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## **Chapter 3B – MANAGEMENT OF RECRUITMENT, SELECTION AND CLASSIFICATION**

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### **3B.1 EXECUTIVE SUMMARY**

This chapter focuses on the management of recruitment, selection, and classification of military personnel. The term ‘management’ as used in this chapter does not refer to the conduct of the day to day practice, but to the overall organization of a highly complex process aimed at providing the Military with adequate recruits. Particular attention is devoted to those areas where managerial decision-making is of critical importance in shaping the outcome of the whole process.

The chapter looks at the definition of recruitment goals and sheds some light on often unspoken basic options. Attracting applicants is only touched in this chapter as a separate chapter deals with Advertising and Marketing in Recruiting. Next section covers applicant processing and discusses different opinions of involved parties. To understand the whole process better, it is important to acknowledge these sometimes quite opposite opinions. Next topic is about applicant assessment: how required Knowledge, Skills, and other Attributes (KSAs) are identified and measured.

In addition, a number of special topics are discussed for these are very present in current discussions concerning recruitment for the Military. The special topics encompass accountability for the taken decisions, fairness for women and minority members, process management, the question whether skills and abilities must be sought through selection or acquired through training, downsizing, and the transition from conscription and the tri-service approach.

Finally, following practical recommendations are given:

- Challenge basic options;
- Recognize different visions pertaining to S&C;
- Use adequate methodology to define selection standards;
- Work towards utility analysis;
- Use batch classification;
- Make sure S&C decisions can be justified;
- Use quota or group-membership benefits when proportional representation is sought;
- During downsizing, avoid limiting recruiting; and
- Where possible, use a tri-service approach.

## **3B.2 INTRODUCTION**

A few rules about personnel seem to apply universally to organizations and can therefore be considered axioms. A first rule states that no organizations can exist without personnel. A second one tells us that no one remains a member of personnel for an organization forever. As a consequence, for an organization to survive, it will need to replace personnel that leave. The Military is no exception to this set of rules. The management of attracting, assessing, and classifying new members of personnel for the Military is the topic of this chapter.

Some readers might infer from the title that this chapter will encompass practical management issues such as what tests must be used, how long can applicants be tested, what database management system should be used, etc. That is however, not the purpose of this chapter. Rather, we will focus on methodological principles, which we believe to be somewhat specific for the Military. Once these principles are clear, deriving practical consequences should be easily achievable. There is a vast literature available to help.

The Military is a large organization, even in smaller countries and in times of severe downsizing. Selection methods that are applicable to very small businesses cannot be used for the Military. In very small settings, it is feasible to have one person assessing all applicants over a short period of time and actually compare the applicants before choosing the right one. In larger systems, this approach is doomed to fail. In order to be effective, recruiting for the Military must be structured and managed in accordance with a set of principles that we will try to describe and illustrate in the following pages.

Before setting out for the remainder of the chapter, it might be useful to define a few terms that will be used:

- A vacancy: a single position or post of employment that is unfilled or unoccupied and for which a new recruit can be engaged.
- An entry: a set of identical vacancies.
- Selection: the assessment of suitability of applicants for the entries they want.
- Classification: the assignment of applicants to entries in a multiple-applicant, multiple-entry setting.

## **3B.3 DEFINING THE RECRUITMENT GOALS**

### **3B.3.1 In General**

Military organizations tend to be very well structured. In order to generate specific capabilities, units are designed. Their design includes possible missions, equipment, functional organization, and human resources. In the end, every unit has a list of positions along with their required competency profile. As we already mentioned, every member of personnel leaves his or her position sooner or later and needs to be replaced in order to maintain the unit's operational status. Two major sources of potential replacements can be considered: internal shifts of personnel or external recruiting of new personnel. Of course, shifting personnel is not a complete solution since somewhere down the line, a position will have to be filled by a new recruit.

Opening a new vacancy as a reaction to the loss of a member of personnel would of course prove to be a very poor recruiting policy. The reasons why are manifold. Here are a few.

First, there is the time delay between opening a vacancy and having a trained recruit able to fill that position. In general we can say that between those two events, following things need to be done: attract applicants, select and classify them, enlist them, train them and allocate them to the position that needs to be filled.

That process can easily take from months to years depending on the ease of recruiting and the length of the required training. To cope with that problem, anticipation is needed based on the certainty that a member of the Military will leave at a certain date (e.g., end of contract, retirement, etc.) or based upon statistical expectations.

Second, we need to consider the possibility that a person is lost between the moment he or she is accepted to enlist and the moment he or she can effectively be employed in the position that must be filled. All reasons for this are extensively covered in other chapters. The bottom line is that recruitment objectives must be adjusted for this. Statistics again, come as a useful tool to deal with the problem.

Third, there are many constraints coming from the training side as to when can be recruited for what trades. It is indeed unfeasible for any training command to start a specific training for each kind of entry say every week or month. That means that delays will occur between the time a person is ready to take the appropriate training and the time the training command can let the training begin.

When these and probably many other aspects have been taken into account, the recruitment objectives finally can be set. These will include the numbers to recruit, the selection criteria and the timing for enlistment for each entry that needs to be recruited for.

### **3B.3.2 Basic Options**

When we have a look at the entries the Military recruit for, a number of basic and often implicit options become apparent.

Most Military distinct three personnel categories: enlisted personnel, non-commissioned officers (NCO) and officers. In most settings, a direct entry to each of them is possible. This however, is not a necessity. In the US for instance, there is no direct recruiting of NCOs. This personnel category does exist, but is composed exclusively of persons that joined the Military as enlisted personnel and got promoted. In Israel, there is only a recruiting of enlisted personnel and the NCOs and officers are drawn from the lower category. The chosen option bears upon propensity and personnel quality. While it is easy to assume that NCOs will be better assessed and more experienced when they are drawn from a pool of enlisted men than from a pool of civilians applying for direct entry, it also may have a negative effect on the propensity to become an NCO.

A second thing that is apparent is that in general only the lowest rank of each personnel category is made available for recruiting: You can join the Military with the prospect of being a second lieutenant after your academy training, but you cannot apply to become a major or a general. In our opinion, the reasons for this developed historically and are twofold. On the one hand, competencies gained through military experience are believed to be a major subset of the competencies needed in more senior positions. On the other hand, the military promotion system is very much based on the assumption of lifetime employment. Promotion is usually automatic after a number of years of service or based upon a suitability assessment that cannot take place before a number of years after the previous promotion. We believe that both causes can be challenged.

In some countries where the principle of lifetime employment is still embraced by the Military, recruiting is limited to the combat trades. The idea behind that choice is that personnel in combat trades must be young in order to meet the harder physical requirements. In order to keep these people at work in the Military well into their fifties, it is necessary to employ them in less demanding jobs once they are say 35 or 40 years old. So, a system is put into work where all young people join for combat trades and change to less demanding trades once they reach a certain age. From a recruitment perspective, such systems have two major drawbacks. One, they severely limit the diversity of jobs for which the Military recruit and that significantly reduces the

segment of the population that is prepared to join. Secondly, such a system assumes that the distribution of qualities needed for the physically less demanding trades is present in the group of persons hired for the combat trades and that is questionable.

In this section, we just reviewed a few basic options that are taken in many military recruiting settings. We did this to illustrate the fact that these options bear an influence upon the recruiting and suggest putting these under scrutiny when recruiting situations are less favorable.

