. With 10,8%, work effort turned out to be the least important attribute for students. This is in accordance with findings from both reflections and from a ranking exercise in the focus groups. At the end of the interviews, a list of the main points of the discussion was written on a white board. Students was asked to prioritize the three most important factors to them. The by far most important, was work environment (29 points of possible 39 points). This was followed by career opportunities (13 points) and income (9 points).

TABLE 15.1 Attributes and levels developed from focus group interviews

Attributt	LEVEL
SALARY	1. NOK 300 000 a year
	2. NOK 450 000 a year
	3. NOK 600 000 a year
WORK EFFORT	1. 38 hours a week
	2. 44 hours a week
	3. 50 hours a week
Job SECURITY	1. 100% certain that you will have work in 1 year
	2. 50% certain that you will have work in 1 year
	3. 10% certain that you will have work in 1 year
WORK ENVIRONMENT	1. Very good – Very good relationship to colleagues and management
	2. Satisfactory – No problems with neither colleagues or management
	3. Poor – Poor relationship to colleagues and management
CAREER OPPORTUNITIES	1. Very good career opportunities – for professional development and promotion
	2. Some career opportunities – for professional development and promotion
	3. No career opportunities – for professional development and promotion
LOCATION	1. In your home county
	2. In Oslo
	3. Abroad



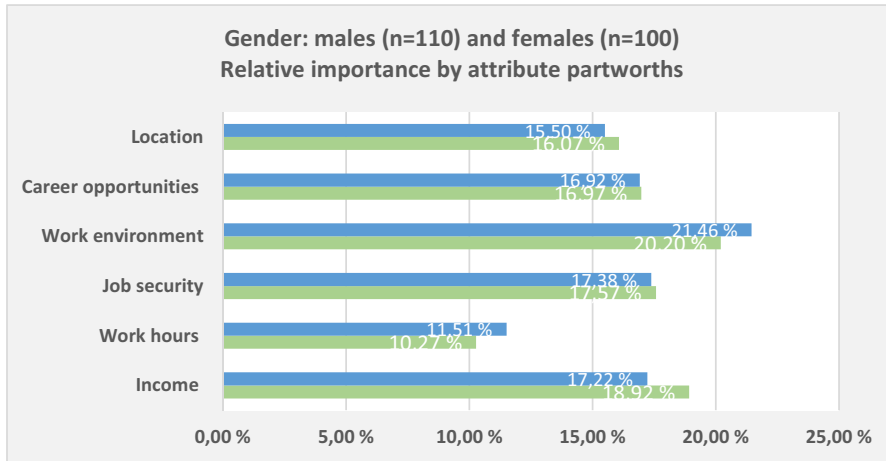


FIGURE 15.2 Relative importance of work attributes

Since there were variations in the response rate between gender and study programs, we examined whether this could be a source of systematic differences in the sample. An one-way ANOVA showed that there were not any significant differences in the relative importance of career factors between study programs. However, for males and females, an independent samples t-test indicated a significant difference in two of the factors (see Table 15.2). Males had a significantly higher relative importance of income and significantly lower relative importance of work environment than females. Despite these differences, work environment was still the most important job attribute when considering future workplaces also among males.

TABLE 15.2 Independent group t-test of attribute importance

	Males		Females		t
	Mean	SD	Mean	SD	
Income importance	16,57	4,17	15,18	4,27	2,66**
Work environment importance	17,70	4,33	18,85	3,76	-2,05*

Note: * $p \leq 0,05$, ** $p \leq 0,01$, *** $p \leq 0,001$, $df=200$

Attitudes to location and international mobility

For the attribute location, respondents were presented with the following three levels: working in your home county, working in Oslo, and working abroad. Figure 15.3 illustrates the level partworths, where levels that are strongly preferred have higher scores, while levels that in comparison less preferred have lower scores. The chart is scaled in a manner where the sum of positive attribute values equals the sum of positive values. Figure 3 indicates that students strongly preferred working in their home county as opposed to working in Oslo or abroad. Moreover, the students were far more positive towards moving abroad to work than to moving to Oslo. In fact, survey data from 210 respondents showed that 70,5% rated working in their home county as their first choice. Of these, 103 students (69,6%) were from M&R. In terms of working abroad, 25,7% had this as their main preference, while only 3,8% (8 students) rated working in Oslo as their first choice.

