# PRIDOBIVANJE ČASTNIKOV – IZBOLJŠEVANJE PROCESA

# OFFICER RECRUITMENT – IMPROVING THE PROCESS

#### **Povzetek**

Edini način, da na Švedskem postaneš častnik, je, da končaš triletni program šolanja častnikov. V postopku selekcije za program šolanja častnikov je velika razlika med številom kandidatov in številom posameznikov, ki se v resnici začnejo šolati. Ena izmed posledic tega je, da program šolanja častnikov ni bil v celoti zapolnjen že od leta 2008, zaradi česar v švedski vojski primanjkuje častnikov. Prednostna naloga je torej popolnitev švedske vojske z zadostnim številom usposobljenih častnikov, zato se mora od zdaj naprej število kandidatov za častnike povečevati. Leta 2014 se je začel projekt, katerega namen je preučiti pridobivanje kandidatov in selekcijo za program šolanja častnikov ter prepoznavati dejavnike uspešnosti in področja, na katerih so potrebne izboljšave. Dodatna ambicija tega projekta je tudi uvedba ukrepov, potrebnih za povečanje učinkovitosti pridobivanja kandidatov na podlagi rezultatov in razmerja kandidatov, ki se vključijo v program šolanja častnikov.

Projekt je privedel do izvajanja drugačne strategije pridobivanja kadra v letih 2016 in 2017. V začetku postopka selekcije so s prijavljenimi stopili v stik kandidati, ki so že vključeni v program šolanja častnikov, povabljeni pa so bili tudi na informativni sestanek na švedski obrambni univerzi. S tistimi, ki so bili izbrani za šolanje v programu, so nato stopili v stik njihovi prihodnji poveljniki vodov in jim dali koristne informacije. Rezultati kažejo, da se je število kandidatov, ki so se vključili v program šolanja častnikov, povečalo, osip v izbirnem postopku pa je bil manjši kot prej.

### Ključne besede

Pridobivanje kadra, častniki, program šolanja častnikov, švedska vojska.

#### **Abstract**

The only way to become an officer in Sweden is to complete the three-year Officers' Programme (OP). In the selection process for the OP, there is a large gap between the number of applicants and the number of individuals who start the programme. One consequence of this is that the OP has not been fully manned since 2008, thus leaving the Swedish Armed Forces (SAF) with a shortage of officers. Manning the SAF with sufficient officers with the right qualifications is a priority, and henceforth the number of cadets must increase. Therefore, in 2014, a project was launched with the aim of examining recruitment to and selection for the OP, as well as identifying success factors and areas of improvement. An additional ambition was to introduce measures intended to increase recruiting efficiency based on the results, and the proportion of individuals who enter the OP.

The project led to the implementation of a different recruitment strategy in 2016 and 2017. Early in the selection process applicants were contacted by cadets already studying on the OP, and were invited to an information meeting at the Swedish Defence University. Those who were selected to start the OP were also contacted by their future platoon commanders, who provided useful information. The outcomes show that the numbers of cadets starting the OP increased, and the dropout rate during the selection process was lower than before.

# Key words Recruitment, Officers, Officers' Programme, Swedish Armed Forces

#### Introduction

In order to become an officer in Sweden, it is necessary to complete the three-year Officers' Programme (OP). The OP has been an academic education at the Swedish Defence University (SEDU) since 2008. The programme leads to a Bachelor's degree in War Science. In recent years the number of positions available on the OP has been 150. However, the Swedish Armed Forces (SAF) and the SEDU are struggling to fill these positions. The SEDU and the SAF have not succeeded in manning the SAF with a sufficient number of officers for the past 10 years.

During the selection process, there are more individuals voluntarily dropping out than there are those not passing the selection tests. Overall the proportion of individuals dropping out is about 80-85%. The reasons for voluntarily dropping out varies; many applicants already have an academic degree and do not want to spend an additional three years within the education system, while others have a competing duty or position in the SAF (many of those applying are already employed soldiers or NCO's in the SAF). The dropout rate among those who have been admitted to the OP, but have chosen not to start the programme, has been between 20% and 30% for the past three years. These individuals have passed the entire selection process and are qualified and ready to start the OP.