### **3B.4 ATTRACTING APPLICANTS**

Attracting applicants is the next logical step in trying to meet the recruitment goals. This chapter will however not deal with this important step as it is covered in Chapter 3A on *Advertising and Marketing*.

### **3B.5 PROCESSING APPLICANTS**

After having defined the recruitment objectives and hopefully having had some success in attracting applicants, we face a situation in which we have a number of applicants for a number of (usually different) positions. The question that now needs to be addressed is who are we to enlist and for what entry?

The way in which the question will be solved depends on a number of fundamental, yet often-implicit beliefs of the decision makers in charge of recruiting. Let's briefly review some possible points of view.

The I/O psychologists usually look at psychometric aspects of the recruiting situation. They try to predict some external criteria such as training results based upon selection data. The relative importance of the different selection tools is then derived from their incremental validity. Although their approach is very valuable, it easily can be biased for two reasons: first there is the choice of the external criterion. For reasons of standardization and duration of the feedback loop, it is very appealing to them to choose training results as validity criterion. Yet it is very doubtful whether this is the best criterion to choose since it is only distantly related to job performance. Secondly, as an artifact from the used statistical methods, it very well may be that an important attribute is overlooked. That will be the case when the measurement of the attribute is particularly difficult as it is the case for personality and motivation for instance. That translates in relatively low reliability and validity and consequently in a lower weight in the selection procedure.

Training commanders have a different view. They usually are keen on getting recruits that can be trained easily. There is nothing wrong in that unless the KSAs required to succeed in training depart from those needed for later job performance. That typically can occur in officer training at military academies. In such situations, training commanders will influence the way selection and classification (S&C) works to maximize academic qualities at the expense of qualities that are less useful in a training setting such as leadership for instance.

Politicians tend to have a slightly different view on recruiting for the Military too. They don't focus exclusively on what they perceive as being the best quality for the Military. Instead, they see the Military within a broader societal perspective. In that context it may for instance be important that the composition of the Military reflects the overall sociological composition of the country. This brings them to take decisions to ensure a balanced representation of linguistic or ethnic groups and both genders. In some cases, the Military is also used to provide social promotion to less favored groups and measures are taken to accept (certain numbers of) persons with very low educational credentials or from specific ethnic background.

The military commanders have probably the best view on the job performance of military personnel. That knowledge can be very useful in directing the recruiting and selection effort. Yet, since they only deal with the combined outcome of selection, classification, and training, it is often difficult for them to differentiate between actions that need to be undertaken in the different phases preceding job performance. Military commanders also usually lack the adequate methodological background to influence the used techniques in an appropriate way. It therefore is highly recommended that managers and technicians of S&C work in close relationship with the military commanders at different levels.

The applicants finally are usually not considered to be part of the ‘decision makers in charge of recruiting.’ Yet they are, even if their decision-making is limited to their own person. Stopping their selection process or not accepting an entry that is proposed to them are the decisions they can make and these affect the overall recruitment outcome. That is why it is important to incorporate personal preferences and interests in the S&C decision-making and to adapt the recruitment process to meet their collective or even individual needs and expectations as far as possible.

The described points of view need to be combined in order to reach a practicable and acceptable recruitment system. For each entry, a set of pertinent attributes must be identified along with their relative importance in determining an applicant’s suitability for the entry. This will essentially shape the applicant processing, as practical answers have to be provided to questions such as:

- How much overlap is there between the pertinent attributes for different entries the candidate is applying for?
- What measurement tools are needed to assess the different attributes (how long does it take, is it used individually or in group, must all applicants for an entry be assessed simultaneously [e.g., exams])?
- Is there interaction between the assessment tools (is there an order effect, is there a maximum workload for the applicant during a certain period of time)?
- Can the assessment be done remotely (at a decentralized location or via the Internet)?
- Does the applicant need additional information or practice to be able to be assessed (e.g., An applicant needs information on different trades before being able to express his preference. A pilot-candidate needs study time and maybe practice before being ready to be assessed on a flight simulator.)?
- Does the organization need time to assess attributes in the absence of the applicant (e.g., for security clearances)?

The answer to these questions together with the number of applicants that must be processed, the time that is available for doing so, the available resources (personnel, material, information systems, facilities) will further narrow down the solution that is used to process the applicants.

Now we have set the conceptual framework for managing selection and classification, let us have a closer look at more specific aspects. We’ll first deal with applicant assessment and decision-making.

### **3B.6 APPLICANT ASSESSMENT**

As stated earlier, the recruitment goals do not only encompass numbers and a timeframe to meet these goals, but also a set of requirements concerning the applicants that are to be enlisted. In this section, the origin of these requirements and the tools that can be used to assess the applicants is discussed.

The origin and the scope of these requirements are varied. From a methodological point of view, selection requirements should be derived from performance appraisal on the job. Job analysis, occupational measurement or subject matter experts are among the most widely used methods to do so. Of course, the Knowledge, Skills, and other Attributes (KSAs) needed to perform well on the job, are not the sole merit of S&C. Training and the particular circumstances in which the job has to be done, are important determinants of job performance as well. We'll discuss the issue of selection versus training later in this chapter. In addition to the requirements directly deriving from the job performance, other sources of requirements, often only remotely related to job performance, are still quite common: citizenship, age, general biometric standards or gender are examples of such requirements. The origin of these requirements is more often historical than based on empirical evidence. There are for instance good examples of soldiers not having the country's nationality, yet being very effective within the Military (e.g., French foreign legion or the Gurkha in the United Kingdom). Sometimes economical reasons are invoked to deny access to particular entries to certain groups (e.g., women not allowed to become fighter pilots because of the anticipated costs resulting from unavailability due to pregnancies). There is a tendency to challenge requirements that cannot be linked to job performance and courts seem prepared to rule against such requirements.

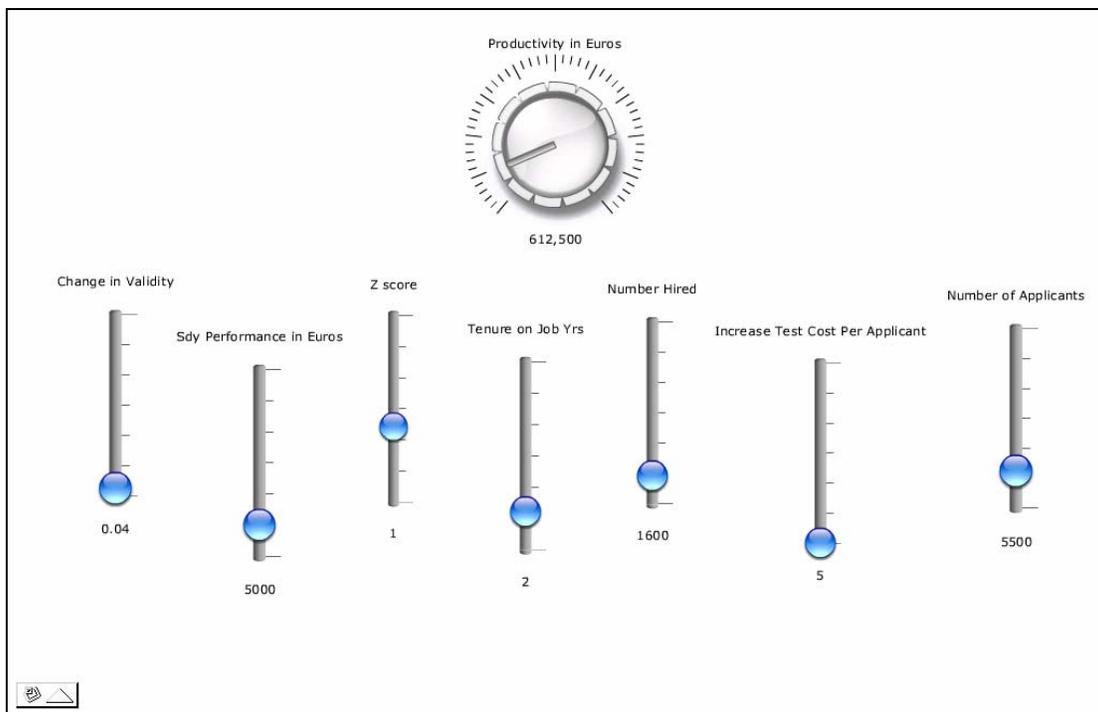
The identified requirements do not only enumerate the attributes that are pertinent for an entry, but they usually also specify the desired level of these attributes. This comes in two formats: cut-off scores and attribute weights. A cut-off score is a level of a measured attribute under which an applicant is rejected for an entry. The attribute weights express the relative importance of the attributes in determining the suitability of the applicant for an entry. We'll discuss the use of cut-off scores and weights later.