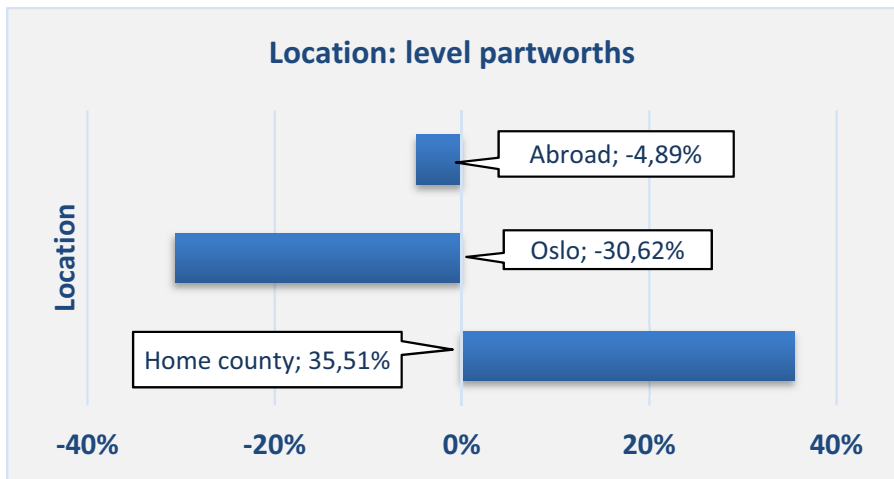


FIGURE 15.3 Location: relative partworths by level

The relative importance of work attributes can be further split in two based on the main preference of location. This enables a comparison of differences between students with working abroad as their first choice and students whose main preference is working in their home county. Figure 15.4 depicts that those who are internationally oriented (group 1) have somewhat different preferences than those whose first choice is working in their home county and are regionally orientated (group 2). However, work environment is decidedly still the most important attrib-

ute for both groups, while work hours is by far the least important. In terms of differences, group 1 find career opportunities and income comparatively more important than those who prefer working in their home county. As could be expected, location is quite important for group 2, it becomes less important for group 1 who are more flexible in terms of location.

