



WORKING TO THE LIMIT

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November 2004

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THE HIGHER EDUCATION UNION

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Stress and work-life balance in academic and academic-related employees in the UK

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Foreword

Stress at work is a major problem in UK higher education. The massive rise in student numbers and the increasing pressure to produce highly-rated research – at the same time as maintaining teaching quality and keeping up with the growth in paperwork – have taken their toll. Academic and related staff have suffered. So too have their families.

In this survey and the earlier AUT survey in 1998 academic and related staff have consistently shown evidence of borderline levels of psychological distress. Stress levels for academic and related staff are higher than for doctors, managers and other professional groups, as well as a sample of the population as a whole. And the impact of long hours and over work are spilling over into employees' homes and family life.

It is now time for employers to take action to reduce work-related stress in higher education and to improve work-life balance for academic and related staff. Employers should ensure that the work staff are expected to do is appropriate and not excessive. Active steps should be taken to reduce student:staff ratios. Employers should invest in related and other staff to improve levels of support for academics. The provision of counselling services should be reviewed. Employers should encourage staff to take their full holiday entitlement – as well as make full use of their rights to flexible working.

Above all we need workplaces where staff are adequately supported, and encouraged to work reasonable hours.

On the evidence of this report, now is not a moment too soon.

Sally Hunt
AUT general secretary

Summary

Background

In 1998, the Association of University Teachers (AUT) commissioned a survey to examine the causes and consequences of occupational stress experienced by academic and academic-related staff in the UK. The results of this study suggested that staff believed that the levels of stress they experienced had increased and the satisfaction they gained from their work had eroded significantly in the previous five years. This was generally attributed to the rapid changes in working conditions in the sector: in particular, the dramatic increases in student numbers, the cutting of public funding, and the increased culture of accountability (associated with the introduction of teaching quality assessment and the Research Assessment Exercise (RAE)). In general, respondents reported that their jobs had become considerably more demanding and an effective work–life balance harder to achieve. More than half of the respondents showed evidence of borderline levels of depression and anxiety.

Aims of the current survey

The aims of this study are two-fold. First, to assess the stressors and job-related strains currently experienced by academic and academic-related employees in the UK, using the previous 1998 findings as a benchmark. Second, to examine in more detail the issue of work–life balance experienced by university employees and the impact this may have on well-being, job satisfaction and intention to leave the sector.

The sample

Questionnaires were sent to 5,000 randomly selected academic and academic-related staff employed in higher education institutions (HEIs) within the UK, drawn from the membership database of the AUT. The response rate was 22%. The sample represented 99 HEIs in the UK, with 75% of participants working in pre-1992 universities. Seventy-six per cent of respondents identified themselves as academic staff.

The measures

A wide range of measures was included: these assessed work stressors (ie a range of work demands) and supportive features of the environment as well as the efforts and rewards of work, job satisfaction, psychological and physical well-being, and aspects of work–life balance. Several open-ended questions were included in order to provide richer data from respondents regarding these issues. Results were analysed for the sample as a whole, and comparisons made between academic and academic-related staff. Where possible, the results were compared with those of the 1998 survey.

Summary of findings

Working hours

Respondents were asked to estimate the number of hours they worked per week. Fifty-nine per cent of full-time employees said they worked more than 45 hours in a typical week and 21% claimed to regularly work more than 55 hours. Half of the sample claimed to be dissatisfied with the hours that they worked. In the 1998 survey, 66% of respondents indicated that they regularly worked more than 45 hours per week. This suggests that working hours, in general, have not been further extended during the last six years. Clearly, however, many academic and academic-related employees in UK HEIs are still working in excess of the 48-hour weekly limit set by the European Union's working time directive.

Working outside the normal working week (9am–5pm, Monday to Friday) continues to be commonplace among academics in particular, with 59% claiming to undertake between 10 and 20% of their overall workload during evenings and weekends. The proportion of respondents who regularly work outside office hours is, however, slightly lower than that found in the 1998 survey. On the whole, the more hours respondents worked (during office hours as well as evenings and weekends), and the higher their levels of job involvement and over-commitment to work, the less clear were their boundaries between working life and home life, and the more conflict they perceived

between their work and home lives. Employees who worked longer hours also had higher levels of stress and more psychological and physical symptoms.

Stress at work

A similar proportion of respondents in 1998 and 2004 agreed or strongly agreed with the statement 'I find my job stressful'. This figure remains high at 69%, with only 13% indicating that they did not experience job-related stress.

Job demands and control

Almost one-half of respondents felt their workloads were unmanageable, although a higher proportion of respondents to the present survey than in 1998 thought their workloads were manageable. The majority, however, felt that their levels of responsibility had increased over the last five years. Mirroring the findings of the 1998 survey, most felt that the amount of administrative paperwork they undertook was excessive. The majority believed that the sector placed too much emphasis on quality assurance, and less than one-quarter of respondents felt this had had a positive impact on the student experience. The majority of academics who responded to the present survey felt that they had greater demands placed upon them to increase their research activity and to publish. Over one-half of the respondents engaged in teaching felt their classes had become too large. Despite these negative factors, however, academics believed that they had quite a high degree of autonomy over how, when and where their work was done.

Support and bullying at work

Respondents were generally positive about the support they obtained from their colleagues: 57% were satisfied with this aspect of their work, which is an improvement on 1998. Respondents were less happy, however, with the administrative and technical support they received, which was felt to be inadequate by 56%. One-third of respondents were dissatisfied with the support from their immediate managers, but a greater proportion (56%) were unhappy with the support they received from senior managers in their institutions. Worryingly, almost one respondent

in five reported having personally experienced bullying or intimidatory management behaviour.

Job satisfaction and involvement

Over one-half of the sample as a whole was at least moderately happy with their jobs. Respondents were most content with aspects relating to the nature of the work: ie with the intellectual stimulation they received and with their opportunities to use initiative. Somewhat lower levels of satisfaction were expressed with more extrinsic working conditions such as remuneration, hours of work and promotion prospects. Academics, particularly those employed on short-term contracts, were less satisfied than academic-related staff with their jobs in general. Nevertheless, the majority of respondents from academic grades were satisfied with the more intrinsic aspects of their jobs, such as the courses they teach and their contact with students. The extent to which respondents from both groups indicated they were involved in their jobs was generally high, but academic staff were particularly highly involved in their work.

Status and job security

More than three-quarters of the sample felt that the status of academic staff had declined during the last five years. Almost two respondents in 10 had felt under personal threat of redundancy during this time. In particular, job insecurity was an issue for respondents who were teachers or researchers, rather than those whose jobs involved teaching and research. Particularly high levels of job insecurity were found among respondents who were employed on short-term contracts.

Intentions to leave

Almost one-half of respondents (47%) said they had seriously considered leaving higher education. More academics than their academic-related colleagues (particularly female academics) wished to leave the sector. The main reasons cited by respondents for wishing to leave were: job insecurity, stress, work overload, excessive bureaucracy, few prospects for promotion and advancement in the sector, and poor work-life balance.

Psychological well-being and physical health

Extremely low levels of psychological well-being were found in this survey. Fifty per cent of respondents had symptoms of psychological distress, a level that exceeds the proportion reported in studies of most other occupational groups. Academic and academic-related staff showed similar levels of psychological distress. No significant difference was found, however, between the overall level of psychological distress found in the 1998 study and the present survey. There appears to be a fairly high level of minor psychosomatic symptoms among the workforce, particularly tiredness and headaches, with only eight per cent of respondents claiming to have experienced none of the listed symptoms during the preceding 30 days.