When the all-volunteer force (AVF) was introduced in Sweden 2010, a two category system with NCO's and officers was re-introduced (see Hedlund, 2011). The NCO's take a one-year specialist training course while the officers complete the 3-year academic OP.

Today, there is considerable competition for skilled personnel in the labour market, which presents major challenges for employers in recruiting and retaining qualified personnel. Another recruitment obstacle for the SAF in general, and as a consequence for the OP in particular, is the demographic distribution in Sweden (Jonsson & Österberg, 2017), which resembles the situation in many western countries (Münz, 2007, 2011). The large birth cohorts of the 1940s and 1950s are leaving the labour market, including the armed forces, and will be replaced by smaller birth cohorts. In a few years' time, one of the smallest birth cohorts in Sweden, people born in 1999, will enter the labour market at the same time as larger cohorts are retiring (Statistics Sweden, 2016).

Various studies address the problem of a shortage of military personnel (e.g. Lewis, 2004; Henning, 2006; Korb & Duggan, 2007; Suman, 2015). The challenges in recruiting and retaining individuals remain, regardless of the manning system, be it AVF or general conscription (Szvircsev Tresch & Leuprecht, 2010; Weber & Österberg, 2015).

#### THE SWEDISH CASE

Österberg et al. (2017) have shown that the retention challenges in Sweden have increased since the introduction of an AVF. Jonsson and Österberg (2017), as well as Österberg (2017), outline the different strategies used by the SAF in order to increase the recruitment base by approaching groups under-represented in the SAF. In addition, Weber and Österberg (2015) describe the generational differences and recruitment in western societies, where the values of the younger population also seem to be changing from materialist to post-materialist priorities (Inglehart, 2008, Inglehart & Welzel, 2010). Furthermore, youths are likely to put more emphasis on self-fulfillment, individual freedom and quality of life, which in turn will restrict the armed forces' ability to meet recruitment and retention goals (Apt, 2005: 89). Hedlund (2011) illustrates how officer education in Sweden has altered over the last 25 years, due to strategic decisions, different manning systems (conscription and AVF), and the implementation of the academic OP.

# THE ADMISSION PROCESS FOR THE SWEDISH OFFICERS' PROGRAMME

The initial application is completed online and the application window is open for a period of two months per year. Those qualified at the initial step are those who have completed secondary education as well as the basic military training, have Swedish citizenship, and have passed a background security check. The applicants are then called to the Swedish Defence Recruitment Agency for physical and cognitive tests, which include interviews with a psychologist, as well as with a military officer. The selected applicants are invited to commence the OP in August of each year.

<sup>&</sup>lt;sup>1</sup> Until 2016 these tests were held in two sessions at different times (here called Test 1 and Test 2); since 2016 all tests have been performed during one session.

### THE SWEDISH OFFICERS' PROGRAMME

The OP is run by the SEDU in Stockholm and covers both practical and theoretical studies. Most of the course takes place at the Military Academy Karlberg in Stockholm, except for two semesters which take place at the SAF's arms and service schools. When studying at the OP, every cadet is not only a college student at the SEDU, but also an officer cadet in the Armed Forces Cadet Battalion. The course includes benefits such as meals, accommodation, free travel between the Academy and home, course literature and a daily allowance. The average age of those starting the OP in recent years has varied between 24 and 27 years, and 14-19% have been women.

#### **AIM**

All in all, there are significant challenges when it comes to the recruitment of officers, hence the aim of this study is to examine recruitment to and selection for the OP, with the purpose of identifying success factors and areas of improvement. An additional ambition is to introduce measures based on the results intended to increase recruitment efficiency, and the proportion of individuals who enter the OP.

#### 1. METHOD

In order to study recruitment to and selection for the OP, the authors have conducted three different studies, which are described below. The first study investigated how many individuals have the potential to enter the OP annually. The second study analyzed the application and admission statistics of the OP, and the third and final study focused on the dropout rate during the selection process to the programme. These studies gave us an indication of how big the recruitment base is to the OP, as well as the dropout rate and the reasons for dropping out of the selection process.

