

# The Netherlands Working Conditions Survey



The Netherlands Working Conditions Survey (Nationale Enquête Arbeidsomstandigheden, NEA) is a large scale periodical investigation into the working conditions of Dutch employees. Issues addressed in the questionnaire vary from psychosocial workload and workplace bullying to occupational accidents working hours, development & pay.

The NEA was developed due to the absence of a monitoring instrument focusing on working conditions in the Netherlands. TNO conducted the NEA for the first time in 2003, by means of a grant from the Dutch ministry of Social Affairs. In this first wave, about 10,000 employees participated. At the end of 2005, the NEA was conducted for the second time among more than 23,000 employees. In 2006 over 24,000 workers participated. From 2005 onwards, the sampling method has been carried out by Statistics Netherlands (CBS). This ensures a link between the NEA and other registrations and statistics in the Netherlands' Social Statistics Database. The NEA will be conducted annually from 2007 and onwards.

This brochure provides readers with 10 highlights from the NEA 2003, 2005 and 2006 (section 2). It also includes technical information (section 1), an overview of the sample composition (section 3) and references to a selection of publications on the NEA (section 4).

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# 1 Technical Information

## 1.1 Sample, Response and Data-collection

The NEA is conducted among employees aged between 15 and 64 years. In 2003, the sample was drawn from the databases of a large Dutch market research organisation (see Table 1.1 for an overview of gross and net sample sizes and response rate per year). In both 2005 and 2006, Statistics Netherlands provided the sample by taking a random 80,000 employees from its so-called “jobs database”. This database contains information on all jobs which fall under employee national insurance schemes and are liable to income tax. It also holds information about employees’ age, gender, ethnicity and other demographic information. One major advantage of drawing the sample from this database is that it allows the NEA to be related to data from other statistics from the Social Statistics Database, such as data on absenteeism.

In 2005 and 2006, response rates were lower than in 2003. However, this was expected due to the change in the sampling method (the switch from a market research organisation providing the sample to Statistics Netherlands providing the sample) and due to the decrease in the reward for participation.

In all years, data was collected by means of Paper and Pencil Interviewing (PAPI) and Computer Assisted Web Interviewing (CAPI). Participants were free to choose whether they completed the paper and pencil questionnaire (which was sent to them by post), or accessed the questionnaire on the internet by means of a personal code.

**TABLE 1.1**  
Gross and net sample sizes and response rates  
of the NEA per year

	2003	2005	2006
Gross sample	23,900	80,000	80,000
Net sample	10,075	23,408	24,103
Response %	42.0%	32.5%	33.5%

Since 2005, pilot studies have been conducted before the start of the actual study. In these studies, participants are requested to evaluate the NEA-questionnaire on aspects such as length and clarity of the questions. The average time needed to complete the questionnaire is about 20 minutes and it received an average report mark (scale 1 to 10) of an ample 7. Most participants encountered no problems during the completion of the questionnaire.

A number of measures have been taken to increase the response rate of the NEA:

1. Privacy of participants is guaranteed
2. Much attention has been devoted to the length, contents and layout of the questionnaire
3. A mixed-method approach (PAPI and CAPI) is used
4. An additional webpage was designed with, among other things, answers to frequently asked questions
5. Written and telephone reminders are used
6. Participants have a 1 in 10 chance of winning a gift voucher
7. Data collection starts in October, the month in which response rates are generally highest according to Statistics Netherlands
8. After data collection has taken place, participants are informed of the research results by means of a specific website and press releases

## 1.2 Non-response and Weighing procedure

To obtain insight into the extent to which the NEA response matches the sample frame, an extensive comparison with the sampling frame (6,900,830 persons from 15 to 64 years of age, who carry out paid work in employment thus self-employed excluded) was conducted in 2005 and 2006. These analyses showed that the NEA corresponds reasonably well with the sampling frame with regard to gender, age and origin. As far as employment sector, urbanization and region are concerned, the NEA corresponds very well with the sampling frame.

As response percentages differed between various population groups (e.g. by gender or age), these differences had to be taken account of by means of weighing. To do this, the data was (post-)stratified by (combinations of) gender, age group, education level, sector, ethnicity (from 2005 onwards), urbanisation level and region (from 2005 onwards). An iterative procedure was followed to obtain the weight coefficients. In all cases, weight coefficients and standard deviations fall within acceptable limits.

## 1.3 Issues addressed

The NEA reflects various aspects of the working situation of employees, such as their profession, employment sector, working hours and a variety of employment risks. Besides this, the NEA monitors which measures employers are taking to improve the safety and health of their employees, which measures are desired by employees and what the situation is on the (work-related) health and wellbeing of employees. This is largely done using existing, previously tested modules and questions. The reliability of these modules is high.

Topics from the NEA 2003, 2005 and 2006 are presented in table 1.2.

TABLE 1.2

Topics from the NEA 2003, 2005 and 2006

1.	Demography: sex, year of birth /age, educational level, household composition, hours working in household
2.	Terms of employment: type of employment, working hours, number of days working, overtime (yes-no), hours overtime, hours home work, shift work* evening work & night work*, weekend work*, organization size
3.	Professional group
4.	Business sector
5.	Psychosocial work conditions: work pressure/speed, job control/ job autonomy, emotional demands
6.	Physical work conditions: using strength – lifting, body vibrations, body posture, repetitive movements
7.	Noise
8.	Visual display work
9.	Dangerous work / dirty work
10.	Workplace violence
11.	Work accidents
12.	Dangerous substances
13.	Measures taken with respect to dangerous substances, measures taken with respect to work pressure & RSI, measures still needed
14.	Safety culture
15.	Health: general health, need for recovery, RSI complaints & effects, chronic diseases (handicap, measures)
16.	Working until 65 years/ early retirement
17.	Absence management of employer
18.	Absence days/periods last 12 months
19.	Last absence period: complaints/reasons
20.	Long-term absence, measures taken
21.	Contact with Occupational health service
22.	Work disability
23.	Pregnancy & work
24.	Development & pay **
25.	Work-family conflict **
26.	Working conditions satisfaction

\* as of 2005

\*\* only 2005

## 1.4 Publication of the NEA-results

The results of the NEA are published through various channels. The main results are reported in basic reports, available at [www.tno.nl/nea](http://www.tno.nl/nea). They are also published on Statline, the internet database of Statistics Netherlands (CBS). TNO and Statistics Netherlands, as well as several third parties are using the data for (applied) scientific research, surveillance, and benchmarking purposes, and other secondary analyses. The data are also used for the evaluation of government policy performance. All press-releases and publications are available at [www.tno.nl/nea](http://www.tno.nl/nea).

## 1.5 NEA 2007-2010

As of 2007 the focus of the NEA has shifted from ‘quality of working conditions’ to ‘quality of work’, in practice meaning that topics such as “terms of employment”, “labour relations”, “innovative behaviour” and “productivity” will be incorporated into the questionnaire. In 2008, a longitudinal cohort study will start.

## 1.6 Matching the NEA to other data files

It is possible to link NEA data on an individual level to data in the Social Statistics Database of Statistics Netherlands such as, for example, information on absence and work disability benefits. The Social Statistics Database contains registered data for all people belonging to the relevant population (e.g. employees), as opposed to the NEA, which is a self-report questionnaire conducted among a sample of Dutch employees.