Effort–reward imbalance

The theory of effort–reward imbalance suggests that employees become distressed if the effort they put into their work is not balanced with the rewards they receive. In general, respondents to this survey perceived some imbalance between their job-related efforts and rewards. The results indicate, however, that while only a minority were very distressed due to the efforts they put in and the lack of rewards they received, the distress they experienced was clearly related physical symptoms.

Work–life balance

Considerable variation was found in the extent to which respondents worked at home, and worked outside normal office hours. On average, academic staff claimed to do one-quarter of their work, and academic-related staff 13% of their work, at home. Both groups of employees, particularly those in shared or open-plan offices, would like to work at home more than they did at present, largely because they could rarely work without interruption when they were in their institutions. Academics almost invariably indicated that, due to excessive interruptions, any task that required concentration (such as researching and writing papers or preparing grant applications) had to be done at home. It should be emphasised, however,

that academic and academic-related employees wished to work from home more often during normal working hours rather than at evenings or weekends.

There is some scope for many employees in HEIs to adapt their working patterns to fit their preferences and needs. Fourteen per cent of respondents from the academic grades, however, were expected to be present in their institutions between 9am and 5pm; these employees indicated that they were rarely able to work from home during normal office hours, despite the fact that their places of work typically did not provide conditions to enable them to adequately perform their work. These ‘visibility’ policies appear to actively work against the work–life balance of employees as many felt they had little choice but to extend their working day into evenings and weekends in order to cope with the demands of their jobs. Although some variation was found, many academics indicated that they preferred to work at home outside office hours rather than in their institutions, in an attempt to integrate their work with family life. Such practices are unlikely to help employees create an acceptable work–life balance.

Unsurprisingly, boundaries between work and home appeared to be somewhat blurred for the majority of respondents. Few reported that they managed to maintain complete separation between their work and home lives. Most respondents appeared not to have achieved an acceptable balance between their work and their home lives, and expressed the desire to have more separation between the two domains. It should be emphasised, however, that academics were happy to accept greater merging of their work and non-work lives than their academic-related colleagues. Separation between work and home life does not merely involve creating physical boundaries: the majority of respondents indicated that their work also invaded their non-working lives in a psychological sense. This was characterised by preoccupation with work problems, difficulties in sleeping and irritability with family and friends.

The majority of respondents, particularly academics, felt that their institutions made few attempts to help

employees achieve work–life balance, although some recognised that flexibility of working hours and the ability to work from home were benefits provided by employers. In their responses to the open-ended questions that formed part of this survey, a number of people with young children commented that their line managers and their institutions were supportive towards their attempts to improve their management of work and family responsibilities. Some respondents without young children, however, expressed in fairly strong terms that work–life balance was not only for employees with young children, and that all employees should have the scope to balance work with other activities; this group believed that institutional policies should encompass the needs of the workforce as a whole.

Knowledge of support services and availability of help

Many respondents indicated that the issue of occupational stress went unrecognised in their institutions. Some remarked that an admission of being stressed was perceived as a sign of weakness. Almost one-half of the sample (45%) said they would not be able to discuss problems relating to stress with their managers. These findings may imply less than satisfactory relationships between managers and staff in UK HEIs, and perhaps also some stigmatisation of stress in the sector. Almost one-half of the sample was unsure whether their institutions provided any support to help them manage stress. Particularly notable was the finding that 74% of respondents were unaware of the existence of the AUT stress helpline. Many, however, believed that formal and consistent stress management policies should be introduced across the sector.

Only 18% indicated that their employers had informed them that parents, adopters and guardians of children under the age of six could request flexible working. Interestingly, there were no significant differences in levels of awareness between respondents with young children and those without. It is evident that the services currently provided in UK HEIs to help employees manage stress and the work–home interface need to be considerably more visible.

Gender

There were few differences between men and women in general, but female academics were more likely than their male colleagues to report that they had been subject to unacceptable behaviours such as bullying.

Relationships between employment issues and stress

Respondents who had been bullied by managers or colleagues tended to report more physical and psychological symptoms of ill health. A number of other job-related features were particularly strongly associated with physical and psychological symptoms, such as lack of opportunity for personal development, perceived pressure to publish and to obtain research funding, and demands related to quality assurance procedures. On the whole, respondents who reported more job control and support from their colleagues and managers expressed greater job satisfaction and had higher levels of psychological and physical health.

Work–life balance and stress

Respondents who perceived clearer boundaries between home and work, tended to be less stressed by their work, had better psychological and physical health and reported higher levels of job satisfaction. The role of HEIs in helping their employees achieve a more effective work–life balance has been highlighted in this survey; respondents who felt that their institutions supported them in establishing and maintaining a balance were more psychologically and physically healthy, and were less likely to wish to leave the sector.

Annual leave

Only 40% of the sample indicated that they took all their annual leave entitlement, with one respondent in five failing to take two weeks or more. Many remarked that the demands of their jobs meant that they were unable to find the time to take a break. The results of this survey, however, suggest that annual leave may be important for employee well-being since respondents who took a greater proportion of their leave entitlement were more psychologically and

physically healthy, more satisfied with their jobs and had a better work–life balance than those who did not.

Conclusions

The study conducted in 1998 found that the changing nature of work in the higher education sector had resulted in work overload, long working hours, job insecurity and high levels of stress for many academic and academic-related employees. On the whole, respondents expected things to get worse. Fortunately these gloomy predictions do not seem to have been fulfilled: the levels of job-related stress and psychological distress found in the present survey are strikingly similar to those found in 1998. There is some evidence that over the past six years employees in the HE sector may have acclimatised to the increasing demands and pressure to be more productive; furthermore, slightly higher levels of support from various sources appear to be available to employees than in 1998. This is not a cause for complacency, however, as employees perceived little difference in the level of demand they faced and, as in 1998, the perceived level of these demands is clearly related to ill health, job dissatisfaction and intentions to leave the sector. The level of psychological distress present in employees in the sector remains a considerable cause for concern. The level of demand experienced by academic and academic-related employees is highlighted by the fact that the proportion of respondents who indicated that they could cope with the demands of their jobs (38%) is less than half of the minimum Health and Safety Executive benchmark of 85%.

The findings of this survey have important implications for national and institutional policy and practice in UK higher education. The provision of high quality education by UK institutions is dependent upon healthy and motivated staff who have the resources necessary to do their work, and who have an acceptable balance between work and home lives. In general, although employees like the flexibility inherent in their work, many do not feel they can achieve a balance that meets their needs under present conditions. Academic and academic-

related employees in the UK regularly work during evenings and weekends, as they are unable to meet the demands placed upon them during 9am to 5pm, Monday to Friday. Academics in particular are frequently forced into working evenings and weekends because their working environment in their institutions prohibits them from doing the work they are required to do during normal office hours.

People seem to benefit from clearer boundaries between their work and home lives. The findings of this survey suggest that an environment that supports employees in establishing and maintaining a balance between their work and non-work lives would improve psychological and physical health, employee retention and, arguably, performance. Although further support for working parents is clearly necessary, work–life balance programmes need to encompass the needs of the workforce as a whole.

This survey found considerable variation among respondents in what constitutes an acceptable work–life balance. Clearly, employees have some responsibility in creating and maintaining a balance between the work and non-work domains that meets their needs – although many might benefit from some guidance in how they can accomplish this. In order to achieve and maintain a healthy state of balance, however, employees need also to be supported by organisational policies and practices. The availability and legitimisation of flexible working hours and the ability to work from home are likely to go some way towards improving work–life balance for many. It will also be necessary to promote workplace cultures that support employees in their attempts to work reasonable hours and encourage them to take their full leave entitlement. Furthermore, the fact that performing the job well is often not consistent with high visibility and availability in the workplace during office hours should also be recognised. In order for any significant improvement to occur, however, it is necessary for enhanced institutional support to be paralleled with a creative re-assessment of the expectations that institutions have of their employees.