# 1.1 Potential for entering the Officers' Programme

The first study investigated how many of the applicants to basic military training (BMT) met the physical and cognitive requirements for the OP annually. The data simulations were based on data from the BMT admission tests 2011-2013, obtained from the Swedish Defence Recruitment Agency (n = 50,858). The tests comprise physical and cognitive testing, and applicants must reach a score of 6 on a 9 point stanine scale in general intelligence, psychological ability and leadership potential; a score of 4 (of 9) in physical capability; and 3 (of 9) in muscular performance in order to meet the qualifications for the OP. The results of this study gave us an indication of how big the recruitment base is to the OP.

# 1.2 Application and admission statistics

Statistics for applications and applicants' attendance at the different stages of the selection process were studied by using data from the SEDU admission section. From

this data, we could see how many applications there were and how many individuals actually started the OP each year since 2008, and relate these numbers to each other.

# 1.3 Dropout rate during the selection process

Dropout rates during the selection process were studied at three stages in the process: those who did not show up for test 1, those who did not show up for test 2, and those who declined the offer of a position on the OP.

The Research, Education and Student Department at the SEDU assisted the project by giving us the email addresses of those in the sample. Individuals who dropped out at the test 1 or test 2 stages responded to an internet survey, dispatched by the authors, and in 2015 those individuals who were offered a place on the OP but turned it down were sent an email request for participation in a short semi-structured telephone interview. The number of respondents is shown in Table 1. The response rate in the dropout study was 51% for test 1, 30% for test 2 and 56% for the telephone interview.

Table 1: Number of participants in the dropout study

	Test 1	Test 2	Offered a position
OP 14-17	43	12	
OP 15-18	44	13	20

## 2. RESULTS

# 2.1 Potential for entering the Officers' Programme

The potential of applicants for BMT in 2011-2013 to become qualified to enter the OP was studied in 2014 (Jonsson & Österberg, 2014). During these three years, 50,858 applied for BMT, of which 21,838 individuals (43%) attended the admission tests.<sup>2</sup> The potential to qualify as cadets on the OP was measured using five variables from the admission tests. In order to obtain cadet potential, the eligibility requirements were set at a score of 6 on a 9 point scale in general intelligence, psychological ability and leadership potential; a score of 4 (of 9) in physical capability; and 3 (of 9) in muscular performance. Approximately half of the individuals tested met the requirements in the psychological variables, and just over 90% met the physiological requirements. In total, 22% of those tested (or 9.5% of all applicants) achieved all five eligibility requirements, thus obtaining cadet potential. Therefore, there were approximately 1,600 individuals annually with cadet potential, which is significantly

<sup>&</sup>lt;sup>2</sup> Note that there were a number of individuals who applied and tested more than once.

higher than the actual numbers of applicants to the OP (approximately 500 annually, see Table 2).

Interest in becoming an officer among the applicants for BMT is quite high, with about 50% of applicants saying that they are interested. The study of cadet potential (Jonsson & Österberg, 2014) showed that this potential was higher among those who were interested than among those who were not interested. Overall, 19% of the individuals taking the admission tests were both interested and had potential. The study also showed that three out of ten who had cadet potential did not state an interest in an officer role.

# 2.2 Application and admission statistics

Table 2 shows the number of applicants, the number offered positions, and the number who actually started the OP in the period 2008-2017, as well as the dropout rate in the final stage and for the entire process (total dropout).

Table 2: Number of applicants, number offered positions, and number who started the OP in the years 2008-2017, as well as the percentage dropout in the final stage and in Pilots and special assignments are excluded; they are selected in a different way and do not apply through the same process as those included in this study.