## 1.7 Conditions for use

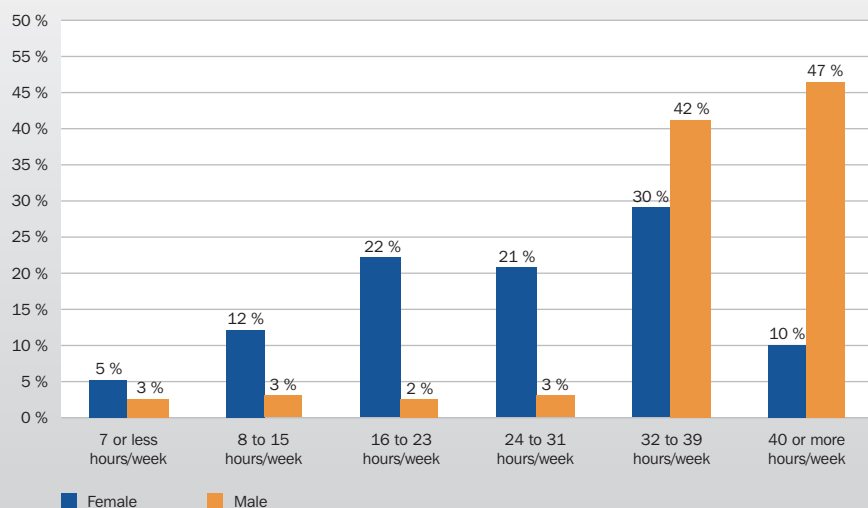
The NEA databases are available to universities and research institutes for research purposes via Centre of Policy related Statistics (Statistics Netherlands). However, the use of these databases is subject to conditions. More information about the use and conditions for use can be obtained from TNO, phone: +31 23 554 93 93, email: [info-arbeid@tno.nl](mailto:info-arbeid@tno.nl). See also [www.tno.nl/nea](http://www.tno.nl/nea).

## 2 Highlights of results 2003-2006

### 2.1 Working hours and non-standard working hours

- 40% of female employees work 32 hours or more a week, whereas for male workers this percentage is 89%
- The average percentage of employees working overtime slightly decreased during the past years, whereas the average number of overtime hours increased
- Employees in the sector transport and communication work the most overtime hours (8 hours/week)
- Working during non-standard hours is related to less favourable physical and psychosocial working conditions

**FIGURE 2.1 Contractual working hours per week**

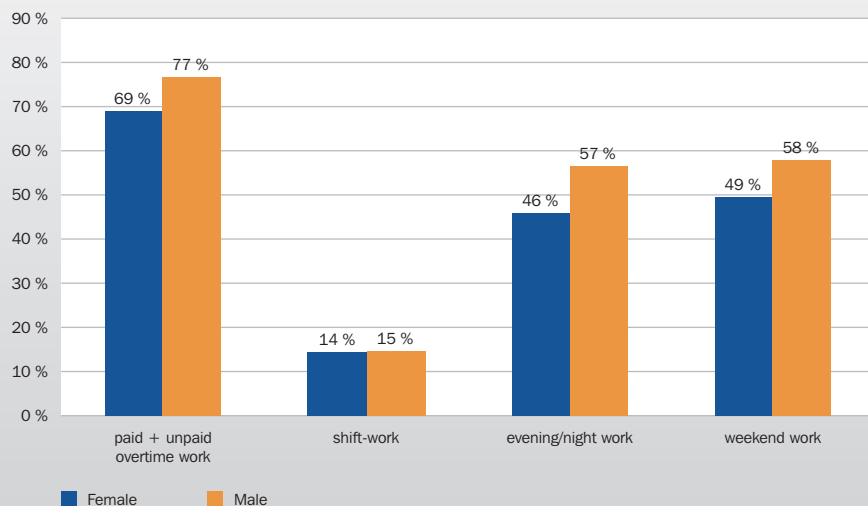


Source: NEA 2003, 2005, 2006

Figure 2.1 depicts the distribution of participants according to their contractual working hours per week. The figure shows that, generally, men work more hours a week than women. Almost half of the male employees work 40 or more contractual working hours per week, whereas for women this percentage is almost 5 times lower. Working weeks of 23 hours or less per week are reported by 39% of female employees. Among men, only 8% report working this number of hours.

The NEA not only incorporates information about the number of hours worked per week, but also about the extent to which employees work during non-standard hours. These are defined as working hours outside the standard '9 to 5' pattern and/or outside contractual working hours. In the NEA, evening/night work, weekend work, shift work and overtime work are incorporated as indicators of non-standard hours. The percentage of employees working during these non-standard hours is depicted in figure 2.2. This figure shows that overtime work (paid plus unpaid hours) in particular is very common in the Netherlands. Although the percentage of employees working overtime decreased slightly during the past years (from 75% in

**FIGURE 2.2 Percentage of employees working at least incidentally during non-standard working hours**



Source: overtime work: NEA 2003, 2005, 2006; other indicators: NEA 2005, 2006

2003 to 73% in 2006), the average number of overtime hours increased during this period from 3.90 hours in 2003 to 5.40 hours in 2006.

The prevalence of non-standard working hours clearly differs between sectors and occupational groups: shift-work, evening/night work and weekend work are most often reported by employees in the sectors hotels and restaurants (25%, 76% and 84% respectively) and transport and communication (25%, 63% and 67% respectively). Employees in the latter sector also work the highest number of overtime hours (on average 8.01 per week). Evening/night work is more common among men (57%) than among women (46%) and men also work

more overtime hours than women (6.33 vs. 3.36). Shift-work (23%), evening/night work (61%) and weekend work (72%) are more frequent among younger employees than among workers in other age groups (all age groups: 15%, 52% and 54% respectively).

Table 2.1 shows that employees working during non-standard working hours – and especially those who work shifts – generally report less favourable physical and psychosocial working conditions than employees who work during standard hours. These differences persist even after the potentially confounding influence of gender, age, educational level and occupation is taken into account.

TABLE 2.1.  
% of employees reporting certain physical and psychosocial working conditions  
for different types of working hours

	Standard working hours	Overtime work	Shift work	Evening-night-work	Weekend work
Physical load (% yes)	14%	18%	35%	21%	21%
Noise (% yes)	12%	10%	19%	11%	11%
Dangerous work (% yes)	20%	26%	48%	31%	31%
Dirty work (% yes)	32%	34%	56%	39%	40%
Work pressure (% yes)	19%	37%	35%	38%	37%
Lack of autonomy (% yes)	21%	21%	41%	25%	26%
Emotionally demanding work (% yes)	4%	9%	16%	11%	11%
Harassment by supervisor/colleagues (% yes)	17%	21%	25%	23%	22%
Harassment by customers	16%	29%	46%	35%	34%

(source: NEA 2005, 2006)