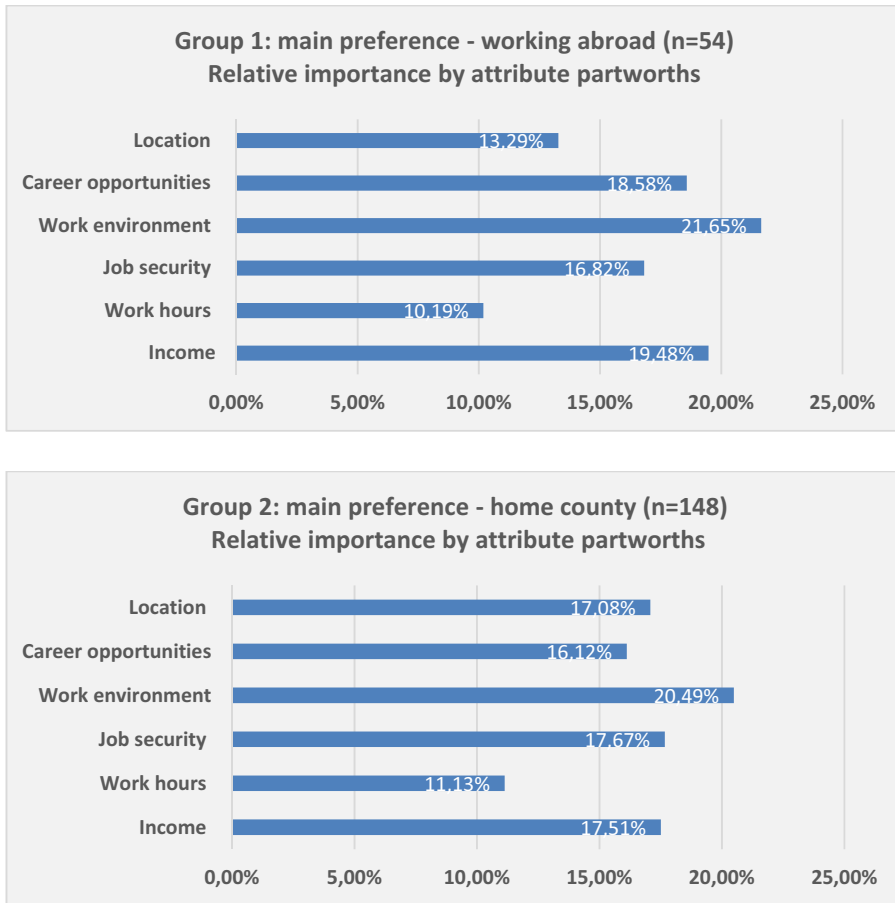


FIGURE 15.4 Relative attribute importance according to location preference

An independent samples t-test between the group 1 and 2 demonstrate that the difference in importance of location, career opportunities, and income is statistically significant (see Table 15.3). Group 1 had significantly lower relative importance of location and significantly higher relative importance career opportunities and income compared to group 2. Thus, although there are significant variations in the

preferences between regionally and internationally oriented, the most striking finding is that they are still similar in what matters most and least to them. Work environment is of major importance for all, while work hours is the least important attribute.

TABLE 15.3 Independent group t-test of attribute importance

	Group 1		Group 2		
	Mean	SD	Mean	SD	t
Location importance	11,67	5,24	14,98	5,11	-4,01***
Career opportunities importance	16,32	5,51	14,14	4,23	2,63***
Income importance	17,10	4,30	15,36	3,74	2,82*

Note: *p≤0,05, **p≤0,01, ***p≤0,001, df=200

DISCUSSION

This study sets out to examine which factors that matter for students when they consider future job opportunities. Understanding students’ career preference is essential for those who are interested in recruiting regional students after graduation. Further, we acknowledge that students who are internationally oriented have a higher level of key employability qualities, which they further develop if they go abroad. This makes it important to attract students who consider or have lived abroad for a period. Accordingly, the study further explores whether these have different career preferences than the more regionally oriented students. Avoiding brain drain is vital for a stable and competent work force, while retrieving students who have lived abroad will contribute to bringing new ideas and international experience back to a region. It is therefore important to know what motivates these students to both stay after graduation, as well as to come back after gaining experience abroad.

The focus group interviews and the conjoint analysis provided rather coinciding findings about students’ preferences in terms of job factors. Thus, the sequential exploratory mixed methods design thereby enabled triangulation through methods and provided us with richer data than either qualitative or quantitative methods would have alone. Work environment turned out to be the single most important career factor for students. This was confirmed in the conjoint analysis, as well as through reflections and a ranking list in the focus groups. The discussions in the

focus groups revealed that there was a distinct relational aspect in how they perceived a good work environment. Having a good relation to colleagues and management was seen as decisive for whether a job was attractive. Likewise, working in a poor work environment would be a major motivation for looking for a new job. Work environment was particularly important for female students. Many Norwegian regions, including M&R, are facing a deficit in females and have explicitly formulated the importance of retaining and attracting females with higher education. This is a significant insight in that respect, as it can contribute to understanding how potential employers can communicate to reach this target group.

Although they were not as important as the work environment factor, the quantitative results showed that income, job security, and career opportunities also had a high relative importance to students. In the focus groups, less attention was given to income and job security. Students expressed that as long as the income was decent, other factors were more important. Career opportunities were however much discussed. Several expressed that it was critical to have the opportunity to learn and get promotions. Some brought up trainee positions as a particularly attractive opportunity for career development. In collaboration with international partners, this was also pointed out as an opportunity for gaining international experience before returning to fixed positions.