Let's now take a closer look at the appropriate assessment tools. Given the variety of attributes that need to be assessed, it is no wonder that the tools needed come in very different shapes as well. These can include administrative checks, psychometric tests, interviews, medical examination, scholastic exams, physical fitness tests, security checks, and many others. Yet, despite this apparent variety, we can rate all these tools on three important aspects that are relevant for their use inside S&C systems: their measurement scale, their quality, and their costs.

A sometimes criticized (Velleman and Wilkinson, 1993) but still useful measurement scale taxonomy was proposed by S.S. Stevens (1946). Stevens enumerates four scale types (nominal, ordinal, interval, and ratio) according to the mathematical operations that are allowed to perform on the data. Recognizing the scale type to which selection data belong is paramount when we need to combine scores originating from a variety of selection tools in order to compute scores expressing the suitability of an applicant for an entry.

A second characteristic of assessment tools is their quality. The Standard Error of Measurement (SEM) indicates how much individuals' scores would be expected to vary if they had taken a different set of questions or if they were to retake the test. Some assessment tools have very small SEMs (e.g., biometric) while other have a quite large one (e.g., personality). Large SEMs have a negative effect on reliability and hence predictive validity. In addition, predictive validity depends not only on the quality of assessment during selection, but also on the cross-temporal and cross-situational stability of the measured attribute and the reliability of the used criterion. For relatively stable attributes, a large SEM (usually both at the predictor and criterion side) will lead to severe underestimation of the true relationship (if present) between the attribute measured during selection and job performance. In practice, two approaches to this issue are found; either the low quality of the assessment tool is recognized and that tool is not used or only with a very limited weight or the measured attribute is deemed to be so important that it is used in the decision process despite the low quality of the used measurement tool. In the latter case, it is paramount to be very cautious and to take the SEM into consideration. In any case it is recommended to do whatever is possible to lower the SEM of the assessment tools.

The third pertinent aspect of selection tools is their cost. Selection can easily be seen as a cost-saving activity. If it weren't for the costs related to training, it would be tempting to enlist all applicants and only keep the ones who succeed in training best or perform best on the job. Yet, when the number of applicants is significantly larger than the required numbers, this approach is far too expensive. The task of the S&C system is to identify these applicants that will be hired. While doing so, two somewhat contradictory goals need to be pursued simultaneously: minimizing the prediction errors and minimizing the costs of selection. In order to model this, 'utility models' were developed. A first attempt called the Taylor-Russell tables was developed by H.C. Taylor and J.T. Russell (1939). They used three parameters to build their tables: the validity coefficient, the 'base rate' (proportion of able persons in the applicant pool) and the 'selection ratio' (proportion of applicants to be selected). Their tables failed however to include a number of important elements. A major advance in the development of utility models was later achieved by Brogden, Cronbach and Gleser (Cronbach and Gleser 1965). Their 'BCG' model is basic linear regression equations for determining the impact of improved personnel selection on workforce output. It incorporates job performance measured in monetary value and allows the estimation of gain in productivity in dollars as a result of using a modified selection procedure. More recent applications derived from the BCG model (Schmidt and Rauschenberger, 1986) show the gain in productivity in an interactive way for a given recruitment situation as illustrated in next figure (Horey, 2005).



**Figure 3B-1: This Tool Allows Describing a Recruitment Situation and Subsequently Estimating the Costs and Benefits of Adding a New Selection Tool Based upon the New Tool's Incremental Validity.**

It is hard to overestimate the importance of utility analysis for S&C systems for it allows quantifying the usefulness of the different selection tools. Unfortunately, there are a number of prerequisites: stable prediction models and monetary value estimates of both selection costs and job performance. In practice, it often appears difficult to have both.

### **3B.7 DECISION MAKING**

Two types of decisions have to be made concerning the applicant. First, it has to be established whether or not an applicant is eligible: does he meet the requirements to be enlisted? That decision has to be made for each entry the person is applying for. A question of particular interest related to this is when, or based upon what evidence, the decision can be reached. The second decision deals with all applicants that have been declared eligible for one or more entries. The question at stake is now: who among the applicants will be accepted and for what entry? Let us discuss both types of decisions now.

#### **3B.7.1 Applicant Rejection**

Let us consider a simple case in which a person applies for a single entry. For the sake of clarity, we'll take the example of Mr. A applying for the entry 'Infantryman'. During the selection process, different attributes will be assessed. If the applicant meets all requirements, he will be considered eligible for the entry. If not, enlistment for the entry will be discarded as an option. We'll now review decisions that can be made based upon individual or combined attribute scores.

##### **3B.7.1.1 Rejection for a Single Attribute**

In practice, it is often seen that a person is rejected for an entry based upon the measurement of a single attribute. For instance Mr. A could be rejected for his eyesight is completely deficient or because he doesn't meet the physical fitness standards. In theory, we can distinguish two cases, depending on the measurement level of the assessed attribute: categorical or metric.

For categorical measures, a person only belongs to one of a limited set of possibilities. Education level is one example. For instance, educational level could be categorized using one categorical variable with three classes: 'Less than high-school', 'High-school' and 'More than high-school.' For some reason, based upon empirical evidence, selection ratio or HR policy, it could be decided that persons belonging to the class 'Less than high-school' cannot be enlisted. If Mr. A happens not to have finished high school, his application ends there.