## 2.2 Work pressure, job control and need for recovery

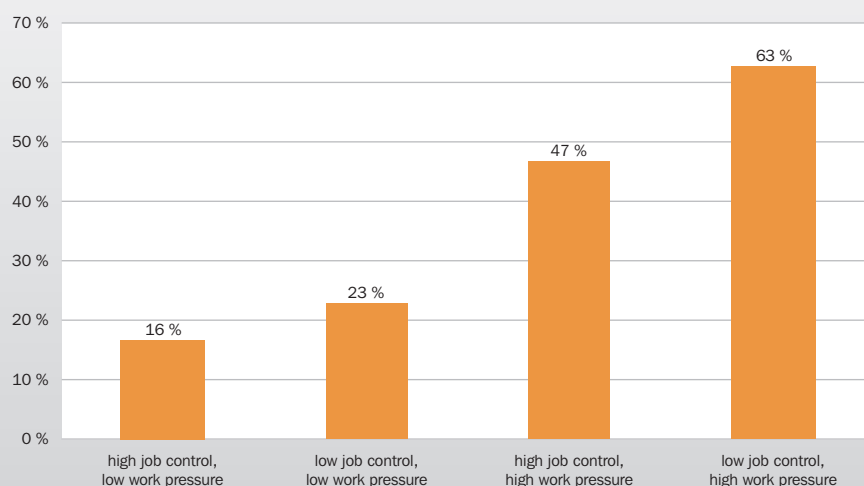
- The percentage of employees reporting work pressure increased slightly from 31% in 2003 to 34% in 2006
- High work pressure among employees in the sector education (40%)
- Relatively high level of job control in the Netherlands

In the past years, the number of employees reporting work pressure has increased slightly in the Netherlands, from 31% in 2003 to 34% in 2006. Work pressure is generally higher among male employees than among female employees (2006: 35% vs 32%). The percentage of employees reporting high work pressure also varies between sectors: in agriculture, 15% of employees report high work pressure in 2006, whereas in education no less than 40% of employees experience high work pressure.

Besides work pressure, job control is an important aspect of employees' psychosocial work environment. The level of job control in the Netherlands is relatively high (i.e. 2.46 on a 3-point scale ranging from 1 = little to 3 = much). Also job control varies between sectors. Workers in financial services and in the public sector, in particular, report relatively high levels of job control. Although workers in the agricultural sector experience relatively low work pressure, they also report relatively low levels of job control.

It is hypothesized that the combination of work pressure and job control is important in the prediction of burnout and other work-related health problems: in particular a combination of high work pressure and low job control could be related to adverse health outcomes. Figure 2.3 supports this idea. It depicts the percentage of employees reporting a high need for recovery (indicating the onset of burnout) for four groups of employees with different combinations of work

**FIGURE 2.3** Percentage of employees reporting a high need for recovery



Source: NEA 2006

pressure and job control. Of the workers who experience low job control and high work pressure, no less than 63% report a high need for recovery. In the three other groups of workers, this percentage is substantially lower.

## 2.3 Physical working conditions

- Repetitive movements are reported by more than half of Dutch employees
- Generally, a quarter of Dutch employees report RSI-complaints. However, almost half of the employees working in an uncomfortable position for the upper body part, head and/or neck report these complaints
- 7% of Dutch employees have been absent from work during the past three months in case of RSI-complaints

The NEA covers various aspects of employees' physical work environment. More than half of Dutch workers indicate that they carry out repetitive movements. Other aspects of the physical working situation are reported less often (see table 2.2).

The NEA also addresses whether employees have experienced complaints from their arm(s), neck, shoulder(s), wrist(s), and/or fingers (further referred to as RSI-complaints) in the three months preceding the completion of the questionnaire. This applies to about a quarter of Dutch employees (see figure 2.4). Participants were further requested to indicate if they have been absent from work in case of RSI-complaints during the past three months. This turned out to be the case for 7% of the workers.

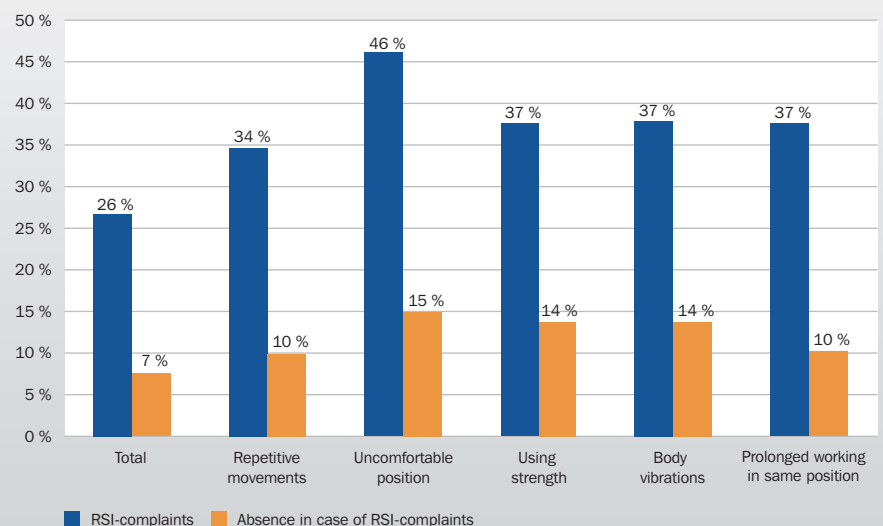
Compared to the national average, RSI-complaints are reported often by employees who particularly work in an uncomfortable position for their upper body, head or neck. Absence in case of RSI-complaints is relatively common among this group of workers as well (see figure 2.4).

TABLE 2.2  
Percentage of employees reporting various physical working conditions

Physical working conditions	% employees exposed
Repetitive movements with arm(s), hand(s), wrist(s) and/or finger(s)	54%
Uncomfortable position upper body, head, neck	24%
Using strength	24%
Body vibrations	12%
Prolonged working in same position	40%

(source: NEA 2006)

FIGURE 2.4 Percentage of employees reporting RSI-complaints and absence in case of RSI-complaints



Source: NEA 2006



## 2.4 Visual display work

About 20% of Dutch employees perform more than 6 hours of visual display work a day. Men and women do not differ regarding the extent to which they work more than 6 hours a day with a visual display for their work.

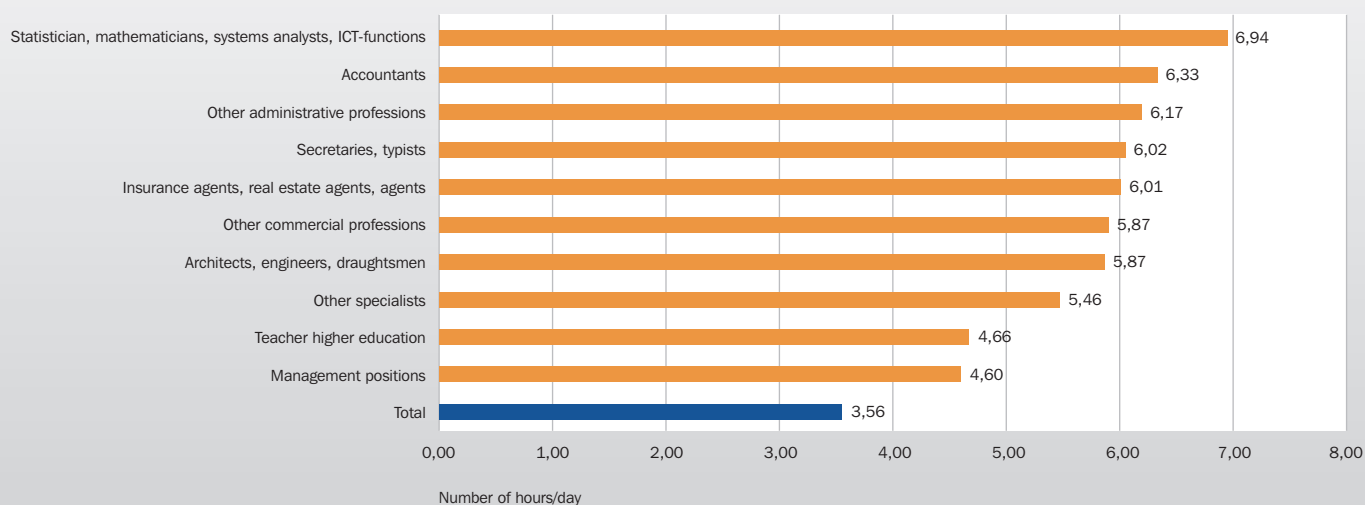
With regard to employment sectors, visual display work is most common in the computer services (on average 6.69 hours per day), in insurance companies and pension funds (6.31 hours per day) and in financial institutions (6.16 hours per day).