Working to the limit

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1 Introduction

Background

Stress has become one of the most significant health and safety issues in the workplace. The Health and Safety Executive, a public body sponsored by the Department of Work and Pensions, defines stress as ‘the adverse reaction people have to excessive pressure or other types of demand placed on them.’ The HSE says there is a clear link between poor work organisation and subsequent ill health. Research commissioned by the HSE has indicated that:

- about half a million people in the UK experience work-related stress at a level they believe is making them ill;
- up to 5 million people in the UK feel ‘very’ or ‘extremely’ stressed by their work;
- work-related stress costs society about £3.7 billion every year (at 1995/6 prices);
- self-reported work-related stress, depression or anxiety account for an estimated thirteen and a half million reported lost working days per year in Britain.

The HSE says its ‘key messages’ on stress are:

- work-related stress is a serious problem for organisations. Tackling it effectively can result in significant benefits for organisations;
- there are things organisations can do to prevent and control work-related stress;
- the law requires organisations to take action.

The HSE has developed a set of management standards which it launched in November 2004. These are designed to help employers provide support and protection for employees in their work, and provide employees with work which is achievable, appropriate to their skills and abilities, and which employees have control over, where possible.

In law, all UK employers have a duty to take reasonable care for the health and safety of their employees. Breach of this duty may enable employees to resign and claim constructive

dismissal, or claim compensation for physical or mental damage. The Management of Health and Safety at Work Regulations 1999 say that an employer must ‘make a suitable and sufficient assessment of the risks to the health and safety of his employees, to which they are exposed while they are at work’. This risk assessment should include the risk of employees developing stress-related illness as a result of their work.

Epidemiological research

Stress has become one of the most significant health and safety issues in the workplace. Epidemiological research recently conducted in the UK by the Health and Safety Executive (HSE) indicated that stress was the second most frequently reported condition of individuals who disclosed a work-related illness (Jones *et al*, 2003). The HSE study also provided evidence that some professions are worse off than others: employees in all sectors of education were found to be at significantly higher risk of work-related stress, anxiety and depression than most other occupational groups.

A considerable body of research is available on stress in teaching, dating back to the 1930s. Most of this, however, focuses on schoolteachers to the relative exclusion of those who work in post-compulsory education. Although the higher education sector is a fairly new focus of concern, there is evidence to suggest that academic and academic-related employees in the UK could represent a particularly vulnerable group.

In 1998, the AUT commissioned a survey that examined the nature, causes and impact of workplace stress experienced by academic and academic-related staff (Kinman, 1998). The current survey aimed to investigate employees’ perceptions of their working conditions and the levels of stress, job satisfaction and psychological health that they experienced, using the 1998 survey as a benchmark. The survey further aimed to examine in more detail a number of issues raised by the 1998 survey that gave cause for concern. Particular emphasis was

placed on exploring a range of issues relating to work–life balance experienced by university employees, and the impact this may have on well-being, job satisfaction and intention to leave the sector. Furthermore, employees’ perceptions of how their working conditions impacted on their home lives, and the services provided by higher education institutions (HEIs) to help them to develop and maintain a work–life balance, were also examined.

Stress in higher education: a brief review

Traditionally, working in higher education has been regarded as highly satisfying and comparatively low in stress. Tenure, and the freedom to engage in personal teaching and research interests were thought to protect academics from the working conditions usually associated with occupational stress, such as job insecurity, low levels of autonomy, and a lack of ‘fit’ between the requirements of the job and personal characteristics and needs (French *et al*, 1982; Kahn *et al*, 1964; Karasek, 1979). A culture of collegiality was also believed to provide a supportive working environment that buffered the negative impact of any stress that academics might have experienced (Gmelch *et al*, 1984).

Working conditions in universities have changed considerably in recent years. The results of the 1998 survey, together with other research in the sector, suggest that the vulnerability of academic and academic-related staff to occupational stress has increased, and the satisfaction that they experience from their jobs has been eroded. Several explanations could be provided for these findings: most could be linked to the widespread and rapid changes that have recently occurred in academic institutions.

Over the last decade or so there have been fundamental changes in the context and conditions of academic work in the UK. The demands placed on academics have increased rapidly as a result of pressures brought about through a dramatic

expansion in student numbers, increased demands for accountability and a reduction in external funding. Today, 43% of young people enter higher education. Full-time student numbers have increased from 535,000 in 1980 to 1.25 million in 2000 – and a total of more than two million students in all. This has presented a considerable challenge for the sector, as there has not been a corresponding increase in the numbers of teaching and support staff. An examination of the growth in student:staff ratios over the last three decades provides an objective measure of the increase in workload for employees in HEIs. Ratios have increased from 8:1 in 1970 to 16:1 in 2000, and the government’s target of 50% of young people participating in higher education by 2010 is likely to raise the ratio still further.¹ Research recently conducted in Australia by Gillespie *et al* (2001) suggests that the increased ratio of students to staff, together with a more diverse student population with a ‘consumer oriented’ approach to study, has resulted in rising levels of stress for many academics. A similar picture is likely in the higher education (HE) sector in the UK.

Increased participation has been accompanied by a decline in government funding of the unit of resource per student, and the growth of quality monitoring regimes. Academics are being subjected to increased levels of scrutiny of their teaching and research – the results of which are likely to determine future levels of funding. Winefield (2000) has highlighted the public nature of most aspects of academic work and has suggested that there are now few occupations in which performance is so open to examination. There is some evidence that the wide array of systems and procedures now imposed externally by funding bodies, and internally by institutions, in order to satisfy these requirements, is perceived as intrusive and demanding by the workforce (McNay, 1997).

Over the last decade or so, studies conducted in HEIs in the UK have highlighted a move away from a

¹ This ratio is an average based on figures from all HEIs in the UK.

culture of collegiality (which emphasises consensual decision-making, cooperation and shared values) towards a more 'managerialist', non-participative style of management and the adoption of business/industrial values. Research suggests that academics see this as detrimental to the quality of higher education (Cross & Carroll, 1990; Jackson & Hayday, 1997). Furthermore, fundamental contradictions exist between the 'traditional' academic and managerialist paradigms, primarily because academics expect a considerable degree of autonomy in structuring and performing their work (Brett, 1997). The growth of quality monitoring regimes, in particular, is thought by some to have resulted in academic 'de-professionalisation'. Research conducted in the Australian university sector by Winter *et al* (1998) suggests that an academic working under managerialist conditions is likely to experience low morale, a crisis of professional identity and increased stress. Research also suggests that bullying and intimidatory practices may have become more commonplace in HEIs. A study of academics working in 32 different institutions in the UK conducted by Lewis (1999) reported that bullying was more prevalent than sex discrimination, and sexual and racial harassment. The perceived reasons for the increase in bullying in HEIs was poor managerial training and increased pressure on management.

Although it is acknowledged that some variety in one's work can be a positive feature (Taris *et al*, 2001), role conflict and role overload are job features that have long been associated with stress (French & Caplan, 1973). Academic work (particularly for employees involved in teaching and research) now encompasses many different roles, and the demands inherent in these roles have a clear potential for conflict. The job now commonly involves: preparing lectures and teaching and supervising students; providing academic advice and pastoral care to

students (who are themselves experiencing increased levels of pressure); planning and conducting research; writing research papers, reports and books; attending conferences; applying for research funding; and collaborating with industry in order to generate external income. There is also the expectation that new learning technologies and more flexible modes of delivery will be utilised, which involves frequent monitoring of trends in educational research and updating of IT skills.