Remarkably, work effort was the least important career factor in the conjoint analysis. In fact, considerable work hours of 44 and even 50 hours a week had little impact on how attractive a job was for the students. This was also established in the focus groups, where students expressed that they were eager to put in extra hours and prove themselves as long as the job had other attractive attribute levels. Thus, this appears to be good news for employers in M&R, since students report that they are prepared to contribute both with effort and time. Students in M&R are in other words ready to put in substantial work effort when they commence their careers, providing that a job also offers a positive working environment, a decent income, job security and possibilities for career development. While Båtevik & Tangen (2010) found that organizations expressed concerns about not being able to compete in terms of income, our findings indicate that this might not be the most important matter for students. Thus, constraints in terms of nationally competitive salaries might be compensated by signaling benefits in terms of work environment, opportunities for development, or trainee positions.

The findings could have important implications for recruitment communication towards students both in M&R and in a wider national context. With increasing urbanization and centralization, brain drain has become a global issue that is rel-

evant for major parts of Norway. While the findings are based on a sample from NTNU in Aalesund, they could also have wider implications for comparable semi-peripheral regions. There were for example no systematic differences between study programs, thus, we believe that the findings can be generalizable to other students groups. Obviously, the findings may also be applicable to more urban regions in Norway. Hence, it could be that students in Oslo would have the same preferences and that this is not particular for peripheral regions. Further research would be needed to establish this. However, as it could be difficult for peripheral regions to compete on urbanization, professional environment, or high salaries, we believe that the findings are particularly relevant for these regions as they identify something these regions can compete on, i.e. work environment. There are aspects where peripheral regions have obvious disadvantages. However, emphasizing development and communication of a positive work environment is not location specific and ought to be a factor where more peripheral regions can compete on equal terms.

In line with Sæther et al. (2000), Arnesen (2003) and Gythfeldt & Heggen (2012), we find that NTNU in Aalesund plays an important role in building regional human capital. Findings indicate that students prefer working in their home county after graduation. This was reflected in both the focus group interviews and conjoint analysis. The majority of the respondents were students from M&R, indicating many prospective employees for regional companies in the years to come. Among the 210 respondents, of which 66% were from M&R, 70,5% rated working in their home county as the first choice. Only 3,8% (8 students) rated working in Oslo as their first choice. Understandably, there is an aspect of self-selection here, as the active choice of location for many takes place when choosing where to study.

Perhaps more noteworthy, is that 25,7% preferred working abroad rather than the two other location options. Students were accordingly quite positive towards living abroad, but focus groups reflections revealed less enthusiasm about moving abroad permanently. An important finding for recruiting organizations is that being an international company was positively perceived. That a potential employer operated internationally or had international motivations was perceived as something that reflected the ambitions of an organization in general. Further, having opportunities for travelling or staying abroad as part of employment in a Norwegian firm was seen as an attractive opportunity.

Previous research has shown that there are preexisting differences between internationally oriented and non-mobile students (Zimmermann & Never, 2013; European Commission, 2014). We find that this is also the case with regards to

career preferences. Indeed, internationally oriented students find career opportunities and income comparatively more important than those who prefer working in their home, while location is less important for these students. However, regional and internationally oriented students appear to be more similar than dissimilar. Work effort is still by far the least important job factor, while work environment is decidedly the most important factor for all students. Thus, work environment ought to be a vital part in recruitment communication for organizations in peripheral, as this is seen as critical for all students independently of their location preferences.