Figure 2.5 shows the top 10 occupational groups by the average number of visual display work a day. The figure shows that in particular statisticians, mathematicians, systems analysts and workers in ICT-functions perform a lot of visual display work.

On average, Dutch employees use a visual display for personal use for 5.95 hours a week. This is reported more often by men (6.81 hours per week) than by women

(4.89 hours per week). Interestingly, statisticians, mathematicians, systems analysts and employees in ICT-functions, who reported the highest number of work-related visual display work, report the second highest number of visual display work for personal use (8.80 hours per week). Cooks and waiters take the first position in this respect (on average 8.85 hours per week).

**FIGURE 2.5 Top 10 occupational groups by visual display work**



Source: NEA 2003, 2005, 2006



## 2.5 Workplace violence

- 24% of Dutch employees report having experienced intimidation by customers and 14% report intimidation by colleagues/supervisors
- Intimidation by customers is more frequent among female workers and intimidation by colleagues/supervisors is more common among male employees
- Intimidation by customers is reported most often in the sector health and social work (39%) and intimidation by colleagues/supervisors is most frequent in the sector manufacturing (19%)

With respect to workplace violence, the NEA addresses intimidation, sexual harassment, physical violence and bullying. For each type of behaviour, the questionnaire further distinguishes between behaviour displayed by supervisors/colleagues and behaviour displayed by customers (patients, students, passengers). Employees are requested to indicate whether they have been personally subjected to each of these types of workplace violence.

Workplace violence by supervisors/colleagues is reported by 28% of Dutch workers and workplace violence by customers is

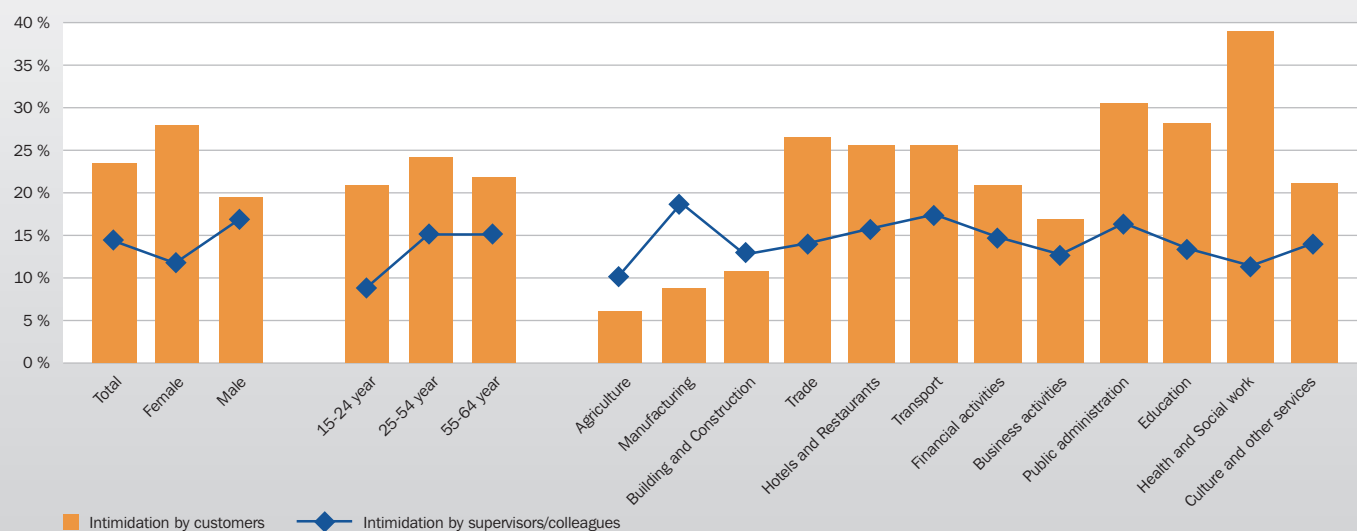
reported by 20%. Table 2.3 shows that intimidation is the most common type of workplace violence.

TABLE 2.3  
Percentage employees experiencing various types of workplace violence

	by customers (% yes)	by supervisors/colleagues (% yes)
Unwanted sexual attention	7.2%	3.1%
Intimidation	23.5%	14.2%
Physical violence	6.3%	0.8%
Bullying	8.1%	10.5%

Source: NEA 2006

FIGURE 2.6 Intimidation by customers and by supervisors/colleagues



Source: NEA 2006

Generally, intimidation by supervisors/colleagues is less frequently encountered than intimidation by customers (see figure 2.6). The first type of intimidation is more widespread among male employees, whereas the second type is reported more often by female workers.

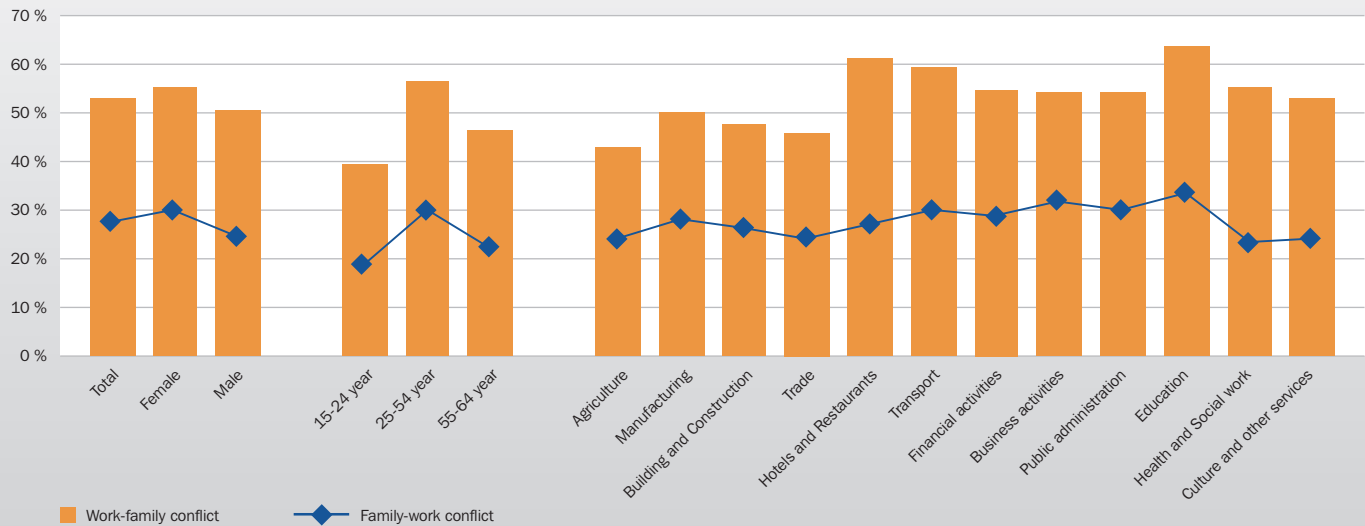
Figure 2.6 further demonstrates that, contrary to the general picture, in the sectors agriculture, manufacturing and building and

construction intimidation by supervisors/colleagues is experienced more frequently than intimidation by customers. However, in these sectors, the reported exposure to intimidation by customers is below average, which can be explained by the fact that customer contact is rare in these sectors. Intimidation by customers is reported most often in the health sector and intimidation by supervisors/colleagues is most frequent in the manufacturing sector.