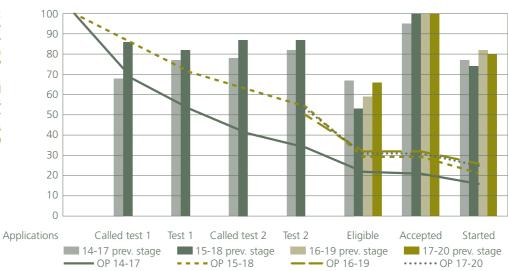
Year	Applicants	Offered place	Started	Dropout rate, final stage (%)	Total dropout rate (%)
2008	457	140	101	27.9	77.9
2009*	625	150	150	-	76.0
2010*	753	90	89	1.1	88.2
2011*	454	90	86	4.4	81.1
2012	350	90	75	16.7	78.6
2013	313	106	85	19.8	72.3
2014	601	125	96	23.2	84.0
2015	497	143	104	27.3	79.1
2016	462	146	118	19.2	74.4
2017	507	165	132	20.0	74.0

<sup>\*</sup> The low dropout rate at the final stage 2009-2011 can be explained by reserve admissions. Data from the Research, Education and Student Department at the SEDU.

In recent years, the number of applicants for the OP has varied. Table 2 also shows that the dropout rate during the admission process is very high (approximately 80%). The OP admission process aims to find the best candidates for the programme and for the officer profession. During the various stages of the process, individuals who do not meet the requirements are eliminated. At the end those who meet the requirements and are judged to be most suitable are admitted. However, at each step in the admissions process, a number of individuals who are qualified for the next

stage choose to drop out for various reasons. Figure 1 shows the dropout rate for the OP 14-17, 15-18, 16-19 and 17-20 at each stage in the admission process.<sup>3</sup> The lines represent the proportion of applicants who succeed in the process overall. The bars represent the proportion of applicants who continue to the next stage from the previous stage.<sup>4</sup>

Figure 1: Dropout rate during the admission process OP 14-17, 15-18, 16-19 and 17-20 (pilots and other assignments excluded)



In general the lines and bars show a similar pattern, but there are some year specific variations. As shown in Table 2, the number of applications almost doubled in 2014 in comparison to 2013. 2014 was the first year that applications were administered by the general website for applications to Swedish universities. Even though numbers increased, several applicants did not meet the basic qualifications for the OP, e.g. they had no basic military training. This led to a higher dropout rate of applicants in 2014 than, for example, 2015, and this dropout affected the proportion of applicants who succeeded in passing the admission tests. In the end, 16% of the applicants in 2014 started the OP. This percentage has increased every year since then, and in the following sections we will discuss possible reasons why. In 2015, 21% of the applicants started the OP; however, in that year a higher proportion of applicants did not pass test 2, were ineligible, or chose not to start the OP. In 2016 and 2017 the proportions succeeding in the admission process were quite similar. In comparison with 2015, these two years also had a slightly higher proportion of applicants who were eligible for the OP after the tests, and a higher proportion of applicants who were admitted to and started the OP.

<sup>&</sup>lt;sup>3</sup> OP 14-17 started in 2014 and graduated 2017, OP 15-18 started in 2015 and graduated 2018, and so on.

<sup>&</sup>lt;sup>4</sup> In 2016 the admission process changed slightly and the two test occasions were replaced by one, the aim being to reduce the dropout between the two tests. Hence the lines and bars from OP16-19 and OP 17-20 start later in the process.

Ideally, all qualified individuals would move on to the next stage in the admission process, but as Figure 1 shows, this is not the case. A study was set up to find out the reasons for voluntary dropout at three different stages of the admission process (before Test 1, Test 2 and Admitted). The demographics of the respondents who failed to make the next stage are shown in Table 3. Because of the small sample sizes, the Table shows actual numbers and not percentages.

Table 3:
Demographic variables for participants in the dropout study, in numbers (mean and standard deviation for age).

	Test 1		Test 2		Admitted
	OP 14-17	OP 15-18	OP 14-17	OP 15-18	OP 15-18
n	43	44	12	13	20
Age (M, SD)	28.0 (5.9)	28.9 (5.7)	27.3 (5.7)	25.9 (3.9)	24.8 (2.9)
Gender					
Female	3	3	1	1	2
Male	40	41	11	12	18
University experience	27	26	6	7	9
Basic military training					
Conscription	30	34	6	10	7
Volunteer + preparatory officer training	2	1	0	0	7
Volunteer + 9 month employment	12	7	6	3	6
Occupation					
Military	10	5	10	9	16
Civilian	31	36	2	4	4
Officer in the family	6	8	1	0	8

The applicants who dropped out at the earlier stages were older than the applicants who dropped out later, and also older than the cadets generally (mean age 24 years at the start of the OP). More than half of them had experience from university studies and were more often civilians rather than military. Applicants who voluntarily dropped out at test 2, and after being admitted to the OP, were more often military personnel employed by the SAF (p < 0.01).