CONCLUSION

Our findings have implications for employers and other stakeholders aiming to recruit students with higher education. This is particularly relevant to regions that are currently facing brain drain in a world of increasing urbanization and centralization. By understanding students' career preferences, recruitment communication can be adapted accordingly. Work environment is for instance by far the most important factor for our student sample when considering prospective job opportunities, particularly for females. Students expressed that they would avoid applying for jobs if an organization had a reputation of having a poor work environment. Likewise, organizations associated with a positive working environment were seen as very attractive workplaces. For employers in semi-peripheral Norway, this could have important implications. Such organizations are not always able to compete on salaries, specialist environment, and organizational promotions compared to employers based in larger cities. However, work environment ought to be more organizationally than geographically dependent, and accordingly something that organizations in more rural areas should be able to compete on. Thus, continuously striving for a superior working environment, as well as communicating this in recruitment, is essential for organizations seeking to recruit students similar to our sample.

International presence and ambitions could further be highlighted, as students perceive this as a positive factor. In terms of differences between regionally and internationally oriented students, work environment is the most important factor for both groups. However, income and opportunities for career development is significantly more important for those who prefer working abroad than for those whose first choice is to work in their home county. Hence, if the aim is to attract these students, recruitment communication could put more emphasize on this. Trainee arrangement could be an important opportunity to develop in this regard, as such arrangements were seen as very attractive with regards to career opportunities.

The study is not without its limitations. The focus group participants were recruited by mail where the topic was given. One can therefore imagine that those who are particularly interested the topic were overrepresented in the focus groups compared to the general student population. Furthermore, our population were students from the departments business, biology, maritime studies and engineering at NTNU in M&R. Although there were no indications of significant differences between study programs, a future research opportunity could be to investigate whether the findings are valid for other regions and other study programs. Extending the study to a longitudinal follow-up design, could also be a fruitful avenue for future research and could provide insight into whether career preferences change as students move into employment, start families and choose different career trajectories.

LITERATURE

- Ackers, L. (2005). Moving people and knowledge: Scientific mobility in the European Union I. *International migration*, 43 (5), 99–131.
- Arnesen, C. (2003). En analyse av bosettingsmønster og arbeidsmarkedstilpasning blant nyutdannede kandidater. *NIFU-rapport 7*, Oslo: NIFU
- Arnesen, C. Å (2006): Regional spredning av kompetanse. I: Grøgaard, J. B og Liv Anne Støren, L. A. (eds.). *Kunnskapssamfunnet tar form: utdanningseksplasjonen og arbeidsmarkedets struktur*. Oslo: Cappelen akademisk forlag
- Asheim, B. & Grillitsch, M. (2014). Smart specialisation: Sources for new path development in a peripheral manufacturing region. In Strand, Nettet & Yndestad (eds.). *Fragmentering eller mobilisering? Regional utvikling i nordvest – Fjordantologien 2014*. Oslo: Forlag1
- Becker, G. S. (1994). Human capital revisited. In *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. 3rd Edition, s. 15–28, The University of Chicago Press.
- Beine, M., Docquier, F., & Rapoport, H. (2008). Brain drain and human capital formation in developing countries: winners and losers. *The Economic Journal*, 118 (528), 631–652.
- Båtevik, F. O., & Tangen, G. (2010). Arbeidskraftbehov i Møre og Romsdal – Ei undersøkning blant offentlige og private bedrifter hausten 2009. *Rapport nr. 4*, Volda: Møreforskning
- Båtevik, F. O. & Tobro, R. (2011). *Vi treng fleire kloke hovud*. RISS 2011. Retrieved from: <https://mrfylke.no/content/download/59384/365498/file/RISS+NR+1-2011+komplett.pdf>
- Båtevik, F. O., Yttredal, E. R., & Hanche-Olsen, M. (2013). Kompetanse for ei kunnskapsintensiv framtid. *Rapport nr. 38*, Volda: Møreforskning
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- European Commission. (2014). *The Erasmus impact study: Effects of mobility on the skills and employability of students and the internationalisation of higher education institutions*. Retrieved from http://ec.europa.eu/education/library/study/2014/erasmusimpact_en.pdf