## 2.6 Work-family conflict and family-work conflict

- Work-family conflict (reported by about 50% of employees) is more prevalent than family-work conflict (reported by about 30% of employees)
- Both types of conflict are most prevalent in the age group 25 to 54 years
- Working during non-standard hours is related to a higher prevalence of both types of conflict

FIGURE 2.7 Work-family conflict and family-work conflict



Source: NEA 2005

Finding and maintaining a healthy balance between work and family life is a challenge for many employees nowadays. In 2005, the NEA paid attention to this issue as well, by asking participants to indicate the extent to which they miss or neglect family activities due to their work (work-family conflict) and the extent to which they miss or neglect their work due to family responsibilities (family-work conflict).

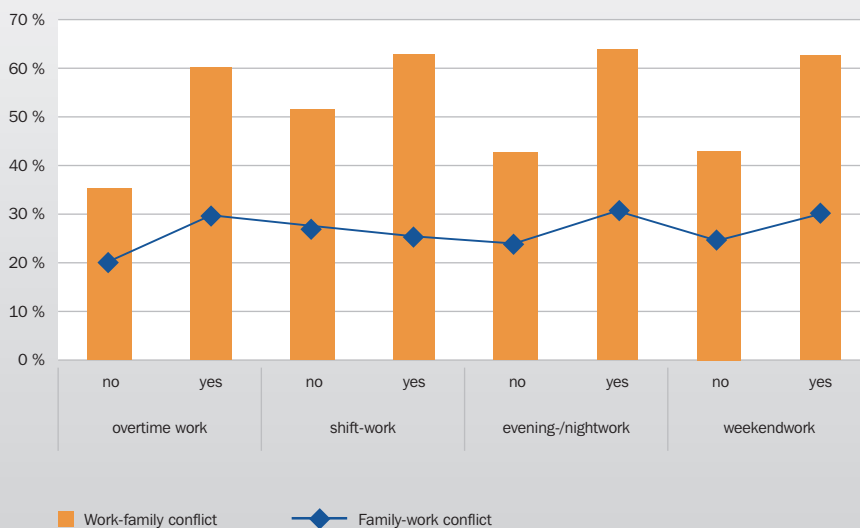
Work-family conflict is reported more often than family-work conflict (see figure 2.7). Figure 2.7 also shows that both types of conflict are more common among men and employees aged between 25 and 54 years than among women and employees in other age groups. Differences between age groups can be explained by the fact that childrearing is often a major responsibility for employees in this age group: it seems rational that having (small) children in the household increases the possibility that work interferes with family life and vice versa.

The number of employees reporting work-family conflict and family-work conflict also varies between sectors. In the sectors agri-

culture and trade, both types of conflict are reported relatively infrequently. However, employees in the education sector indicate that they experience both forms of conflict relatively often.

Employees who work during non-standard hours (i.e. working hours outside the standard '9 to 5' pattern and/or outside contractual working hours) report work-family conflict more often than employees who work during standard hours (see figure 2.8). On a smaller scale, these differences are also visible for family-work conflict, although in this case no difference is observed between workers who work shifts and those who don't.

**FIGURE 2.8 Work-family conflict and family-work conflict**



Source: NEA 2005

## 2.7 Sickness absence

- Flu and colds are mentioned most often as causes for sickness absence
- Generally, women and older employees report higher absence rates than men and younger workers
- Working conditions explain 3% of variance in absence rate

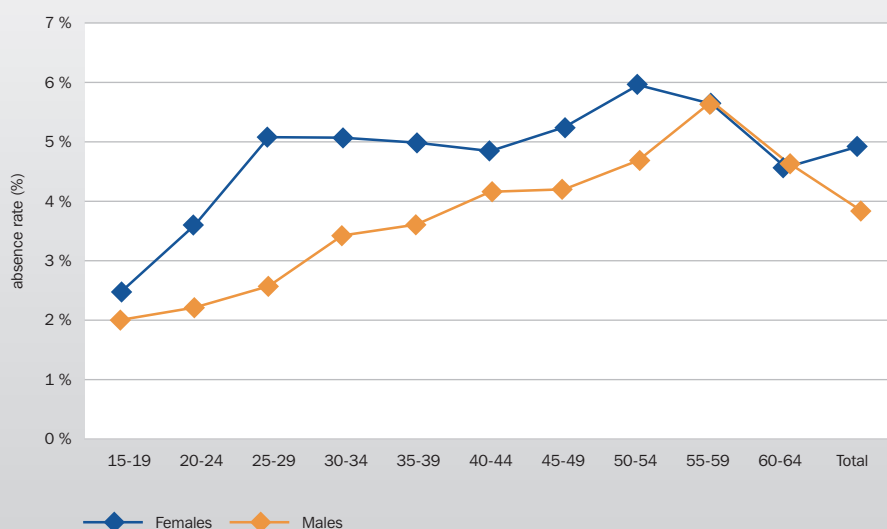
Various aspects of sickness absence are addressed in the NEA. On average, the frequency of absence is 1.34 among Dutch employees and they are absent on average 7.89 days during a year (including employees who report no sickness absence).

The average absence rate among Dutch employees is 4.3%. Figure 2.9 shows that the absence rate varies according to age and gender. Generally, older employees and women report a higher absence rate than younger employees and men. The decrease in absence rate in the older age groups may be due to a 'healthy worker effect', i.e. unhealthy employees have already left the labour market by that age.

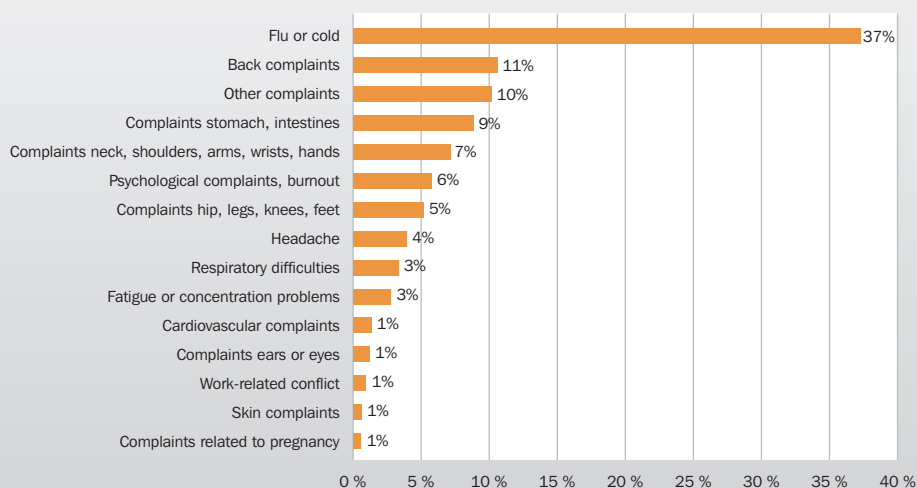
Figure 2.10 depicts the complaints workers report as causes for their last case of absenteeism. Flu or colds are mentioned most often as causes of sickness absence. Also stomach/intestinal complaints and back complaints are reported relatively often.