For metric measures, an applicant can obtain any one of a vast range of scores. Typical metric measures encompass test- or exam scores or biometric data for instance. Rejection of an applicant is then based upon a cut-off score. A cut-off score consists of a particular value on a metric or ordinal selection variable under which an applicant is unconditionally excluded from further participation in the selection process for an entry. The variable can be a simple measurement or test score, but also can be a composite score. One fundamental problem is due to the measurement error of the used selection instrument. To see the problem, let us consider what decisions are taken in the immediate neighborhood of the cut-off score. Imagine following theoretical situation. Say there is an applicant having a true score equal to the cut-off score and imagine the variable to be a true continuous one, which implies that the probability of obtaining an observed score, which is exactly the cut-off score, is zero. The dramatic consequence of what is described here is that whether the observed score will be larger or smaller than the cut-off score is entirely random and that is not very defensible. In fact, considering the usual magnitude of the standard errors of measurement and the tremendous consequences for a candidate of obtaining a score leading to rejection or not, all thresholds are heavily questionable. A second important problem is connected to the association between the selection variable on which the cut-off score is set and whatever external criterion is used. If we take a typical example of external criterion, say training performance, and study the relation between the selection and the criterion, we'll usually end up with a linear or curvilinear relationship. In selection practice, a pattern showing extremely low training results for low

results up to a certain value on the selection variable (which would be the obvious choice for a cut-off score) and showing acceptable or even good training results from that point on is most unrealistic. In practice, the relationship can often be represented by logistic regression curves. If a cut-off score were needed, it certainly would be advisable to choose it in the area where the logistic regression curve is the steepest – but then again, the exact choice of a point on the scale remains essentially arbitrary.

### **3B.7.1.2 Rejection for Combined Assessment (Composite Scores)**

In many S&C systems, rejection of applicants is based upon composite scores. These scores combine a number of individual test scores and are often used to prevent the assignment of a person to specific jobs or job families. For instance, the U.S. Air Force Mechanical Aptitude Score is computed from the following ASVAB<sup>1</sup> tests: Mechanical Aptitude = General Science + Mechanical Comprehension + 2x Auto/Shop. This score is, for instance, used to reject applicants with poor results for the Helicopter Maintenance trade. In general, rejection based on composite scores is more acceptable than that based on single attribute measurement; this approach addresses one of the major drawbacks of single attribute rejection: the impossibility to compensate for a particular weakness.

### **3B.7.1.3 Risks and Benefits of Rejecting Applicants**

From the management perspective, rejecting an applicant for a single attribute or composite score has both beneficial and potentially harmful consequences. The beneficial facet lays in the fact that the selection process is aborted. This means that from the organization point of view, no more costs associated with the further selection process of the applicant have to be endured. That benefit is a major reason why selection activities with a high rejection rate are usually placed at the beginning of a selection process. From the applicant side, this is also to be considered beneficial. If the applicant is rejected for the right reasons, which means that there would be no point in carrying on with the selection process since the final result would be in any case that the applicant doesn't get the entry he applied for, it is advisable to abort his selection process as soon as possible. By stopping him in an early stage, it will save him time and effort, possibly travel money and the increasing stress of remaining in competition for a job. On the other hand, terminating one's application early involves a number of risks. We'll briefly discuss three.

#### *3B.7.1.3.1 Impossibility to Compensate for Weak Results*

The first risk is about the fact that a final decision is made before all pertinent attributes are assessed. That means that a person doesn't get the possibility to compensate for a particular deficiency. In systems where overall aptitude is based on a weighted sum of scores for instance, this can become apparent. In such systems it is perfectly possible that a person with a high overall aptitude does not meet the requirements for a particular attribute whereas another person who meets all requirements ends up with a much lower overall aptitude. The question here is who is the best person to hire? The answer depends on how solid the reasons to reject the first person are. Maybe a little extra attention for the deficiency shown by the first applicant is enough to help him to be the best recruit. If that is likely, a possibility should be available to grant him a waiver for the attribute where he doesn't meet the standard. In the US for instance, enlisted personnel should have a high-school degree. It is however possible to enlist non-graduates if they show relatively high aptitude scores.

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<sup>1</sup> ASVAB is the Armed Services Vocational Aptitude Battery.

### *3B.7.1.3.2 Supply and Demand Issues*

In selection settings where early rejection is applied, the entry standards are set in advance, without taking the score distribution of the actual applicants into account. This might have adverse consequences when, for some reason, the number or the quality of the actual applicants don't match the expectations. This could lead to difficulties in reaching the recruitment goals. Of course, one can argue that the entry standards must not be changed in order to maintain recruit quality. On the other hand, given the fact that there is no selection process with zero false negative decisions, it might be worthwhile considering lowering entry standards in time of shortages. The point is that maintaining or adapting entry standards should be a decision made by the HR director while being aware of the current recruitment situation. This is not compatible with early rejection.

### *3B.7.1.3.3 Justification*

Finally, an important drawback of the use of rejection is that it is not well accepted by the applicants. This holds especially for rejection based upon a single attribute. Indeed it is hard to accept that you missed the job of your dreams because you just were one point short for a test. That especially holds when discussions about standard error of measurement of the test or the arbitrary level of the applied cut-off score are hardly convincing. In general, it will be easier for an applicant to accept not to get the job he wants because other applicants were found to be more suitable than because of not meeting some questionable standard.

In conclusion, I would recommend using applicant rejection with caution. In general, two reasons seem adequate. First, there are circumstances in which it is obvious that an applicant has no chance at all to be enlisted for the desired entry. If it is clear that irrespectively of both the quality of other attribute scores the applicant might obtain and the possible negative evolution in selection ratio, the person will not be accepted, then it is advisable to stop his selection process. Secondly, when the number of applicants is large compared to the vacancies, the probability of enlistment of an individual not only depends on the applicant's quality, but also on the aptitude distribution within the applicant pool. Again, if in such circumstances it becomes clear that an individual has no chance at all to be accepted, it is adequate to stop the selection for that person. How small the selection-ratio needs to be per entry before considering rejecting weaker applicants, will probably depend on the stability of the recruitment situation.

## **3B.7.2 Assignment (Classification)**

The situation in which assignment or classification starts playing a role is one in which we have one or more applicants who are eligible for one or more entries. For a given set of applicants and jobs, numerous solutions to allocate the persons to the jobs are conceivable. We next will demonstrate that the choice of the used classification methodology has a significant influence upon the level of job specific aptitudes that can be expected within the groups of persons that are assigned to the different entries.

Among the possible classification strategies, two broad families can be identified. The first family aims at immediate decision-making. That usually means that a decision about the allocation of a person to a vacancy is done while the candidate still is at the selection center, disregarding the aptitudes and other relevant attributes of the following applicants. The second family on the other hand is referred to as 'batch classification'. This approach compares all persons in the applicant pool before making decisions. It will be shown that the second type of approach produces far better results.

When we consider the highly complex multiple-applicant, multiple-job situations that we encounter in Military recruiting settings, the logic can be described as follows. For each job, the relevant attributes must be identified and their relative importance is to be known. On the applicants' side, each of them needs to go

through an assessment system that will evaluate his or her aptitudes and interests and define an individual profile. Based upon the individuals' profiles and the jobs profiles, the utility of assigning each person to each vacant job can be computed. Typically, the required attributes and their relative importance will differ for each trade. And whereas an individual's skills and aptitudes are essentially independent of the examined job, his or her degree of interest for each kind of job usually varies. This means that the utilities we're interested in may vary from person to person and for each person, from job to job. When we consider a group of vacancies and the applicant pool applying for at least one of the vacant jobs, we could represent the decision-making problem by means of a matrix. We could have the jobs as column headers and the persons as row headers. Each cell would then contain the utility of assigning the row-person to the column-job. The task at hand is then to link persons and jobs. That is referred to as classification. The number of possibilities to assign applicants to jobs rapidly becomes astronomical as the number of jobs and applicants increase and that makes the problem both challenging and interesting. The interesting part comes from the fact that this problem has lots of degrees of freedom and that it makes sense to investigate the relationship between the method used to solve the classification problem and the quality of the reached solution. We now will discuss a few methods that are used to solve the classification problem and illustrate how the chosen method affects the quality of the hired group. The examined methods are:

- Immediate classification;
- Single criterion batch classification;
- Batch classification based upon multiple rank order criteria (parallel processing); and
- Smart classification (i.e., batch classification based upon multiple rank order criteria using an optimization algorithm).

