

# Survey on the current working environment of the highway tollgate cashiers

## Objectives

Toll booth workers in Korea have suffered from several conditions and factors such as job insecurity, poor work environment, job stress, and sexual harassment and violence from customers. Purpose of this study is working condition survey by representative sampling of toll booth workers including at least 10 private agencies.

## Methods

Working condition survey by questionnaire was conducted on 35 companies including 23 Korea Expressway Corporation (KEC) and 12 private agencies. Risk assessment of musculo-skeletal burden tasks was conducted on 5 agencies. In-depth interview was conducted on 5 workers of 4 agencies.

## Results

Total 792 questionnaires comprising 635 from KEC and 157 from private agencies were gathered. Among 792 questionnaires, 294, 55, 125, and 318 questionnaires were gathered from Kyeonggi, Chungchung, Chunla, and Gyeongsang respectively. Highest job stress level was found at tollbooth of SN\_2. Emotional labor score was highest at tollbooth of SN\_2. Highest score of violence was at tollbooth of G\_6. Burn out score was highest at tollbooth of S\_3 and SN\_2.

Musculo-skeletal burden were high in almost all tasks including greetings, ticketing and cashing, which requires immediate action for improve. Stretching techniques for each burden were developed.

As results of in-depth interviews, poor working conditions to be revised were found as follows. Shortages of rest and meal break need to be improved by keeping proper numbers of workers. were found. Clear definition of job scope is needed. Sexual harassment and violence from customers need systemic customer

complaint department instead of individual worker's responsibility. Guidelines or recommendations for management for toll booth are required. Also continuous education program for managers are necessary.

#### Conclusions

Working conditions of toll booth workers in Korea are poor in terms of job security, musculo-skeletal burden, and violence from customers. Proper numbers of worker, improvement of ergonomic working conditions, clear guidelines of job procedure, and continuous education of managers for worker's health are needed.

#### Key words

Tollgate, booth, highway, working environment, health, questionnaire