Working conditions are often hypothesized to be (partially) responsible for complaints leading to sickness absence. In a recent study based on the NEA 2005, Smulders (2007) found that only 3% of the variance in absence rate could be explained by physical and psychosocial working conditions and that employees' health status explained 5% of this variance.

**FIGURE 2.9 Absence rates (corrected for part-time employment) for males and females by age**



**FIGURE 2.10 Health complaints in case of absence**



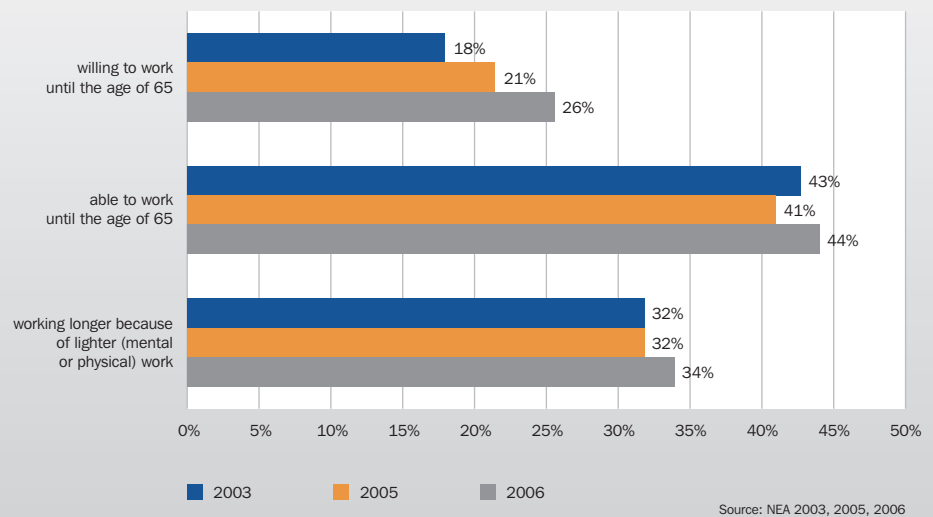
## 2.8 Working until the legal retirement age

- The percentage of employees willing and able to work until the legal retirement age has increased from 18% in 2003 to 26% in 2006
- Well over 40% of employees consider themselves able to work until the legal retirement age
- The extent to which employees are willing and able to work until the legal retirement age varies between sectors
- Healthy employees are more often willing to work until the legal retirement age than unhealthy employees

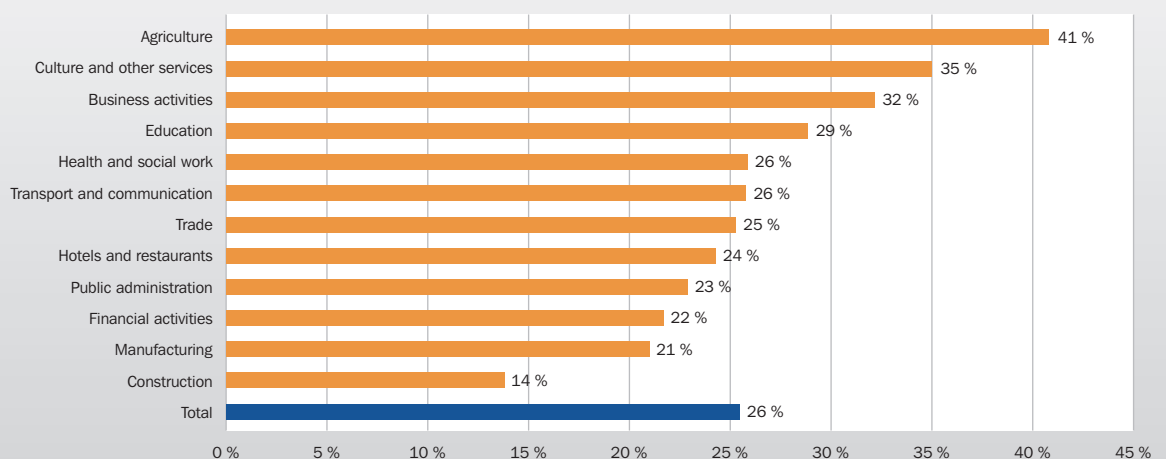
Because of the outflow of employees in the 'baby boom' generation and the still relatively low participation in the labour force of women, immigrant and older workers, the need for employees to continue working until the legal retirement age (which is 65 in The Netherlands) is increasing (Jettinghof & Smulders, 2008).

Figure 2.11 shows that the percentage of Dutch employees willing to work until the age of 65 has increased by almost 50% from 18% in 2003 to 26% in 2006. The percentage of employees who consider themselves able to work until this age remained stable during this period, but is significantly higher.

**FIGURE 2.11 Percentage workers 50 years and older: continue to work until the age of 65**



**FIGURE 2.12 Percentage of employees willing to work until 65 year of age**



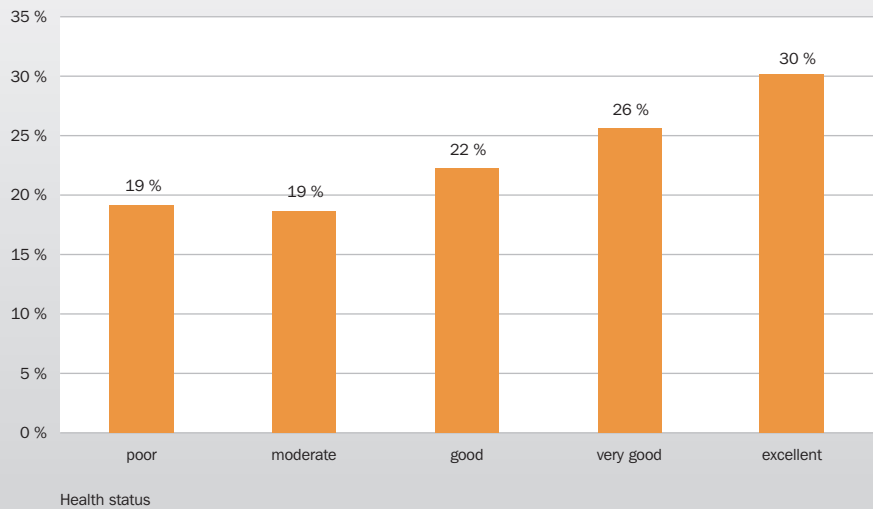
A steady one third of employees reports that less strenuous work (mental or physical) will contribute to their longer participation in the labour force.

The percentage of employees willing or able to work until the age of 65 years varies between sectors. In the sectors agriculture and culture and other services the number of employees willing to work until the legal retirement age is relatively high. In de buil-

ding industry, on the other hand, this percentage is relatively low (see figure 2.12).

The extent to which employees are willing to work until their retirement age is related to their self-reported general health status. Figure 2.13 shows that employees who consider their health to be excellent indicate about 1.5 times more often that they are willing to work until retirement age than employees who consider their health to be poor.