The first method, called '*immediate classification<sub>2</sub>*' assigns an applicant as soon as all his relevant attributes are assessed. In order to decide about his assignment, his 'profile' is compared to a set of trade specific criteria. If the person meets the set criteria for his preferred job, he gets it. This system, also known as a 'first comes, first served' system is widespread for enlisted personnel. The main reason for this is that it usually is considered to be important to tell the applicant immediately what job he will get.

The second method that we will refer to as '*single criterion classification*' is based upon a single rank order criterion. In this method, all applicants are assessed first. They subsequently are rank ordered by their score on one (composite) score. Then the applicants are processed sequentially, starting with the best-ranked person. The preferences of the applicant will then be examined sequentially and the applicant will get the job he prefers if he meets the other eligibility criteria and there still is a vacancy available for the chosen trade.

The third method, called '*multiple criterion classification*' is again a batch classification method. Now however, a ranking is made for each trade separately, based upon trade specific weighted criteria. The classification can for instance be obtained in following way<sup>2</sup>: For each trade a table is made. The tables contain three fields: the person identification, the payoff or utility assigning the person to the trade, and the rank of their preference for the table-entry (a value 1 indicates that the entry is the first choice of the applicant, 2 is his/her second choice, etc.). The tables are sorted in descending order of the payoff. The method then examines the number of vacancies per entry. If n is the number of vacancies, then the method will assign persons to the trade if they are among the n best ranked persons for the entry **and** the entry is their first choice. This would be done for all entries. Once a person is assigned to a job, his or her record is deleted in the other tables. This causes shifts in the tables, potentially leading to new assignments. This procedure is continued as

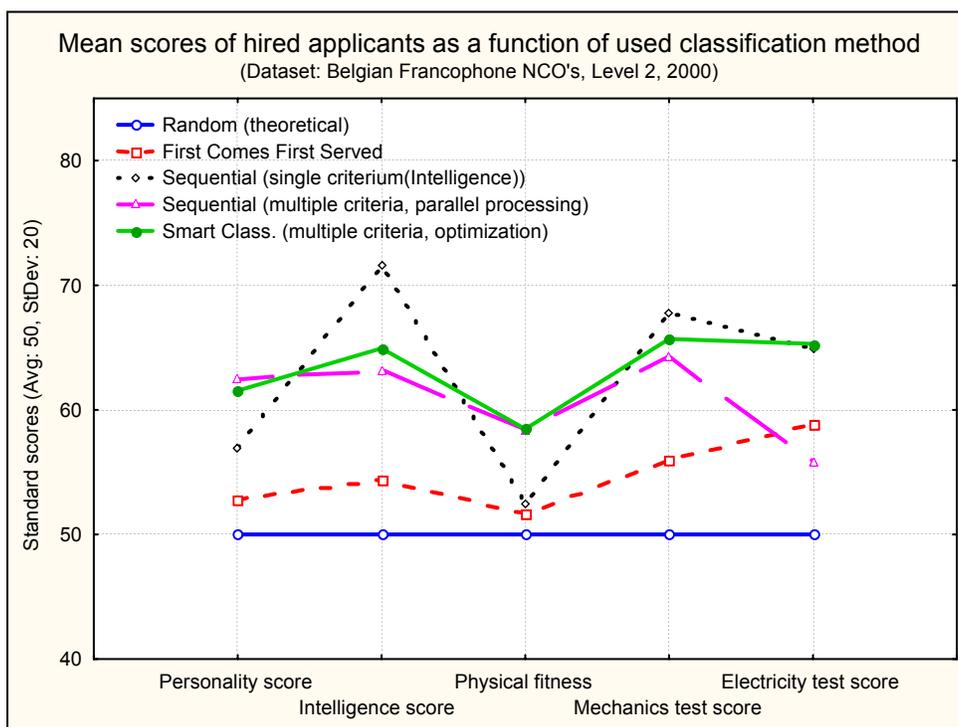
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<sup>2</sup> The described method is called the 'sequential parallel assignment method' and was proposed by the Belgian Royal Military Academy.

long as persons can be assigned to their first choice. Then, after adapting the number of vacancies per entry (set to the original number minus the number of persons assigned to the entry in the run examining first choices), the second choice is examined in a similar way. Then the third choice is reviewed and so on<sup>3</sup>. The method stops as soon as there are no more vacancies or all choices have been reviewed.

The fourth and last method is the so-called ‘*smart classification.*’ This is a batch classification method in which the aptitude estimate based upon trade specific weighted criteria and the preference for an entry are integrated into a single utility value for each possible person-job combination. Then, these values are organized in a single matrix featuring the persons as row headers and the jobs as column headers. Next, the persons are linked to jobs using an optimization algorithm that maximizes the sum of utilities for the group of assigned persons<sup>4</sup>.

In order to assess the outcome of the different classification methods, we took an existing dataset describing Belgian NCOs<sup>5</sup>. The dataset encompasses 393 eligible<sup>6</sup> applicants for 22 trades and a total of 94 vacancies. The measures shown in the next graph are the average scores for different selection variables of the persons that were assigned by the different classification methods.



**Figure 3B-2: Mean Scores of Hired Applicants as a Function of Used Classification Method.**

<sup>3</sup> In this method, it can happen that an applicant is assigned to his/her second choice for instance because at that time s/he doesn't qualify for the entry of his/her first choice. If, during the classification process, due to the deletion of the records of persons who were assigned to an entry of a higher choice, this person's first choice becomes available for him/her, then the person will be assigned to his/her first choice while the vacancy of his/her second choice will be made available again for other persons.

<sup>4</sup> The described method is called ‘The Psychometric Model’.

<sup>5</sup> Recruitment for Belgian francophone NCOs, level 2 in 2000.

<sup>6</sup> By ‘eligible’ we mean applicants that meet all requirements and therefore can be assigned to a job as NCO.

First the bottom line is given as a benchmark. It represents the (standardized) averages for all persons in the applicant pool. The next line (with open squares) is based upon the immediate classification. The third (dots with open diamonds) is produced by the single criterion classification. In this example, the criterion that was used was the intelligence score. So it isn't surprising to see the very high average intelligence score produced by this method. It is interesting to note that the averages of correlating aptitudes (mechanics and electricity) benefit from this method while these of uncorrelated attributes (personality and physical fitness) don't. The fourth line (open triangles) originates from the multiple criterion classification. This method produces a more balanced profile. Finally, the last line (filled circles) comes from the smart classification. The line shows a balanced solution that is markedly better than the one produced by the immediate classification and slightly better than the multiple criterion classification<sup>7</sup>.

In assessing the outcome of the different classification methods, it is also useful to look at some other results. The following graph presents the average utilities, how well the applicants' preferences are respected and the fill rate.