Over the last 20 years, academics have fallen behind other professional groups in terms of pay. In 2002, the Prime Minister noted that over the previous 20 years, university lecturers' pay had increased by only five per cent (in real terms), while the figure for the rest of the economy (average earnings) was 45%.² A recent survey of AUT members reported that 66% of respondents were dissatisfied with their current level of pay as a reflection of their responsibilities.³ There is also evidence that job insecurity is increasing among university employees. HEIs frequently close entire academic departments and offer voluntary redundancies and early retirement options to their staff; some employees have been made compulsorily redundant. Increasing numbers of staff are now on employed on fixed-term contracts, which has contributed to the rise in job insecurity in the sector. Recent figures from the Higher Education Statistics Agency (AUT, 2004) indicate that more than 40% of academic staff are now employed in fixed-term posts.

Stressors in higher education

Evidence has been provided that widespread changes in HEIs in the UK have led to an increase in demand placed upon academic and academic-related staff. Until fairly recently, what was known about the stressors and strains experienced by employees in the sector was based on surveys of staff working in single institutions (eg Abouserie, 1996; Daniels & Guppy, 1994; Niven & Cutler, 1995). In 1998, the AUT commissioned a national survey of members in

² Prime Minister, House of Commons, 27 November 2002; www.publications.parliament.uk/pa/cm200203/cmhansrd/vo021127/debtext/21127-03.htm#21127-03_dpthd0

³ ERS market research (2003) AUT survey of members 2003, p. 71

order to examine the nature and impact of work stressors experienced by academic and academic-related employees in the UK. A number of specific sources of job pressure were highlighted by the 782 respondents, along with high levels of perceived stress and comparatively low levels of psychological well-being. Among the most significant issues raised in this survey were:

- Workload and other job demands
- Job security
- Working hours
- Job control
- Work–life balance
- Turnover of staff
- Job satisfaction
- Psychological health.

These factors will be discussed with reference to the findings of the 1998 survey and other relevant research. The aims of the current study will also be presented under these headings.

Workload and other job demands

A significant majority of respondents to the 1998 survey (74%) indicated that their jobs had become more demanding in the five years preceding the study, and the pace of their work had intensified. In general, respondents expressed difficulty in coping with the volume of work and the diversity of tasks required of them. A lack of influence in institutional and departmental decision-making was generally expressed, together with insufficient opportunities for training and development, poor communication, and low levels of support from managers and (to a lesser extent) colleagues. Academic staff tended to perceive increased pressure from their institutions over the preceding five years to obtain research funding and to increase their research and consultancy activities. The demands inherent in complying with quality assessment procedures were commonly believed to have had a negative impact on the quality of teaching and research and, ultimately, the student experience.

The present survey aimed to examine whether perceptions of workload and the above-mentioned job demands had changed since 1998.

Job security

One in three respondents to the 1998 survey indicated that they felt insecure in their jobs. More than one half (54%) of the sample maintained that there had been job cuts or redundancies in their institutions in the three years prior to the survey, and one in five indicated that they had felt under personal threat of redundancy during this time. The extent and impact of job insecurity experienced by UK academic and academic-related staff is examined in the current survey, together with any differences in overall levels of job insecurity perceived by employees.

Working hours

Sixty-one per cent of respondents to the 1998 survey reported that they worked more than 45 hours in a typical week, with 21% regularly working in excess of 55 hours. Research has associated long working hours with ill health: this relationship is thought to be particularly strong where average working weeks regularly exceed 48 hours (Sparks *et al.*, 1997). Respondents to the 1998 survey who worked over 50 hours per week, and/or who indicated that they took work home on a regular basis, were in significantly poorer psychological health than those who did not. The present study revisits the working hours of academic and academic-related staff in order to establish whether any overall changes in the length and pattern of the average working week had occurred in the last few years. Further aims were to examine the impact of working hours and working practices (ie where and when employees work) on work–life balance, health and job satisfaction.

Job control and support

In general, respondents to the 1998 survey reported a reasonable degree of control over how they structured their working day; more than one-third of the sample maintained, however, that their levels of autonomy at work had eroded considerably. Particularly notable was the finding that more than one-third of

participants indicated that the quality assessment procedures imposed by internal and external bodies had compromised their professional independence.

Satisfaction with supportive features of the workplace was also examined in the earlier survey. Conflict with management was generally thought to have increased considerably during the preceding five years, and cooperation between colleagues to have declined. More than one-half of participants indicated that the atmosphere in their departments or work groups had become more competitive during this time.

Research suggests that lack of job control and negative perceptions of the social climate at work can be detrimental to the well-being of employees and organisations (Karasek & Theorell, 1990; Spector & Jex, 1998). The present survey aimed to build on the findings of the 1998 study by examining the impact of more specific aspects of job control (such as control over working methods, and where and when work is done) and perceptions of support provided by various sources in the workplace.

Work-life balance

A primary aim of this survey was to examine a range of issues relating to work-life balance in academic and academic-related staff in the UK. Over the last two decades a body of evidence has accumulated to indicate that work frequently 'spills over' into the non-work domain, and that its impact there can be severe and far-reaching (Kinman & Jones, 2001). It has been argued that academics may be more likely than other professionals to experience problems in developing and maintaining an effective work-life balance due to their work being essentially 'open-ended' (Wortman *et al*, 1991). Little systematic research has yet been conducted that examines the extent and impact of work-life conflict experienced by university employees. A recent survey of AUT members provided some evidence that academic and academic-related employees may be experiencing difficulties in achieving an effective balance between the work and

non-work domains. Sixty-five per cent of respondents to this study indicated that their quality of life was impaired by their work to some extent, and 17% said it was impaired to a great extent.⁴

There is evidence that the working patterns adopted by academics, in an attempt to cope with the demands of their work, may have an impact on their work-life balance. A study conducted by Court (1996) that used daily diaries to examine academics' use of time found that half of all the personal research and scholarship reported by respondents was done outside 'office hours' (ie 9 am to 5 pm, Monday to Friday). Respondents to the 1998 survey also indicated that working during evenings and weekends had become commonplace: over one-half of the sample (58%) reported that they did more than 20% of their work during evenings and weekends. Two-thirds (67%) indicated that the demands of their work encroached more into their private lives, suggesting that a healthy balance between work and the non-work domain had become harder to achieve. Furthermore, findings revealed that the more hours respondents spent working during evenings and weekends, the lower their job satisfaction and psychological well-being. The importance of perceived conflict between work and home for well-being was further underlined by the fact that this was a stronger predictor of psychological distress than any other potential source of work pressure.

As a considerable proportion of academic and academic-related employees work during evenings and weekends, it is likely that at least some of this work is done at home. Little is known, however, about the extent of 'working from home', the type of work that is most likely to be done there, and the impact of this practice on employees. The current study aimed to investigate these issues. A poor balance between work and non-work life is not merely as a result of physically working at home, it can also involve 'carrying over' negative feelings that were engendered

⁴ ERS market research (2003) AUT survey of members 2003, p. 95

in the workplace into the non-work domain, and worrying about work when not physically performing it. The extent and impact of this form of 'spill-over' from work into the non-work domain experienced by employees in HEIs is also investigated here.

As well as having deleterious consequences for the employee, job demands can have a negative impact on leisure and social activities and family life. Around two-thirds of respondents to the 1998 survey maintained that the demands of their work interfered with their personal lives and family relationships. The potentially serious consequences for academics of poor work-life balance has been previously highlighted in a study by Doyle (1998), where one-third of the sample indicated that their children and/or partners suffered as a result of the demands of their work, and 13% believed that their workloads had contributed towards the breakdown of personal relationships.

Although employees might experience negative and damaging conflict between work and other life domains, it should be emphasised that work can enhance non-working life and family relationships, for example, if satisfaction with the job in general and particular achievements made at work lead to a positive mood at home. The outcome for employees and their families might be dependent upon several factors: for example, the degree of demand perceived by an employee; perceptions of control over their workload and how, when and where the work is done; the degree of job satisfaction and job involvement they experience; and the extent to which they would like their work and home lives to be integrated. This study aimed to examine these issues.

