

**Summary:**

## **Changing times for AS Oslo Sporveier? An evaluation of trials with new shift systems for drivers in the tram and metro division**

In 2000, the parties in AS Oslo Sporveier agreed to carry out trials with a new shift system for drivers in the tram and metro division. The basis for the measure was a joint concern for drivers' sick leave, early retirement and other health issues connected to traditional shift work. The negative health effects of shift work have been well documented in a number of studies in the last 50 years, while at the same time a number of possible measures to improve the situation have been proposed. The goal for the parties in AS Oslo Sporveier was to develop more health-friendly shift systems with the help of three tools: (i) working hours should become more equal and more evenly distributed across the working week, (ii) drivers should to a larger degree be awarded completely free weekends by swapping shifts in connection to the non-work sequences, and (iii) the shift period should not work counter to the human body's biological clock. The latter entails the abolishment of backwards rotated shifts.

The change in the shift system was implemented on 5 November 2001, and the Institute of Transport Economics (TØI) was asked to evaluate this one year later. The report is built around three main questions:

1. What affects job satisfaction amongst AS Oslo Sporveier's drivers?
2. What affects the level of job-related absence from work?
3. How has the new shift system affected job satisfaction and absence factors, which result from questions 1 and 2 above?

### **Main conclusion**

Let us put forward the main conclusion in the report once and for all: The majority of the drivers in AS Oslo Sporveier like their job and think the new shift system is good. The study shows that eight out of ten drivers:

- are satisfied with their job
- have a good working environment with their colleagues
- usually get the working hours they want
- have not experienced work-related absence due to illness
- while two out of three drivers prefer the new shift system to the old one, albeit with some adjustments.

However, this also means that one out of five drivers do not agree with the first four statements shown above. This is highly connected to the drivers' lack of

influence on their own work situation, either through individual inclusive leaders, through the organisational structure of worker participation, or by usually getting the working hours they want. All these are conditions which are shown to have direct, negative effects on personal job satisfaction and the probability of job-related absence from work.

The survey also shows that three out of ten that have been directly affected by the new shift system would like to revert to the old one. This particularly applies to those groups who are least satisfied with their own overall opportunities to influence their work situation, as the underground drivers at Majorstuen and drivers with young children. Both groups feel in various ways that the shift changes have led to a reduced freedom of choice and to them being less able to organise their own working hours.

However, it is worth noting that the critical voices for the most part are directed towards the process of implementing the measure, rather than the main principles governing its design. For AS Oslo Sporveier, this suggests that small adjustments within the framework of the new shift system are more adequate than designing a completely new model, or going back to the old one, once again.

## **What leads to job satisfaction – and work related absence?**

The study shows a picture of AS Oslo Sporveier as a company with a good social working environment. Most drivers are satisfied with their work and have no plans of quitting in the nearest future. There are three specific factors that determine how satisfied the drivers are with their job: to which degree they feel unsafe at work, whether they feel they have good opportunities for personal development within their job, and to what extent they feel they can influence their own working day.

Most of these factors also show a clear connection to the level of work related absence: Those drivers who feel they have influence on their everyday working life and feel in control during the course of the working day, are less often on sick leave due to work related conditions than others. In other words, the stress and demands experienced by drivers in carrying out their work seldom lead to job-related sick leave by themselves. The decisive factor is the extent to which they can control these demands themselves and decide how and when the tasks are to be carried out. In AS Oslo Sporveier there are three forms of influence which appear to be decisive for the level of absence: (i) The drivers' feeling of inclusivity in reorganisation procedures, (ii) their experience that individual inquiries and points of view are taken into account by their immediate superiors and (iii) the drivers freedom to influence their own working hours.

These results are supported by earlier research showing that both the employees' health and what can be required of them, depends on a work-place organisation which promotes self-determination and control. Much of the job-related sick leave in AS Oslo Sporveier can thus be explained by defective channels of communication and participation between drivers and the leadership at work. Only 15 per cent of the drivers feel that they have any influence on the reorganisation of the company – while six out of ten do not feel that their views are taken into account by their immediate superiors. There are, of course, regular

meetings at work, but these seem to provide few opportunities to discuss the content and challenges of the work in itself, and are seldom taken up further up the company's decision-making hierarchy. This particularly applies to drivers with family responsibilities outside work, high seniority and those stationed at Majorstuen.