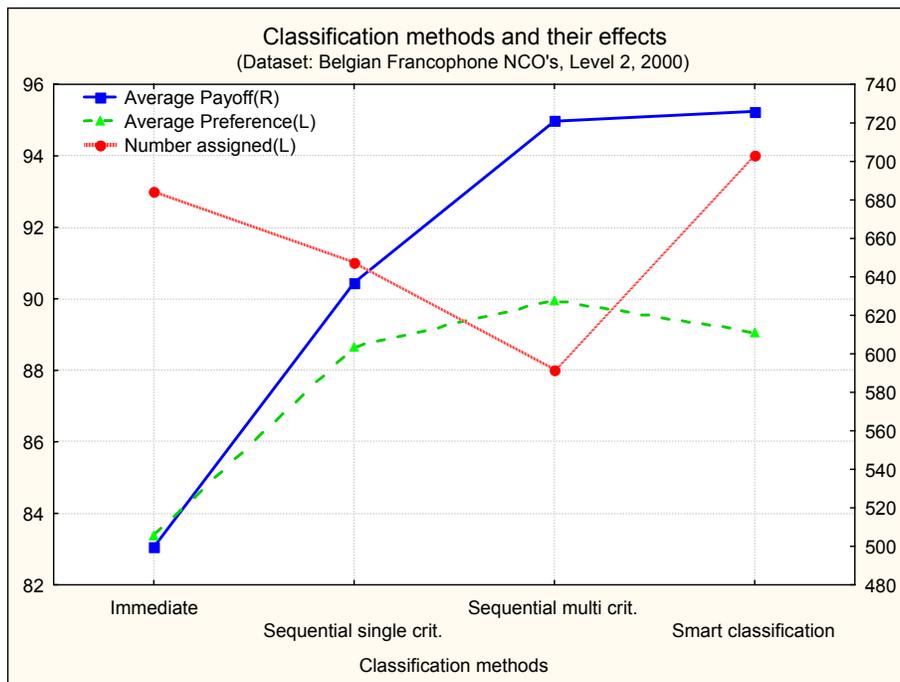


Figure 3B-3: Classification Methods and their Effects.

When looking at the average utility (payoff) of the assigned persons, it is quite clear that an increased complexity of the classification method results in an improved quality. This also seems to be the case with the respect of the applicants' preferences. In our dataset, the applicants expressed their preference for each trade on a scale ranging from 1 to 99.99 is the highest value and is given to the most preferred trade. The graph presents the average of the preference of the applicants for the trade they were assigned to. An increasing average reflects a higher degree of satisfaction in the hired group. The third line, representing the number of

<sup>7</sup> Although this doesn't entirely show in this example, unpublished research by the author based upon a large number of datasets demonstrates this statement.

assigned persons, also puts the preference line in a broader perspective. For the preferences, we see that the average resulting from the multiple criteria classification is somewhat higher than the one produced by the smart classification. This is not in accordance with findings based upon other datasets demonstrating that the smart classification usually produces the highest degree of satisfaction. The reason why this doesn't occur in this dataset might be due to the fact that the multiple criteria classification only succeeded to fill 88 out of 94 vacancies. In such circumstances, the comparison of mean preferences is biased and overestimates the mean preferences obtained with the multiple criteria classification. As one can see, only the smart classification was able to fill all vacancies. The reason why the sequential methods couldn't is due to the fact that for some trades, only a few applicants qualify. By classifying them sequentially, the methods assign them without taking into account that this might create a problem for more critical trades. Only the smart classification considers all trades and all applicants globally and has the necessary flexibility to solve the problem.

### **3B.8 SPECIAL TOPICS**

#### **3B.8.1 Accountability**

Selection and classification systems are increasingly called to account. More and more applicants, their parents, or even lawyers tend to challenge S&C decisions more often than they used to. This is a societal evolution recruitment managers need to acknowledge. In order to sustain criticism, it is recommended to develop and maintain an adequate monitoring system aimed at documenting decisions and justifying them. Let us have a closer look at both aspects.

##### **3B.8.1.1 Documenting Decisions**

S&C decisions are based upon attribute assessment of the applicant. Some of these assessments are easily traceable and can be retrieved when the applicant challenges the decision. When an applicant disagrees with the test-score he obtained for instance, it usually is possible to retrieve the answers he gave to each item and what time he needed to answer them. There is evidence that can be shown to the applicant. Other elements are usually less documented. What was said during the interview? Did the interviewer or classifier suggest things or did he try to convince the applicant not to pursue a course of action? If what really happened was not recorded well, these questions may lead to endless discussions. It is therefore advisable to record these interactions by means of video or at least audio. In S&C systems where the applicant's personality is assessed, it is paramount to be able to demonstrate the evidence upon which the personality assessment relies.

##### **3B.8.1.2 Justifying Decisions**

Being able to retrieve the elements that lead to a decision is not enough. The second requirement to have an accountable S&C system is to be able to demonstrate the rightfulness of the decision itself. There must be evidence at hand that the assessed attributes are related to and pertinent for the trade the applicant is applying for. The assessment must also be of good quality implying reliability and validity. The integration of attribute measures into more general aptitude scores must be based upon empirical evidence or at least upon an acceptable decision-process such as the use of subject matter experts. Finally, the classification method must also be accountable for.

Creating and maintaining an S&C system that really is accountable requires both extra personnel and material resources.

### **3B.8.2 Fairness**

The issue of fairness will be discussed only briefly in this chapter. A specific chapter on ‘Gender and Minority Issues’ covers this topic in more details. In this section, we’ll have a closer look at methodological aspects.

From a methodological point of view, S&C systems are designed to identify the most suitable persons for the jobs irrespective of their gender, age or ethnicity. Yet, in many cases the probability of being hired differs significantly for members originating from different gender-, age- or ethnicity-groups. Two major causes can be identified for this. One is acceptable and the second one is not.

Identical probability of being hired can only be expected when the distribution of pertinent attributes is similar in the different subgroups. Empirical evidence shows however that this is not always the case. Let’s us take an example. If there is a need to recruit infantrymen (or should we speak about infantrypersons?) and accept that physical strength is an important attribute for job performance in the infantry, we will assess physical strength and give the attribute an important weight in our S&C system. Given on the other hand that men are known to perform better on physical strength tests, it should come as no surprise that a higher proportion of men is enlisted for the infantry compared to women.

A different situation occurs when there are reasons to assume that the distribution of the attributes is similar in the subgroups, but that the score distributions from the attribute measurement are different. This results from the use of biased assessment tools and that is to be proscribed. While it is trivial to detect differences in score distributions, it is much harder to find evidence-based proof for the assumption of equal attribute distribution in the subgroups. So, in practice it remains hard to identify the origin of score distribution differences: are they due to true differences in the groups or to assessment tools that are biased?

As was mentioned earlier, there may be political reasons to depart from the objective of equal treatment (although paradoxically, these reasons will claim to originate from equal opportunity concerns). These reasons lead to the goal of enlisting minimal numbers of minority group members or women. This can be achieved in a number of ways.

A first approach is to work with quotas: a certain number of vacancies are reserved for members of a particular group. In Belgium for instance, separate vacancies are available for Francophones and Flemings, the two major population groups. This is done in order to obtain an ethnical composition of the Forces that is similar to that of the overall population. By doing so, the applicants from the two groups are not in competition with one another. This approach has the advantage to be very straightforward.