# 2.3 Dropout rate during the selection process

The reasons why applicants failed to attend the tests varied (work, studies, or temporary illnesses such as influenza). Some applicants indicated that they could not attend the test and had tried to change the date. Several applicants stated that they

had not received an invitation to the tests at all or on time. Another common reason for applicants not attending tests was that they thought that they would not meet the requirements. This indicates that failures to attend could have been prevented in some cases. After 2014, the system became more flexible, which meant that the applicants had a greater chance of attending test 1.

The applicants who made it through the whole admission process and were admitted to the OP but turned down their position often had several reasons for doing so. The most common reason was that they already held, or had been offered, other employment in the SAF. Very often these were attractive positions, including offers to go on international operations. Many applicants had also been admitted to NCO training, and chose that career path instead. Others had received an attractive civilian job offer or chosen civilian studies. Some chose an alternative military engagement in order to gain more experience before they started the OP. Other factors that emerged were financial reasons, family and life situations, and some experienced a lack of confidence in the SAF. Some of those who had done the preparatory officer training were dissatisfied with the training. This dissatisfaction was based on uncertainties and a lack of structure, as well as a lack of information about admission to the OP and unclear career opportunities.

Most applicants who underwent the entire admission process thought the procedure and the tests were relevant. However, some thought that the admission process was too extensive and some felt that it was irrelevant to repeat tests they had already passed in order to enter BMT. Nevertheless, they still saw the benefits of the tests and ultimately thought it was better to test too much than not enough. One applicant thought the requirements could be tougher.

Applicants were asked if they would apply for the OP again; the results are shown in Table 4.

Table 4: Future application, percentage \* Response option only applicable for OP 14-17.

	Test 1		Test 2		Admitted
	OP 14-17	OP 15-18	OP 14-17	OP 15-18	OP 15-18
Already applied*	24		50		
Yes	26	41	25	31	89
No	7	14	8	0	11
Don't know	43	45	17	69	0

Only a few applicants said that they would not apply for the OP again. Applicants for the OP 14-17 were surveyed one year after the admission process, when the application process for the OP 15-18 had already started. The results showed that almost 25% of the dropouts at test 1 applied again, as did 50% of the dropouts at test 2. For some respondents this could have been a hypothetical question. One respondent stated in a telephone interview that of course it was possible, but only if an alternative job turned out to be a disappointment, which at the time seemed unlikely.

#### 2.4 Measures

Based on the results from the project the SEDU took measures, and the flexibility and adaptability in the selection process have increased. Today possible cadets do not miss the chance to start the OP because they have the flu in January; instead the date of the test can be rearranged. Earlier studies of recruitment in a Swedish military context show that personal contact is important when attracting and recruiting young people to the armed forces (Jonsson & Österberg, 2017; Österberg, 2017). For this reason one of the measures taken to enhance the recruitment and selection process was to start a project called "A Cadet Calls" in 2015. Cadets phoned the applicants and gave them information about the OP, accommodation at the Military Academy, and other aspects of life as an officer cadet, as well as listening and responding to the applicants' questions.

Results from "A Cadet Calls" showed that six areas were most prevalent during the calls: the selection process (when, where, how), basic needs (food, travel, insurance), academic content (courses, essays, and exams), military content, semesters spent at an SAF arms and service schools, and career development.

A year later, in 2016, this measure was expanded, and the admitted applicants were contacted by their future platoon commander.

In all, the contact process is now as follows:

- 1. Every applicant gets a welcome email from the OP management, with information and useful telephone numbers and website addresses; furthermore, the applicants get useful information on how to prepare themselves for the upcoming physical and cognitive tests;
- 2. Every applicant is invited to an information evening with cadets from the OP;
- 3. There is an open house at the Military Academy for those already employed in the SAF, and those who have applied to the OP;
- 4. For those admitted to the OP, their future platoon commander phones and introduces themselves and answers questions;
- 5. Those admitted to the OP receive an email from the OP management providing information about the start of the programme.