Psychological health

There is evidence that levels of psychological well-being in university employees may be low in comparison with other professionals and with the general population. Doyle & Hind (1998) found levels of burnout in a sample of nearly 600 UK academics that were comparable with those reported by members of the medical profession (generally considered to be a highly stressed group). More

recently, research by HEFCE on a cross-section of university employees in the UK also suggests that levels of psychological well-being may be low across the sector – especially among academic grades (Tytherleigh, 2003).

The survey conducted for the AUT in 1998 utilised the General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988) in order to assess levels of psychological well-being in academic and academic-related staff. As an extensive range of normative data is available, comparisons could be made between average levels of psychological health found in the sample under investigation and other occupational groups. Fifty-three per cent of academic and academic-related staff who responded to the 1998 survey were experiencing borderline levels of depression and anxiety. This proportion was considerably higher than levels of psychological distress found in other professional groups and the UK population as a whole (Mullarkey *et al*, 1999; Taylor *et al*, 2004). The job characteristics and working conditions that were most strongly related to psychological distress were professional constraints (such as lack of influence over decision making and poor career prospects) and poor work-life balance. The present survey also utilised the GHQ-12 in order to compare the overall level of psychological health of university employees in 2004 with that found in 1998, and re-assess relationships between job stressors and employee well-being.

A body of evidence suggests that job stressors are not only detrimental to psychological well-being, they can also have a negative impact on physical health (eg Spector & Jex, 1998). Although not explicitly measured in the 1998 survey, in response to the open-ended questions that formed part of this survey, respondents described experiencing a range of ailments that they believed had been caused or made worse by the demands of their work. The current study, therefore, aimed systematically to examine relationships between the demands experienced by academic and academic-related employees and physical, as well as psychological, health.

Job satisfaction

In a national survey of attitudes to work, respondents from post-compulsory education reported lower levels of satisfaction and job security, and indicated that they felt less valued by their employers, than the 20 other occupational groups included (Millward-Brown, 1996). One respondent in five admitted thinking about leaving higher education on a daily basis, while an additional 20% had such thoughts about once a week. In the 1998 survey commissioned by the AUT, almost one half of the academic and academic-related staff who responded said that they had seriously considered leaving the sector. Those who wished to leave tended to have higher workloads, perceive more job-related pressure and more negative spill-over between the work and non-work domains, and experience higher levels of psychological distress.

A body of evidence has accumulated that links occupational stress with job dissatisfaction (eg Sullivan & Bhagat, 1992). The findings of the 1998 survey suggest, however, that the relationship between work stress and job satisfaction is not a simple one for employees in the HE sector. In spite of the high levels of stress reported, a considerable majority of respondents (especially academics) maintained that they gained a great deal of satisfaction from some aspects of their jobs, and believed that their work was rewarding and worthwhile. Doyle & Hind (1998) found a similar pattern in a sample of UK university lecturers: although long working hours and high levels of burnout were found, 40% of respondents indicated that they found their work intrinsically motivating, enjoyable and potentially very rewarding. Although this ambivalence might appear to be counter-intuitive, psychological research on job satisfaction provides a potential explanation. It has been suggested that some professionals might perceive high levels of occupational stress and express dissatisfaction with extrinsic aspects of their jobs, but may still feel generally satisfied at work provided

their intrinsic needs are met (Kacmar & Ferris, 1989).

In order to gain further insight into job satisfaction experienced by employees in HEIs in the UK, this survey aimed to examine levels of satisfaction with intrinsic features of work (such as opportunities to use initiative, promotion prospects and degree of intellectual stimulation) as well as more extrinsic factors (such as rate of pay, hours of work and job security). For academics, the degree of satisfaction with aspects of teaching and research was also assessed.

Aims of survey

This survey aimed to examine the following issues in a sample of academic and academic-related employees working in HEIs in the UK:

- perceptions of the extent and nature of job-related demands;
- perceptions of job control and support;
- job satisfaction and job involvement;
- intentions to leave the HE sector;
- levels of psychological strain and physical ill-health;
- working hours, and working patterns and practices;
- the extent of change in job demands, working patterns, and employee well-being in the period between 1998 and 2004;
- issues relating to work–life balance, and the extent of integration between the work and the non-work domains;
- relationships between job demands and working practices and work–life balance;
- knowledge of, and attitudes towards, any support services provided by UK HEIs to help employees maximise work–life balance;
- strategies that employees believe would help minimise job-related stress and maximise work–life balance.

2 Survey method

Profile of the sample

The target sample for this survey comprised 5,000 academic and academic-related staff employed within in HEIs in the UK. The sample was randomly drawn from the membership database of the AUT. The respondents were from a variety of backgrounds: these reflected the membership of the association in terms of type of job, mode of employment, grade of post and length of service.

The questionnaire – measures

This consisted of a range of self-report measures, some of which were designed for this survey. Items in the sections on job content and perceptions of changes in working conditions were based on the previous 1998 survey. Other items were well-established measures, or were adapted from such measures. The questionnaire can be seen in Appendix 1 (see page 51). Where utilised, all scales had high levels of reliability (see Appendix 2, page 60).

The following measures were included:

Demographic information: this included gender, age group, details of job and employment history.

Working hours (both on and off site): respondents were asked to estimate the number of hours worked per week in total, and the proportion of those worked outside normal working hours (ie 9am to 5pm, Monday to Friday).

Job content: 24 items assessed perceptions of work features incorporating job demands (eg ‘My workload is manageable’), support from a number of sources (eg ‘I have an adequate level of administrative and technical support’), and aspects of job control (eg ‘I have a choice in deciding how I do my job’). Four

items assessed demands mainly relevant to academic staff (eg ‘My lecture and tutorial groups are too big’). Responses were requested on a five-point scale (1=strongly disagree, 5=strongly agree). A further ‘not relevant’ option was offered.

Perceptions of recent changes in working conditions: nine items assessed employees’ perceptions of any changes they might have experienced during the preceding five years, and feelings relating to these changes (eg ‘The status of academic staff has declined in this country’). Responses were requested on the same scale, as described above. Five further items addressed primarily factual matters about changes, for example ‘Have there been redundancies or job cuts in your institution?’ Response options here were ‘Yes’, ‘No’, or ‘Don’t know’.

Turnover intentions: A single item asked whether respondents had seriously considered leaving higher education (other than through early retirement). Response options were ‘Yes’, ‘No’, or ‘Don’t know’.

Job-related efforts and rewards: 16 items were used based on the Effort–Reward Imbalance measure designed by Siegrist (1996). This assesses a range of demands (or efforts) commonly required by jobs, together with a number of potential rewards. This measure is based on a theory suggesting that it is not merely effort that results in strain, but an imbalance between the efforts that individuals believe that they put in and the rewards they receive. Items assess both the existence of these efforts and the extent to which employees are distressed by them. An example of a reward item is shown below:

Work–life balance: A variety of questions was included in this section. The extent to which people worked at

Considering all my efforts and achievements, my salary/income is adequate

Agree

Disagree

.....

I am not at all distressed

I am somewhat distressed

I am distressed

I am very distressed

home was examined, together with the type of work they do there (eg accessing e-mail). Respondents were asked with whom they shared their household, and whether they could work without interruptions at home. Expectations held by employers in terms of visibility in the workplace were assessed, together with the extent to which people kept their home and work lives separate (and the extent to which they would like home and work to be separate). Perceptions of support provided by employers to aid work–life balance were also assessed here.