A different approach consists of giving some advantages to members of minority groups. These advantages will increase their probability of being hired. This can be done at the attribute assessment level for instance by using different sets of standards such as different physical fitness norms for men and women. For a same level of fitness, women will get higher scores. The advantage also can be granted during classification. An example of this is the minority fill-rate feedback mechanism that was used in the U.S. Navy (Kroeker and Rafacz, 1983). The difference between the actual and desired minority proportions at any given time was used to indicate the status of the uniform fill-rate objective and was employed as the driving mechanism of a feedback function. The function compensates for existing conditions either by awarding additional utility points when the actual minority proportion is less than desired, or by subtracting utility points in the opposite case.

In addition to the means we described in this section on fairness, there is a vast scope of possible actions to influence the propensity to apply within specific gender, ethnic or age groups. These encompass targeted

advertising and recruiting, the provision of special facilities such as day-care centers on the bases or special programs to help minority members to acquire the skills necessary to get enlisted.

### **3B.8.3 Process Management**

#### **3B.8.3.1 Centralization versus Decentralization**

The easiest and soundest solution for selection is the centralized one: all applicants are processed in the same facility. Yet there are reasons why one could consider the decentralized alternative. Among these, the obvious one is that it can be difficult and expensive to bring the applicants to a centralized selection center. Reasons not to decentralize include cost and manning related aspects and methodological concerns. Methodologically, standardization is at stake. How could it be possible to guarantee that the applicants are treated in the same way in different locations? Some aspects are relatively easy to solve. Computer testing for instance can be quite similar in one place or another. It would be harder however to standardize medical assessment, interviews or group observation tasks. In general, the difficulty in standardizing the selection tools is directly related to the proportion of interpretation and subjectivity involved in the tool. Although the instructions will be identical for the different locations, it is likely that the assessment practice will evolve independently in the different settings. It is therefore important both to monitor the score distributions from the different locations and also to implement systems to reduce the possible lack of standardization. These can include:

- Centralized training of the assessors;
- Supervising personnel traveling from one location to the other to insure the consistent use of the selection tools in the different locations; and
- Frequent rotation or exchanges among the assessors of the locations.

In making up his/her mind and decide about the centralization issue, the selection system manager should balance different things:

- The additional costs due to the organization of decentralized selection (infrastructure, additional personnel, functioning costs);
- The inevitable loss of standardization and the costs involved with trying to minimize the loss;
- The benefits for the applicants and related to that, the effect on their application behavior; and
- The savings from reduced reimbursement of travel or lodging costs.

#### **3B.8.3.2 The Internet and Distributed Assessment**

Emerging technologies offer the possibility to test applicants over the Internet. There are however a number of issues that make this technology unsuitable for assessment purposes at the time we write this chapter. These issues pertain to applicant identification and test standardization.

One of the obvious conditions for an effective S&C system is that the applicant is assessed and not some impostor. In a selection facility, it is rather easy to check the identity of the test takers. Over the Internet, it is not. There exist devices allowing reading the fingerprint of a person or a chip-card certifying the person's identity. However, these devices are not widespread and fraud is quite easy when the applicant is present and has some gifted friend prepared to help him.

A second problem relates to standardization. The problem has two causes: one is technology and the other is linked to the circumstances in which a test on the Internet would be taken. On the technology side, one must

be aware of the wide variety of platforms on which Internet tests would be taken. Differences in used browsers, operating systems and background programs, screen resolutions, Internet connections, firewalls, local network traffic, and chipsets may induce an unacceptable variance in the way a test is displayed and processed locally. On the other side, Internet testing provides virtually no control of the circumstances in which the test is taken: in a quiet student's bedroom versus a crowded and noisy Internet-café...

There is little doubt that these issues will be addressed and that Internet testing might become acceptable in a not too distant future. In the meantime, some solutions can overcome the sketched problems. For instance, when supervision is given and all applicants can be tested on identical computers, Internet testing is feasible – but then the question to address is, why use the Internet and not an alternative technology allowing more control.

### **3B.8.3.3 Burden and Compensation**

The S&C process for the Military involves some investments both from the applicants and the organization. The applicants need to commit time and effort to pass the tests and sometimes even more time to prepare themselves for physical fitness tests or academic exams. In many countries, they also have to pay for their transportation to the selection facility. Often the costs are high for the selection process can involve several selection days and locations. On the organization side, investments essentially include personnel and infrastructure.

While it may be clear that the applicants consent to these efforts in an attempt to be rewarded by an enlistment and that the Military is willing to pay for S&C to get more and better recruits, it might be less obvious that there is some degree of interaction between the efforts made by both sides. Let's take an example. Applications usually don't come in a very regular pace: some days or weeks may be very successful whereas they are rather scarce during other periods (depending on many parameters). To be cost effective, the Military may decide to format the S&C facilities to the average number of applications. This would however result in – possibly long – waiting times for applicants who happen to apply during a peak period.

### **3B.8.4 Selection versus Training**

The ultimate goal of Military recruitment is to provide the Services with people fit to serve in operational duties. Given the specificity of the Military, it is hardly conceivable that a recruited civilian can immediately be assigned to such a duty. Before that kind of assignment, training will have to be undergone. This has a number of consequences for the management of recruitment. We'll discuss the interaction between recruitment and training in two aspects: the assessment of suitability for a job and the allocation to a particular job.

When we look at the assessment of the suitability of a person to be employed as an infantryman for instance, we usually can distinct two phases. First, a civilian applicant is assessed during the S&C process and enlisted as infantryman-apprentice. Second, the recruit gets a specific training he has to pass before being allocated to a job as infantryman. This situation raises the question as to what facets of suitability need to be assessed during selection versus during training. For facets that require training to be acquired, such as shooting a rifle or knowing military regulations, it is obvious that training is the place to assess these facets. For other facets, such as medical fitness for instance, it is better to do the assessment during selection for postponing the assessment to the training phase includes some risks. For a third type of facets, such as cognitive abilities, there is a possibility to choose the most appropriate moment and place to assess the considered attribute.

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In some cases the assessment of suitability for a job requires gradually more sophisticated assessment tools. An example of this is the selection of pilots. Such a selection procedure could for instance include following steps:

- General assessment of suitability as an officer;
- Screening of suitability as a pilot (medical screening, elementary psychomotor task, personality and motivation screening);
- More detailed assessment (detailed medical check, detailed cognitive evaluation, detailed personality and motivation assessment);
- Assessment using a flight simulator; and
- In-flight screening.

A similar sequence will be found in many procedures designed to assess suitability as a military pilot. Yet in some cases, all elements are part of the selection procedure (e.g., in The Netherlands) whereas in other countries, in-flight screening for instance will be included at the beginning of the training. To certain extent the choice as to where the responsibility of selection stops and where that of training starts may seem arbitrary; the choice to put an assessment tool on one side or the other bears consequences. Let's see the advantages that each side can offer:

- The pros of having the tool within selection:
  - Costs are lower for the Military since applicants are assessed and not personnel that was equipped and must be paid;
  - Consequences of rejection are less painful for the testee; and
  - Management of required numbers is easier.
- The pros of having the tool within training:
  - The selection burden is less for the applicants;
  - The numbers to be assessed are smaller; and
  - Time is less a constraint during training.