**FIGURE 2.13** Percentage of employees willing to work until 65 years by state of health.



Source: NEA 2006

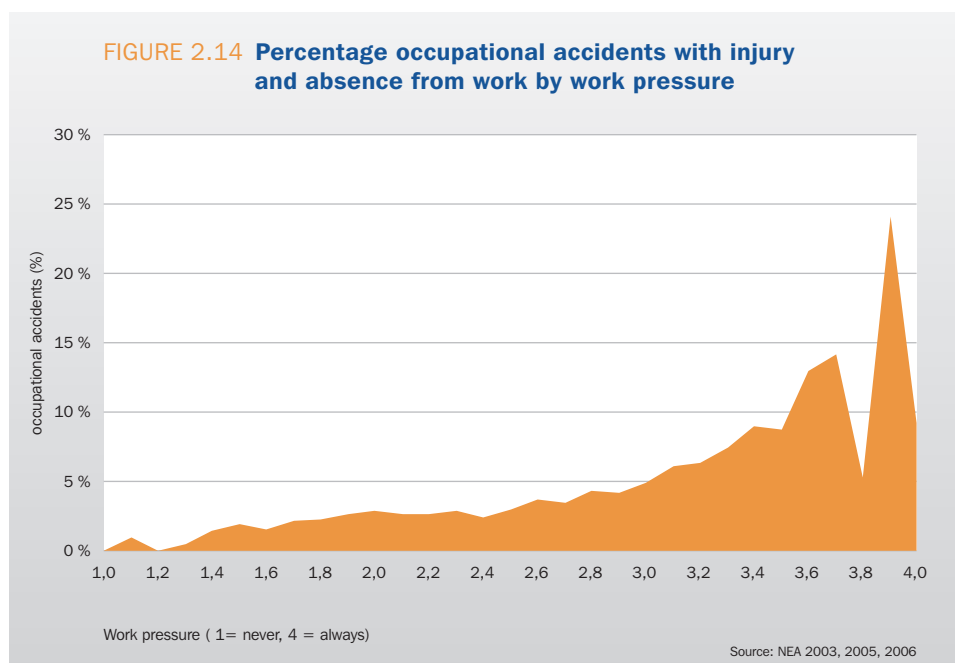
## 2.9 Occupational accidents

- About 3% of Dutch employees have been involved in an occupational accident with physical and/or mental injury and were absent from work due to this accident
- Occupational accidents happen more often to male than to female employees
- Physical injury is more common among men and mental injury is more common among women
- The percentage of employees involved in an occupational accident increases as work pressure increases

In the Netherlands, 3.1% of employees reported that they have been involved in an occupational accident with physical and/or mental injury causing absence from work during the past 12 months.

Occupational accidents with injuries and absence from work are more frequent among men (4.1%) than among women (2.0%). Physical injuries are reported more often by men (76.2%) than by women (56.7%), whereas the opposite is the case for mental injuries (men: 18.3%, women: 35.2%). The prevalence of occupational accidents with injury and absence from work also differs between sectors: these accidents are most common in the sectors hotels and restaurants (6.1%), transport (5.6%), construction (5.3%) and manufacturing (4.9%). In 'office-like sectors' such as financial activities (0.3%), education (1.5%) and business activities (2.2%) occupational accidents are reported less often.

Figure 2.14 further shows that the prevalence of occupational accidents increases with an increase in work pressure. Of employees who report working under work



pressure (almost) all of the time, more than 20% indicated that they have been involved in an occupational accident in the past 12 months. For employees who do not work under such high work pressure, this percentage is substantially lower.



## 2.10 Workplace measures implemented and required

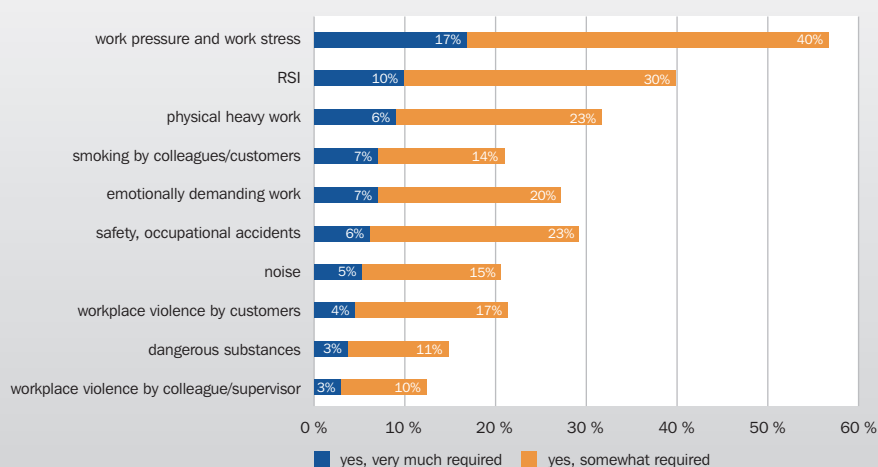
- Over 50% of Dutch employees indicate that workplace measures should be implemented to prevent work pressure and work stress, and 40% think that measures to prevent RSI are required
- Redesigning the workplace is the measure implemented most often to prevent RSI
- Measures to better tune work and private life are taken most often to prevent work pressure
- Measures to counter work pressure and work stress are required most often in the sectors education and health care
- Measures to prevent RSI are required most often in the sectors financial services and the public sector

The NEA asks employees to indicate which measures they think should be taken to improve their working conditions. Figure 2.15 shows that particularly measures regarding work pressure and work stress and RSI are often reported to be necessary: over 50% of Dutch employees indicate that (additional) measures against work pressure and work stress should be taken and 40% desires measures to prevent RSI.

In particular employees in the sectors education (70.8%) and health care (67.1%) indicate a need for measures regarding work pressure and work stress. Measures concerning RSI are said to be required most often in financial sectors (60.1%) and public administration (55.4%).

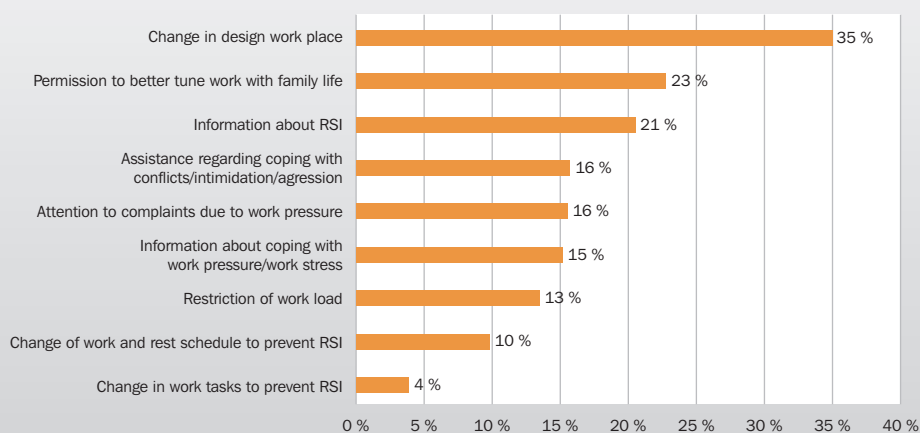
Besides the need for measures, the NEA addresses the extent to which certain specific measures regarding work pressure/work stress and RSI have actually been taken. With respect to RSI, figure 2.16 shows that a redesign of the work place in particular is a measure that is implemented relatively often. As for work pressure, almost a quarter of Dutch employees indicate that sufficient measures have been taken to better tune work and family life.