#### **Discussion**

The aim of this project was to examine recruitment to and selection for the OP, with the purpose of identifying success factors and areas for improvement. The demographic distribution in Sweden makes it difficult for organizations to recruit qualified personnel, and in combination with this, Sweden also has a historically low rate of youth unemployment. These conditions make the attractiveness of the SAF in general, and the OP in particular, of utmost importance in manning the military with officers. For these reasons, communication to the young and the messages the SAF sends out need to be improved. Several major industrial companies consciously work to recruit young people who are attractive to the labour market (i.e. people in the OP target group). The SAF needs to improve its recruitment strategies, as it is fighting with more experienced companies for the best candidates.

Ideally, all applicants who are invited to the tests should complete them, and all those selected for the OP should start the programme. The number lost due to "selfselected" dropout (i.e. not attending tests, and turning down the offer to start the OP), corresponds with the number of cadets who actually start the OP. Each individual who drops out late in the process has cost a lot of money in terms of testing, advertising and recruitment. Whether or not the applicants who do not attend the tests have the qualifications to start the OP is unknown; however, it is likely that some of them at least have what is required. One of the reasons stated for not attending the tests was that the individual doubted their ability to pass the tests. Previous studies (e.g. Jonsson & Carlstedt, 2012) have shown that there is a covariation between applicants' goals and their qualities. It is possible that the applicants have good selfawareness of their qualities, and that this form of self-selection not is unfavourable. Nevertheless, it may be worth keeping in touch with these individuals, and through training tips, apps, information, mentor programmes etc. retain their interest and improve their ability to pass the tests and the training. Furthermore, the SAF needs to restore the local geographical links to a unit when recruiting, in order to improve the possibility of more personal contact with those interested in the OP.

An additional ambition of the project was to introduce measures based on the results intended to increase recruitment efficiency, and the proportion of individuals who enter the OP. The measures taken seem to have paid off. Results indicate that repeated personal contact with cadets and officers has a positive impact on recruitment to the OP, and the percentage of applicants who start the OP has increased from 16% to 26%. Maybe early actions, such as those suggested above, could improve the results even more.

Another factor that further advocates the benefits of contacting previous applicants to the OP is that many who drop out from the selection process are still interested in starting the OP. When individuals who did not attend test 2 in 2014 were contacted in the spring of 2015, half of them had already applied for the OP 2015-18, and 25% were considering applying again. Only one of those who declined the offer of a position on the OP 15-18 had dismissed a future at the OP. We received many

positive responses when we contacted those who had declined a position on the OP, but some thought it was strange that nobody had been interested in them and contacted them before. These results are well in line with those of Jordan et al. (2015), who found that military cadets' decisions to sign a contract were significantly related to perceived organizational support.

The results of the present study show that about 10% of those applying for BMT have the potential to be admitted to the OP. The project proposes that these individuals should be identified during the admission test to BMT, and informed about their capabilities, as well as about the OP and the officer profession. The OP potential study also highlights another important area, namely that approximately 1,600 individuals per year have the capability required to start the OP, indicating an idea of the minimum size of the potential recruitment pool. However, the number of people actually applying for the OP annually is significantly lower. The project suggests that it would be beneficial to approach those individuals who already have shown interest in the SAF and also have potential (see Jonsson & Österberg, 2017).

Furthermore, the results shows that those withdrawing their applications early in the selection process are generally older and have higher academic qualifications. The SAF needs to be able to offer something different to these applicants. At the moment, a revised OP is being proposed, where individuals who already have a college degree can complete a shorter version of the OP.

Applicants who drop out later in the process are often employed by the SAF and a common reason for choosing not to start the OP was that they chose the shorter NCO training instead. To some extent, the SAF in general, and military units in particular, are the OP's biggest competitor. For officers working at platoon level, it can be difficult to lose their best soldiers for three years, thus creating vacancies. Here the military units must become better at promoting the OP, in order to guarantee the best for the overall personnel supply of the SAF, instead of looking at their own best.