The allocation of the recruits during the S&C process can be more or less detailed. In some S&C systems, applicants are assigned to a particular job in a particular unit prior to training whereas in other S&C systems, they are only assigned to broader job-families. In such systems, the more detailed assignment is usually done after training. Again, both approaches have pros and cons:

- The pros of having detailed allocation before training:
  - The applicants have more certainty: obtaining the job they're hired for depends on whether they succeed in training only, not on how well they succeed or how the other trainees perform and what job they choose; and
  - Minimal requirements can be set per specific job rather than per broader job family. This yields more degrees of freedom to solve the classification problem.
- The pros of having detailed allocation at the end of training:
  - Training results can be taken into account; and
  - Attrition during training can be taken into account.

Some will look at a selection system from a purely cost and benefits point of view. This makes some sense. Cost and benefits issues are important. Selection and classification decisions are based upon a limited set of observations and measures. It therefore can be argued that a better assessment can be done during training. Naturally, this is provided that all applicants would be allowed to start the training. In situations where the selection ratio is close to one, this might be considered: there would be no selection, and all applicants would start the training and suitability would be assessed during training. This is the situation that occurs in Austria where compulsory military service exists and where officer candidates are assessed while performing their training as draftees. This system is worthy of comment. First, imagine what would happen if there is no medical screening and, for instance, there are medical problems during the physical training such as back injuries or cardio-vascular accidents. What would be the consequences for the applicant and for the Forces? Can the Forces be sued? If that is the case, this throws a new light to the cost-benefits topic. Second, there are social aspects that need to be considered. While it is acceptable to ask an applicant to spend a few hours to a couple of days for the selection process, it would be hard to require them to spend weeks or even months and maybe even quit another job before being sure that they are accepted.

### **3B.8.5 Influence of Downsizing and Transition from Conscription**

Downsizing implies the reduction of personnel numbers. In downsizing scenario's, it is therefore tempting to limit or even stop recruiting temporarily as alternative strategies to lower the numbers fast enough are usually expensive. Yet, limiting recruitment can have severe adverse impact, especially in organizations relying on an in-stream at the lower ranks from which the following ranks are drawn. Doing so leads to disproportionately low numbers of personnel in the lower ranks. In addition, this 'gap' will remain in the organization for the whole lifetime of the cohort. The right thing to do in downsizing scenario's, is to set the recruiting objective to the numbers that are needed based upon the new size of the Forces. That objective is expected to be smaller than it used to be. Limiting the objective further might solve the number issue in a cheap way, but it causes major problems in the long run and therefore should be proscribed.

Transition from conscription to an all-volunteer Force yields its own set of issues. Draftees usually originate from all layers of society and have a varied educational background. Personnel managers are often keen to capitalize on that variety and assign highly educated conscripts to specific jobs that are hard to fill with regular personnel. These conscripts usually don't complain since they get the opportunity to use and develop their knowledge and skills. So this situation seems to be a win-win situation and to some extent, it is. The risk stems from the fact that if personnel managers rely on the huge potential of conscripts to fill jobs that otherwise would be hard to fill through recruitment; they may face critical shortages when the decision is made to cease conscription.

### **3B.8.6 The Tri-Service Issue**

In this section, we'll use the recruitment of officers as an example. The explained principle however, is by no means limited to the officers. Most countries have different Services for which they recruit officers. In some countries, such as the United States, recruiting for the different Services is organized by the Services in a rather independent way. The candidates apply to become an officer in a particular Service. In other countries, the applicants just apply to become officers and give their preferences regarding the Services they want to join. This is what is called the 'tri-service' approach, referring to the classical three Services; Army, Navy and Air Force. Both approaches have advantages and drawbacks. The advantage of what we will call the U.S. system is that the selection system can be better tailored to the needs of the different services. On the other hand, an applicant who fails when applying for one Service will have to start from scratch if s/he wants to apply for another service. The tri-service approach on the other hand recognizes the fact that the selection

criteria for the officers for the different Services are quite similar and that, among the applicants, many want to become officers, but don't care too much in what service they will serve. By having them taking the same selection procedure, selection data is collected that can be weighted differently for the individual services and the system can capitalize on the whole applicant population to find the best overall solution for the Forces. In general, one should apply following rule: if there is a significant overlap in the applicant populations for the different Services, it might be more efficient to move to a tri-service approach.

### **3B.9 PRACTICAL RECOMMENDATIONS**

Throughout this chapter, quite a number of topics pertaining to S&C were touched. These will now somewhat be summarized to provide the reader with practical recommendations.

#### **3B.9.1 Challenge Basic Options**

All current military S&C systems inherited to some extent beliefs and practices from the past. While these seemed adequate at the time they were introduced, it is important to verify whether this still holds in the present or anticipated situation. Options that should be put under scrutiny if still current include recruiting for the lowest ranks only, recruiting for lifetime employment and not recruiting for one of the traditional personnel categories (officer, NCO and enlisted).

#### **3B.9.2 Recognize Different Visions Pertaining to S&C**

As was pointed out, politicians, military leaders, training commanders, S&C methodologists, and others usually have a quite different conception of what the recruitment objectives should be. It is therefore important to pursue a shared and explicit vision in order to foster a common approach and minimize criticism of the S&C system.

#### **3B.9.3 Use Adequate Methodology to Define Selection Standards**

Selection standards should be based on empirical evidence of relationship between predictor and criterion and supply and demand data.

#### **3B.9.4 Use Relevant Selection Criteria Only**

Sometimes selection criteria are used that only show circumstantial relevance. For instance age could be used as proxy for physical fitness or educational background as estimator of general intelligence. This should be avoided: if physical fitness is important, measure physical fitness and do not substitute this by an indirect measure such as age.

#### **3B.9.5 Work towards Utility Analysis**

The ultimate management tool for S&C is the utility analysis. Yet, utility analysis is not that common for the conditions to meet are far from trivial in practice. Utility analysis is however a goal that every S&C manager should pursue.

### **3B.9.6 Use Batch Classification**

Since more elaborated batch classification methods yield far better results than simpler ones such as first comes first served methods or single criterion classification methods, at no extra cost, these should be used.

### **3B.9.7 Accountability: Be Prepared!**

Make sure that S&C decisions can be justified to applicants and other interested parties. Thereto, document these decisions well and base them on solid theoretical and empirical grounds.

### **3B.9.8 Fairness: Use Quota or Group Membership Benefits**

Make sure your assessment tools are not biased against gender, age, or ethnicity. Try to influence propensity of minority groups to enlist using targeted advertising and dedicated programs to prepare them better and to accommodate their specific needs. While there are many means to increase the probability of enlistment of minority group members, choose S&C methods that acknowledge the benefits of belonging to a minority group clearly (such as quota or extra utility-points based on group membership). These methods are more effective and more transparent than some subtle attempts to conceal existing group differences (e.g., choosing physical fitness tests where males and females perform equally well).

### **3B.9.9 Avoid Limiting Recruiting during Downsizing**

Even during downsizing periods, do not limit the recruitment goals below the numbers required when the new Force structure is in regime. Limiting them further will cause gaps in the age and ranks structure that risk to last for a very long time.

### **3B.9.10 Tri-Service Issue**

If there is no essential reason to use separate S&C systems for the different services, work with a tri-service approach. If there are good reasons to work separately, ensure that the selection burden for an applicant not accepted for the preferred service is minimized when she applies for a different Service (e.g., by using the same tests and exchange test results between the concerned Services).