- Grimsrud, G. M. (2011). How well does the 'counter-urbanisation story' travel to other countries? The case of Norway. *Population, Space and Place*, 17 (5): 642–655.
- Grimsrud, G. M., Båtevik, F. O., & Giskeødegård, M. F. (2015). Kristiansund, Molde og Ålesund som regionale motorar. *Rapport nr. 53*, Volda: Møreforskning Volda.
- Gythfeldt, K., & Heggen, K. (2012). Er høyskolene regionale kvalifiseringsinstitusjoner? Likheter og ulikheter mellom høyskolene på Vestlandet og i hovedstadsregionen. *HiOA-report 5*, Høgskolen i Oslo og Akershus.
- Johnson, J. M., & Regets, M. C. (1998). International Mobility of Scientists and Engineers to the United States- Brain Drain or Brain Circulation? *SRS Issue Brief*.
- Jongbloed, B. (2010) The regional relevance of research in universities of applied sciences, in: Kyvik, S. & Lepori, B. (Eds). *The research mission of higher education institutions outside the university sector*, pp. 25–44, Dordrecht: Springer.
- Malterud, K. (2012a). *Fokusgrupper som forskningsmetode for medisin og helsefag*. Oslo: Universitetsforlaget.
- Malterud, K. (2012b). Systematic text condensation: a strategy for qualitative analysis. *Scandinavian journal of public health*, 40 (8), 795–805.
- Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of political economy*, 66 (4), 281–302.
- Morgan, D. L. (1996). *Focus groups as qualitative research* (Vol. 16): Sage publications.
- Niedomysl, T. & Hansen, H. K. (2010). What matters more for the decision to move: jobs versus amenities. *Environment and Planning A*, 42 (7), 1636–1649.
- OECD. (2007). Higher education and regions – globally competitive, locally engaged. Paris:OECD
- Orme, B. K. (2010). *Getting started with conjoint analysis: strategies for product design and pricing research*, Research Publishers.
- Oosterbeek, H., & Webbink, D. (2011). Does studying abroad induce a brain drain? *Economica*, 78 (310), 347–366.
- Paige, R. M., Fry, G. W., Stallman, E. M., Josić, J., & Jon, J. E. (2009). Study abroad for global engagement: the long-term impact of mobility experiences. *Intercultural Education*, 20 (1), 29–44.
- Parey, M., & Waldinger, F. (2011). Studying abroad and the effect on international labour market mobility: Evidence from the introduction of ERASMUS. *The Economic Journal*, 121 (551), 194–222.
- Puukka, J. & Marmolejo, F. (2008). Higher education institutions and regional mission: lessons learnt from the OECD Review Project. *Higher education policy*, 21 (2), 217–244.
- Salisbury, M. H., An, B. P., & Pascarella, E. T. (2013). The effect of study abroad on intercultural competence among undergraduate college students. *Journal of Student Affairs Research and Practice*, 50 (1), 1–20.
- Senter for internasjonalsisering av utdanning. (2016). Studentutveksling fra Norge. Rapport nr. 2/2016.
- Statistics Norway (2017a). Migrations. Retrieved from: www.ssb.no/en/befolkning/artikler-og-publikasjoner/net-migration-to-oslo-is-halved

- Statistics Norway (2017b). *Educational attainment of the population*. Retrieved from www.ssb.no/en/utdanning/statistikker/utniv
- Statistics Norway (2017c). *External trade in goods*. Retrieved from: www.ssb.no/en/utenriksokonomi/statistikker/muh/aar-forelopige
- Sæther, B., Mønnesland, J., Onsager, K., Sørli, K. & Arbo, P. (2000). Høgskolenes regionale betydning. *Prosjektrapport 2000:9*, Oslo: NIBR.
- Zimmermann, J., Neyer, F. J. (2013). Do We Become a Different Person When Hitting the Road? Personality Development of Sojourners. *Journal of Personality and Social Psychology*, 105 (3), 515–530.
- Williams, T. R. (2005). Exploring the impact of study abroad on students' intercultural communication skills: Adaptability and sensitivity. *Journal of studies in international education*, 9 (4), 356–371.