Over-commitment: A six-item scale developed by Siegrist (1996) was used. This assesses the personal characteristic of excessive commitment to the job, a factor which is likely to influence perceptions of effort and reward from work, as well as contribute to poor work–life balance. An example of an item is: ‘People who are close to me say I sacrifice too much for my job’ (responses are on a four-point scale ranging from 1=strongly disagree to 4=strongly agree).

Work–family conflict: An established five-item measure of perceived conflict between work and family was included (Netemeyer, *et al* 1996), for example ‘The amount of time my job takes up makes it difficult to fulfil other responsibilities (eg family, social, community etc,)’. Responses were on a seven-point scale (1=strongly disagree, 7=strongly agree).

Job satisfaction: 10 items were used that were adapted from the Warr *et al* (1979) measure of job satisfaction. Items assessed levels of satisfaction with several extrinsic aspects of work (eg rate of pay and hours or work) as well as more intrinsic factors (eg the job itself). Responses to each aspect were invited on a seven-point scale ranging from 1=‘I’m extremely dissatisfied’ to 7=‘I’m extremely satisfied’. Four further items address satisfaction with aspects of the job relevant to academic staff only.

Job involvement: a five-item measure of job involvement was used (based on Kanungo, 1982). An example of an item is as follows: ‘The most important things that happen to me involve my job’

(responses range from 1=strongly disagree to 5=strongly agree). The average scores for all items gives an index of job involvement.

Psychological well-being: this was measured by the 12-item General Health Questionnaire (GHQ–12: Goldberg & Williams, 1988). This measure is widely used in occupational settings as a measure of general distress. Responses are on a four-point scale. An example of an item is ‘Have you recently felt constantly under strain?’, where responses range from ‘not at all’ to ‘much more than usual’. Scoring is by the ‘Likert’ method (where responses are scored 0–3) and the GHQ (‘caseness’) method (where items are scored as 0 or 1, indicating an absence or presence of a symptom). The latter method identifies the number of individuals in the sample with scores comparable with those of psychiatric outpatients. Both types of scoring were used in this study.

Physical health symptoms: this was measured by the 18-item Physical Symptoms Inventory (Spector & Jex, 1998) which asks about the existence of a range of symptoms over the preceding 30 days.

The availability of support: seven items asked about the extent to which respondents felt able to discuss stress-related problems with managers and colleagues, and assessed levels of awareness of various services such as stress management training and the AUT stress helpline.

Work–family policies: awareness of the legal right of parents/adopters/guardians of children under six to request flexible working conditions was assessed.

Open-ended questions: several open-ended questions were included which were designed to elicit participants’ personal experiences of job demands, working patterns and practices, and work–life balance. Participants were also invited to suggest measures that could be taken by employers and employees in order to improve work–life balance in HE in the UK.

3 Results

From the 5,000 questionnaires distributed, 1,108 were returned: this represents a response rate of 22%. Although lower than the 40% achieved in the 1998 survey, the present response rate is comparable with other studies conducted in the sector (eg the 25% obtained in a recent national survey of university employees in Australia by Winefield *et al* 2003). It should be emphasised, however, that this was a survey of AUT members only, and the findings do not necessarily reflect the opinions of all university employees. Furthermore, as the AUT tends to have a greater presence in the older universities, the findings reported here may not represent the issues facing employees in the new university sector.

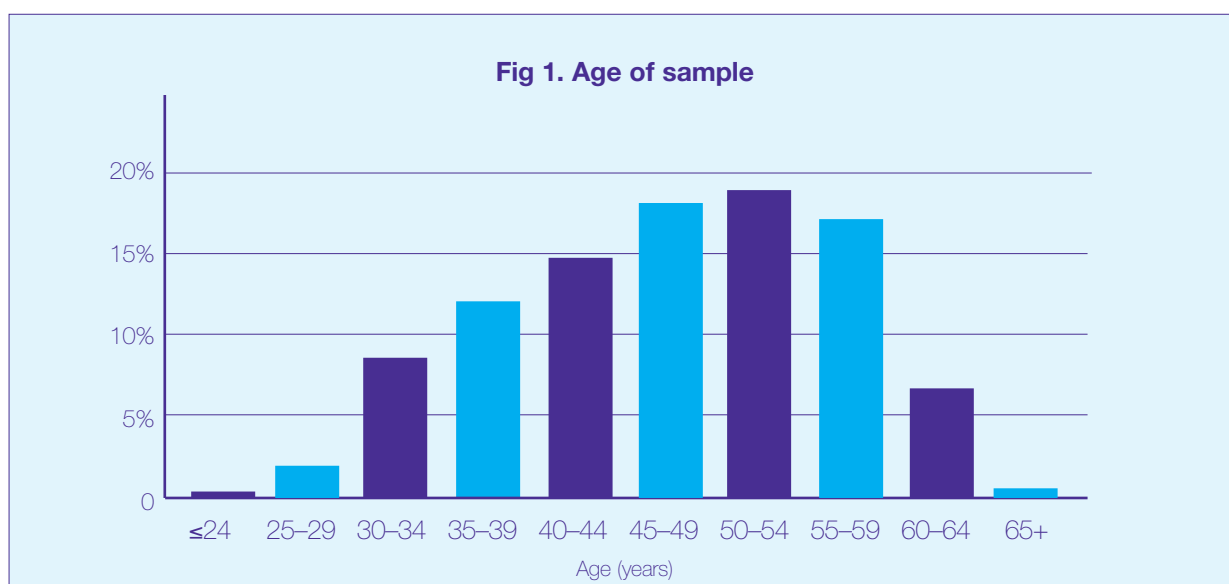
Results on a question-by-question basis can be found in Appendix 1 (see page 51). In the following section, where reference is made to individual questions the relevant question number is indicated in bold type in order to guide the reader to the relevant data.

Demographic data⁵

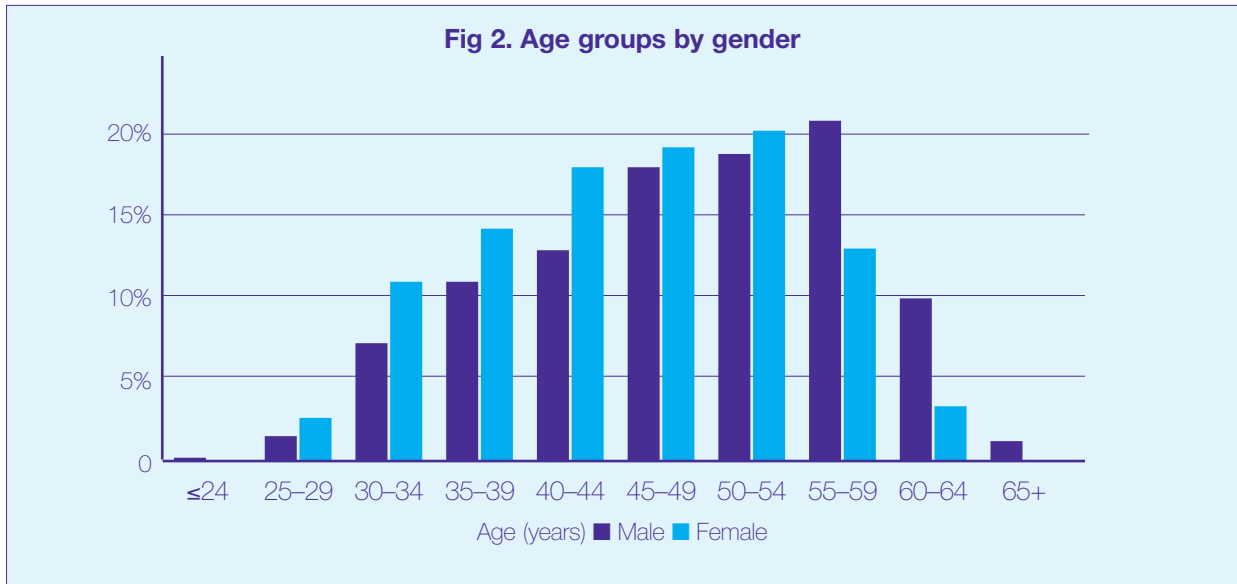
Fifty-five per cent of the respondents to the survey were male (Q1.1). Five per cent of the sample

classified themselves as belonging to an ethnic minority group (Q1.2). The percentage of respondents in each age band is shown in Fig. 1. As can be seen, the largest part of the sample was in the older age groups: 45–49 (18%), 50–54 (19%), and 55–59 (17%) (Q1.3). Analysis of age by gender (shown in Fig. 2, overleaf), indicates that female respondents are somewhat younger than males on average: 50% of male participants were 45 or older and 11% were 55 or more, whereas 46% of females were 45 or older and four per cent more than 55 years old.