## **Experiences with the new shift system**

The employees' experiences with the new system are, for the most part, positive. Seven out of ten drivers prefer the new system to the old one, or at least the new system with some minor adjustments. Long-term health considerations make up the one single factor which is of greatest significance for how satisfied the individual is with the new shift system. The majority of drivers thus agree with the main intention behind the measure: to reduce the negative health-related effects associated with the old column system

Nevertheless, three out of ten drivers stated that they would prefer to go back to the old shift system. The underground train drivers based at Majorstuen, those with the lowest level of seniority and couples with children still living at home are least satisfied with the new system. Drivers assigned to Majorstuen and couples with small children were also amongst the groups that reported the lowest levels of job satisfaction and the highest levels of work related absence prior to the measure. These groups feel that, for various reasons, the new shift system has led to less freedom of choice and reduced opportunities to organise their own working hours.

The result is particularly depressing with regard to the concrete target for increased flexibility for families. This is also pin-pointed as one of the major downsides of the new shift system by the drivers themselves. The leadership in AS Oslo Sporveier is thus faced with clear challenges when it comes to developing an organisational apparatus that makes the everyday working life for drivers with small children a bit easier. This indicates that the seniority principle in the allocation phase must be waived to a greater extent than at present, as the principle often conflicts with the target of increased influence for drivers with small children.

When it comes to the lower levels of satisfaction amongst the drivers assigned to Majorstuen, there is much to indicate that the shift plan was introduced using more rigid work schedules here than in other places in AS Oslo Sporveier. Hence, even the Majorstuen-drivers seem to be more critical towards the process of implementing the measure, than they are against the main principals governing its design.

## **The road ahead**

The study shows that the drivers in AS Oslo Sporveier are on the whole satisfied with their job. The new shift system contributes to this picture with obvious physical health benefits in the long term compared with the old column system. However, AS Oslo Sporveier still has much to learn about the organisational buffer development against the workload that several drivers actually suffer from. The drivers often experience high and partly conflicting demands during the

course of the day, while at the same time having limited freedom to influence their own working day and hours.

In this area, many of the drivers even feel that the new shift system has moved in the wrong direction, which in itself are shown to affect the probability of work related absence in a negative manner. The overall sick leave in AS Oslo Sporveier is thus affected by two rather opposite mechanisms: While the obvious physical health benefits of the measure will decrease the drivers' work related absence on a long term basis, the use of a more rigid shift plan may increase the absence amongst certain groups of drivers on a short term basis. Consequently, the overall effect in AS Oslo Sporveier seems uncertain.

The leadership in AS Oslo Sporveier is nevertheless faced with clear challenges when it comes to developing an organisational apparatus where engagement, involvement and the experience of being seen and heard are more obvious than they are today. With small adjustments, the new shift system may contribute in such a way by combining the clock-wise system of today with increased freedom of choice for the individual driver. Hence, parallel with specific measures towards individual groups which are identified as being most negative towards the new shift system, further work should be done to increase all drivers' opportunities to influence their own work situation and their own working hours.

More concretely, this requires that the following measures be evaluated:

- **Drivers with small children should be given greater opportunities to have more time off between shift periods.** For example, this group could be exempt from shifts with evening watches before a free weekend. This means that the seniority principle in the allocation phase must be waived to a greater extent than at present.
- **Regular "wish-list" meetings should be introduced for all drivers.** This means that meetings should be held regularly where each individual driver is given the chance to swap shifts to suit his or her private commitments. Regular formalised meetings of this type will result in a better use of the individual's working hours than when each individual driver tries to swap the shifts which suit him or her least.
- **The current work place meetings should be made compulsory, and paid, for all drivers.** This also requires the leadership to agree to take ideas and proposals further up the company's decision hierarchy. The target must be for the stream of information to be seen to run in both directions to a greater extent than at present.
- **Measures directed at the drivers must go hand in hand with measures directed at leaders and leadership development.** To develop an organisation that works in an inclusive manner is, at the end of the day, the responsibility of the leadership. This means greater emphasis on developing leaders' ability to include and involve employees at different levels in the company and thus prevent and identify risk factors at the earliest possible stage. The goal must be to make the decision-making and co-operation apparatus less dependent on individual leaders' interests and abilities, and thus make the drivers' influence less dependent on where in the organisation they work.