FIGURE 2.15 Workplace measure needed



Source: NEA 2003, 2005, 2006

FIGURE 2.16 Measures taken to prevent work pressure and RSI



Source: NEA 2005, 2006

### 3 Composition of the sample

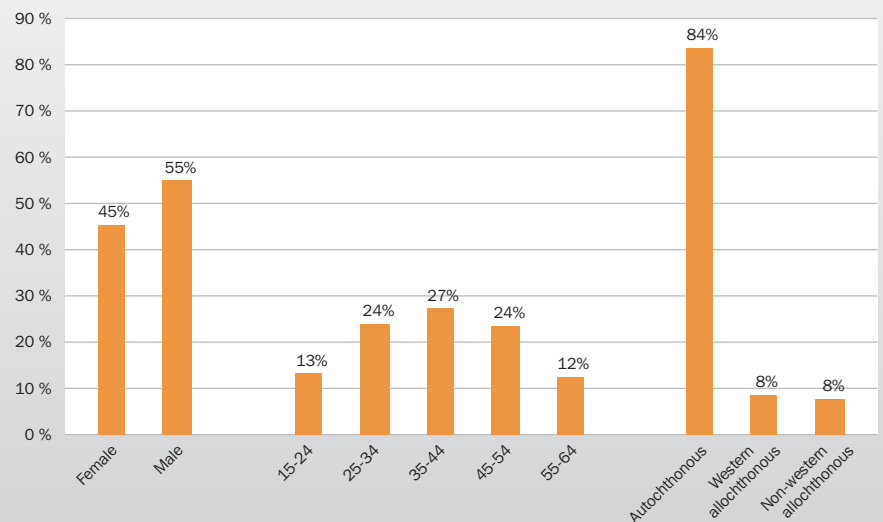
Figure 3.1 gives an overview of the participants of the NEA by gender, age and ethnicity and sector. The sample comprises more male than female employees. Most employees are in the age group of 34 to 44 years and Western and Non-western immigrants are equally represented in the sample.

The distribution of the NEA participants by sector is represented in figure 3.2

Most respondents are employed in the sectors health care, trade and commercial services, which fits with the notion that the Netherlands is a service economy. Only 1% of employees are employed in the agricultural sector.

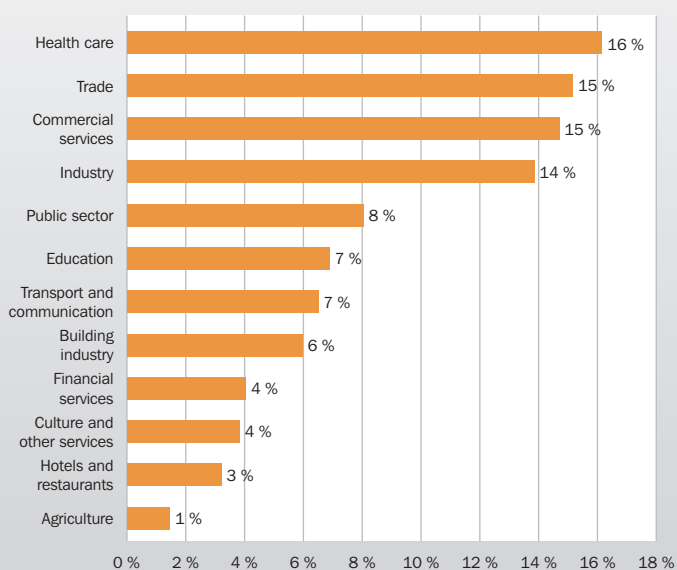
The distribution of participants by professional group (see figure 3.3) matches the picture that arises from Figure 3.2: the majority is employed in industrial, administrative or health care professions and only a small minority works in agricultural professions.

**FIGURE 3.1 The NEA respondents by gender, age and ethnicity**



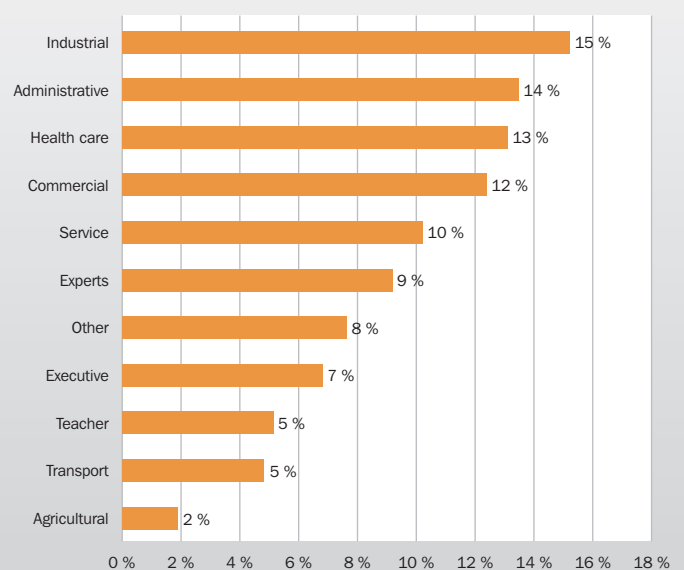
Source: NEA 2003, 2005, 2006

**FIGURE 3.2 The NEA respondents by industrial sector**



Source: NEA 2003, 2005, 2006

**FIGURE 3.3 The NEA respondents by professional group**



Source: NEA 2003, 2005, 2006

## 4 Publications

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Dalen, E.J. van, Sanders, J., & Gründemann, R. (2007). Arbeid, gezondheid en inzetbaarheid. In: *Jaarboek Personeelsmanagement 2008* (Work, health and availability. In: *Yearbook personnel management 2008*). Hoofddorp, The Netherlands TNO Work & Employment: 116-146.

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Venema, A. (2006). Occupational accidents. In: *Worklife in the Netherlands*. P.G.W. Smulders (red.). Hoofddorp: TNO Work & Employment: 67-82.

Houtman, I.L.D. (2006). Health, chronic disease, absenteeism and work disability. In: *Worklife in the Netherlands*. P.G.W. Smulders (red.). Hoofddorp, The Netherlands: TNO Work & Employment: 141-164.

### Book reports

Bossche, S.N.J. van den (2004). *Intimidatie en geweld op het werk: Secundaire analyses Nationale Enquête Arbeidsomstandigheden 2003* (Workplace violence and intimidation: Secondary analyses on the Netherlands Working Conditions Survey 2003). Hoofddorp, The Netherlands: TNO Work and Employment.

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Hooff, M. van & Bossche, S.N.J. van den (2007). *Afwijkende werktijden: deelresultaten van de Nationale Enquête Arbeidsomstandigheden en de TNO Arbeidssituatie Survey*. (Non-standard working hours: Section results of the Netherlands Working Conditions Survey and the TNO working conditions Survey). Hoofddorp, The Netherlands: TNO Work & Employment.

Hooftman, W.E., & Bossche, S.N.J. van den (2007). *Zwangerschap en werk: voorlichting, maatregelen en verzuim: deelresultaten NEA 2003-2006* (Pregnancy and work: information, measures and absenteeism: section results of the Netherlands Working Conditions Survey and the TNO working conditions Survey). Hoofddorp, The Netherlands: TNO Work & Employment.

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Smulders, P.G.W. (2005). *Jongere en oudere werknemers: hun werk, werktijden, ongevallen en verzuim: deelresultaten Nationale Enquête Arbeidsomstandigheden 2003* (Younger and Older employees: their work, working hours, accidents and absenteeism: section results Netherlands Working Conditions Survey). Hoofddorp, The Netherlands: TNO Work & Employment.

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Jettinghoff, K. & Smulders, P.G.W. (2008). Wie kan en wil doorwerken tot 65-jarige leeftijd? (Who is able and willing to work until retirement age?). *Tijdschrift voor Arbeidsvraagstukken*, 24 (1), 88-100.

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