The majority of respondents (59%) identified their job roles as ‘teaching-and-research’, 10% were ‘teaching-only’ and eight per cent were ‘research-only’. These groups are referred to as ‘academic’ in analyses presented in this report (in total representing 77% of the sample). Ten per cent of the sample identified themselves as administrators, the remainder being computer staff, librarians or ‘other’. These are grouped together as ‘academic-related’ in analyses (Q1.6a). Fifty-nine per cent of respondents from academic grades were male, whereas less than one-half (43%) of employees who were on academic-related grades were male.



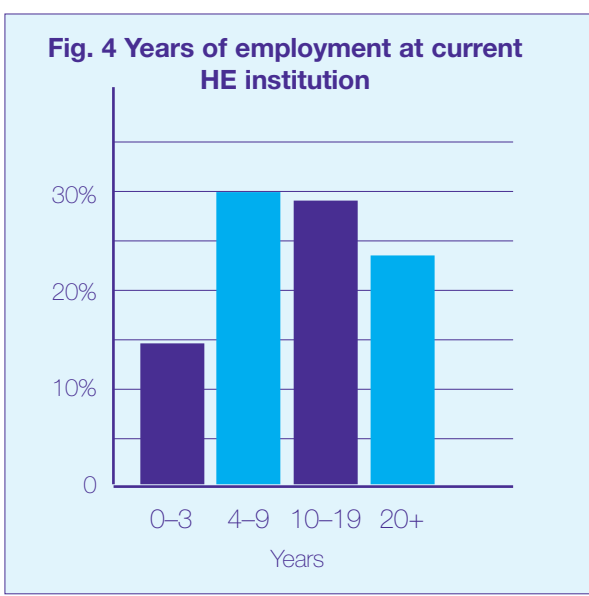
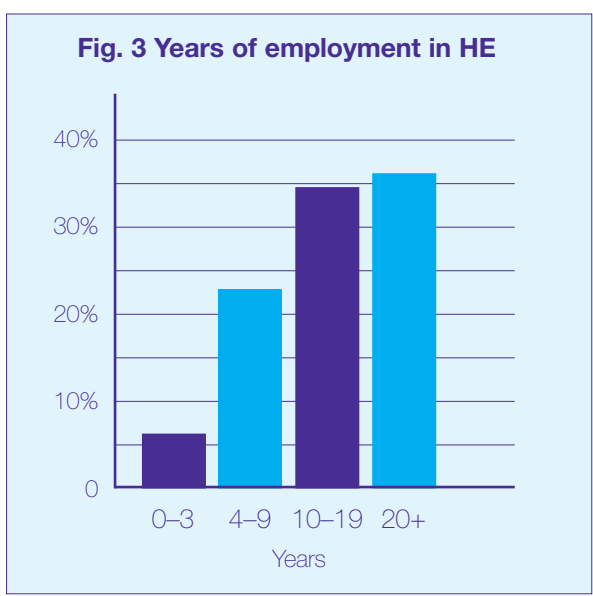
⁵ In representing results, the totals may not add up exactly to 100% due to rounding.



The sample represented 99 higher education institutions in the UK, with 75% of participants working in pre-1992 universities (Q1.4). Ninety per cent of the sample was employed on a full-time basis whereas 10% worked part-time (Q1.7); 47% of part-time employees indicated that they generally worked 25 hours or fewer per week. Eighty-two per cent of the sample had permanent contracts, 18% were employed on a temporary basis and one per cent

identified themselves as ‘casual’ employees (Q1.8). A higher proportion of females than males were on fixed-term contracts.

Figs. 3 and 4 illustrate the number of years of employment in higher education in the UK of the sample as a whole and the number of years employed in the current institution respectively. Seventy-one per cent of the sample had been employed in higher



education in the UK for more than nine years and 36% for 20 years or more (Q1.9), whereas 54% had been employed in their current HEI for 10 years or more and 25% for 20 years or more (Q1.10). For participants whose work is related to an academic discipline (Q1.6b), the single largest subject area reported was ‘Science, Engineering and Technology’ with 34% of the overall sample in this category; 23% were from ‘Social studies’, 22% from ‘Arts and Humanities’, and 11% from ‘Medicine, Dentistry and Veterinary’.

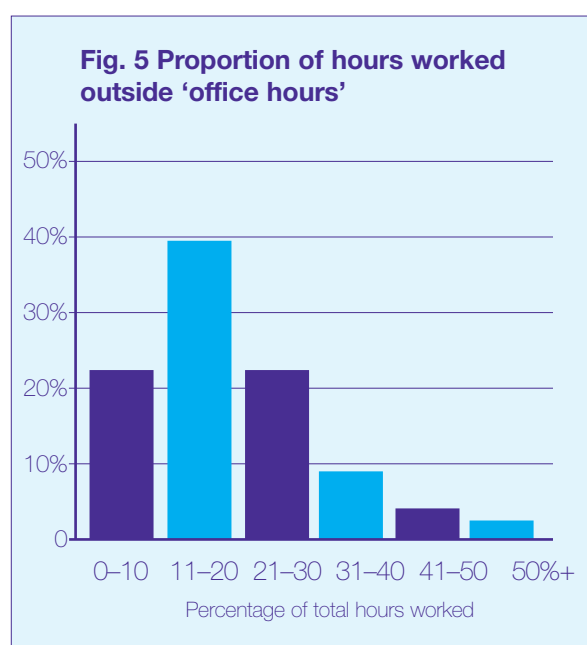
Respondents from academic-related grades were, in general, younger than those employed as teachers and/or researchers. Twenty per cent of academic-related employees were aged 50 or older, whereas 44% of academics were over 50. According to data recently produced by the Higher Education Statistics Agency (AUT, 2004), 28% of UK academics are aged 50 and above: the current sample is therefore rather older than the wider population of academic employees. The proportion of respondents from academic grades who were female (ie 41%) is similar to figures for the UK population of academics as a whole. Nineteen per cent of the surveyed academics were employed on a fixed-term basis; this is somewhat less than the current UK figure of 42%.

Working hours

Fifty-nine per cent of respondents who were employed on a full-time basis reported that they worked more than 45 hours in a typical week, whereas 21% indicated that they generally worked more than 55 hours (Q1.11). When comparing these findings with those of the 1998 survey, there is some indication that the length of average working weeks for university employees may have reduced. In the earlier study, 66% of the sample who worked on a full-time basis reported working more than 45 hours in a typical week, and 23% in excess of 55 hours. It should be emphasised, however, that more than one-half of respondents to the present study (54%) indicated that they were ‘dissatisfied’ with the hours that they worked, with 29% of these reporting that they were either ‘very’ or ‘extremely’ dissatisfied (Q5.7).