It is important to continue studies of applicants and those admitted to the OP, because the supply of officers is an important task for the SAF. The number of soldiers recruited is irrelevant, if there are no officers who can train them.

The project to evaluate the selection for and recruitment to the OP will continue with a qualitative follow-up of the training at the SAF arms and service schools.

# Bibliography

- 1. Apt, W. (2005). The security implications of demographic change: American and European perspectives. pp.85-96 in LBJ Journal of Public Affairs, Fall.
- 2. Hedlund, E. (2011). Civil—Military Control over the Swedish Military Profession. An Analysis from the Perspective of Officer Rank and Officer Education. Armed Forces and Society, 39(1), pp.135-157.
- 3. Henning, C. A. (2006). Army Officer Shortages: Background and Issue for Congress. Washington D.C. Congressional Research Service.

- 4. Inglehart, R. (2008). Changing values among Western publics from 1970 to 2006. pp.130-146 in West European Politics 31.
- 5. Inglehart, R. & Welzel, C. (2010). Changing mass priorities: the link between modernization and democracy, pp.551-567 in Perspectives on Politics 8.
- Jonsson, E., & Carlstedt, B. (2012). Rekryteringsunderlaget 2012: Det andra året med ett frivilligbaserat försvar. [Outcomes of soldier recruitment to the Swedish Armed Forces 2012: The second year with an all-volunteer force]. (Rapport Serie 1:79). Karlstad: Försvarshögskolan, Institutionen för säkerhet, strategi och ledarskap, Ledarskapscentrum.
- 7. Jonsson, E. & Österberg, J. (2014). Potential för att antas till Officersprogrammet bland sökande till grundläggande militär utbildning. [Potential for the officer program among applicants to the basic military training]. PM ISSL/LC 5-2014. Försvarshögskolan, Institutionen för säkerhet, strategi och ledarskap, Ledarskapscentrum.
- 8. Jonsson, E. & Österberg, J. (2017). Effective Recruitment of Military Women: Developing New Methods, Res Militaris, an online social science journal, ERGOMAS Issue n°4, "Recruitment & Retention, Part 1", July 2017.
- 9. Jordan, M.T., Gabriel, J., Teasley, R., Walker, W. J. & Schraeder, M. (2015) "An integrative approach to identifying factors related to long-term career commitments: A military example", Career Development International, Vol. 20 Issue: 2, pp.163-178, https://doi.org/10.1108/CDI-05-2013-0071
- 10. Korb, L. J., & Duggan, S. E. (2007). An All-volunteer army? Recruitment and Its problems. Political Science and Politics, 40(3), pp.467-471.
- 11. Lewis, M. R. (2004). Army Transformation and the Junior Officer Exodus. Armed Forces & Society, 31(1), pp.63-93.
- 12. Münz, R. (2007). Aging and demographic change in European societies: main trends and alternative policy options. World Bank, Social Protection, SP Discussion paper 0703.
- 13. Münz, R. (2011). The future of Europe's labour force with and without international migration, pp.15-26 in J.O. Karlsson and L. Pelling (Eds.), Moving Beyond Demographics: Perspectives for a Common European Migration Policy. Stockholm: Global Utmaning.
- 14. Österberg, J. (2017). Preparatory Military Training: An Experiment in Integrating Minorities in the Swedish Armed Forces, Res Militaris, ERGOMAS issue n°5, November 2017.
- 15. Österberg, J., Rydstedt, L., Kleiven, J., & Fors Brandebo, M. (2017). The path to job satisfaction. Applying the theory of purposeful behavior to military conditions. Journal of Defense Resources Management 8 (1), pp.27-42.
- 16. Suman, M. (2015). Shortage of officers is the Root-cause, Indian Defence Review, May 29.
- 17. Szvircsev Tresch, T. & Leuprecht, C. (Eds.) (2010). Europe Without Soldiers? Recruitment and Retention Across the Armed Forces of Europe. Montreal: McGill-Queens University Press.
- 18. Weber, M. & Österberg, J. (2015). A Principal Component Analysis of Swedish Conscripts' Values and Attitudes towards their Military Education, Res Militaris, an online social science journal, vol.5, n°2, Summer-Autumn/été-Automne 2015.