Respondents were invited to estimate the proportion of hours that they worked outside ‘office hours’ (ie outside 9 am to 5 pm during weekdays, and during weekends). As can be seen in Fig. 5, almost one-quarter of the sample (22%) indicated that up to 10% of their work was done during these times, with two-fifths maintaining that between 11 and 20% of their work was done then. For slightly less than one-third of the sample (31%) between 21 and 40% of their work was done during evenings and weekends, while seven per cent estimated that they did more than 40% of their work during these times.

Academics (particularly those who are involved in both teaching and research) were more likely than respondents who were academic-related to indicate that they worked outside office hours on a regular basis. Forty per cent of respondents from academic grades indicated that between 11 and 20% of their work was done during evenings and weekends, with almost 42% regularly undertaking over 20% of their work during these times. Respondents involved in teaching remarked that the increase in the student population had resulted in more evening lectures being timetabled, which extended the working day to a considerable degree, especially if they had commitments early in the day.



Comparisons with the findings of the 1998 survey suggests that working during evenings and weekends may have become less commonplace for academics: in the earlier study, more than one-half of teachers and researchers (60%) indicated that more than 20% of their work was done outside 'office hours'. Many respondents to the present survey, however, commented upon the 'long hours culture' that now prevailed in their institutions. It was commonly observed that it had become the norm in their institutions for no meal breaks to be taken, and for work to be done during evenings and weekends as an extension to the working day. One such respondent commented:

'Overwork has now become institutionalised: everyone expects it.'

Stress at work

In response to the statement 'I find my job stressful', 69% of respondents either agreed (43%) or strongly agreed (26%) whereas 13% disagreed (10%) or strongly disagreed (3%) (Q2.20). Academics were more likely than their academic-related counterparts to report that they found their jobs stressful (80% of respondents from academic grades agreed or strongly agreed compared with 64% of academic-related staff). The figures for the sample as a whole were strikingly similar to those reported in the 1998 survey, where 70% of participants indicated that they found their jobs stressful and 11% did not. Interestingly, 76% of respondents to the earlier survey had expected their jobs to become more stressful in future years. Although no evidence was found to suggest that academic and academic-related employees believe that their stress levels have risen in the ensuing period, they have not reduced either. Many respondents wrote about their personal experiences of occupational stress, and others commented upon the high levels of sickness absence in their institutions that they believed were due to stress. Further observations were made which highlighted the difficulties inherent in working with highly stressed line managers and colleagues who found it difficult to meet the demands placed on them.

Job demands

The 1998 survey highlighted a number of specific demands experienced by university employees in the UK. The current study aimed to revisit employees' perceptions of these demands in order to establish whether any changes had occurred in the intervening period. Representative quotes in response to open-ended questions that formed part of the survey are included in order to illustrate respondents' views. Where comparisons are made between groups, any differences reported are statistically significant, as indicated by the p statistic.

More than three-quarters of respondents (77%) indicated that their level of responsibility had increased over the last five years (Q2.35). This clearly resulted in an increased level of demand for many employees, as almost one-half of the sample (47%) disagreed or strongly disagreed that they found their workloads manageable (Q2.1). A significant majority of participants (65%) indicated that they had too much administrative paperwork (Q2.2). Academics were more likely than academic-related staff to maintain that they had an excessive amount of paperwork. Academics frequently wrote about the difficulties of trying to satisfy the demands of several, often conflicting, roles. One lecturer and researcher remarked:

'There is a constant expectation to achieve the impossible: deal with more students, find funding for our research, satisfy demands for quality, do our own administration. And we attempt to do it!'

Concerns were expressed by respondents from academic grades that increasing demands on their time had led to deteriorating levels of performance and effectiveness that, in turn, had a deleterious impact on their students: this is exemplified by only around one-third of academics (32%) maintaining that they had enough time to prepare for their classes (Q2.21), and less than one-quarter (24%) indicating that there was sufficient time available to deal effectively with students problems and queries (Q2.3).

The expansion of the student population is also likely to have contributed to perceptions of increased demand: 45% of respondents who were involved with teaching students agreed or strongly agreed that their classes were too large (Q2.22). Lecturers frequently commented that the ratio of students to staff in their institutions was too high to cover the teaching requirements adequately. Further observations related to the demands inherent in supporting students who were less academically able and teaching international students with poor English language skills.

Almost one respondent in 10 (nine per cent) reported having been the object of a formal complaint by a student or colleague during the preceding five years (Q2.38). The findings of the current survey suggest that being the target of complaints from students and/or colleagues may have a wide-ranging negative impact on employees: respondents who had been subjected to a formal complaint tended to perceive more stress, less support, and less job satisfaction (all $p=0.05$), and report more physical health complaints ($p=0.001$) than those who had not.

Academics who responded to this survey were almost unanimous (90%) in agreeing that the pressure to publish had increased significantly over the previous five years (Q2.26): only three per cent disagreed with this statement. Furthermore, a substantial majority of academics (79%) maintained that they felt under more pressure to increase their research activity than in former years (Q2.30), and a similar proportion (81%) reported feeling increased pressure to obtain research funding (Q2.31). Academics commented on the difficulties the faced when trying to obtain funding for their research in the face of increasing competition:

'We are all fighting to get a slice of the shrinking cake!'

Less than one-fifth (18%) of academics, however, considered that they had the necessary support to undertake scholarly work (Q2.23). Perceptions of increased pressure to increase research or consultancy activity, to obtain research funding and to publish may

have had a deleterious impact on research quality, as only 37% of respondents indicated that they were happy with the quality of their research (Q2.24). Several researchers revealed that the level of pressure to publish that they now experienced from their institutions had resulted in a deteriorating, rather than an enhanced, research output.

Respondents from academic and academic-related grades very commonly expressed negative perceptions of quality assessment procedures; many academics also observed that quality issues had come to dominate all aspects of their working lives. Seventy-nine per cent of the sample agreed (30%), or strongly agreed (49%) that there was now too much emphasis on quality assurance (Q2.28). Furthermore, less than one-quarter of respondents (23%) believed that quality assessment procedures had had a positive impact on the student experience, whereas 44% either disagreed or strongly disagreed with this statement (Q2.34). Fewer than one respondent in five (17%) expressed the belief that the Research Assessment Exercise (RAE) had had a positive impact on UK higher education in general (Q2.33) whereas, more specifically, approximately one-third of respondents (31%) maintained that the results of quality assessments had not fairly represented the work of their department or work group (Q2.29). Some believed that the introduction of more formalised quality assurance procedures had resulted in declining rather than increasing standards in their institutions, for example:

'Applying quality assurance criteria does not equate to good teaching or innovative research.'

On the whole, respondents from academic grades were less positive in their perceptions of quality assessment procedures and outcomes than those who were in academic-related posts: only 15% of academics believed that the RAE had had a positive impact on higher education compared with 23% of academic-related staff. Negative perceptions of quality assessment issues were frequently expressed in

response to the open-ended questions that formed part of this survey. Respondents particularly emphasised the demands inherent in complying with quality assurance procedures and the stress that this can engender; this was one of the most commonly mentioned sources of stress highlighted in responses to the open-ended questions.

Forty-one per cent of respondents agreed that their annual appraisal had fairly recognised their achievements and abilities (Q2.19); however, over one-third of the sample disagreed (18%) or strongly disagreed (17%) with this statement. More than one-half of the sample (58%) expressed the belief that communication within their organisation was ineffective (Q2.6). Over half of all respondents (54%) believed that they lacked opportunities for promotion (Q2.4), whereas more than one-third (37%) felt that their opportunities for training and personal development were inadequate (Q2.5). One lecturer and researcher wrote:

'In my institution, promotion can only be achieved by moving (or threatening to move) institutions, or for obtaining large grant incomes. There is no reward for loyalty and little reward for output.'

Job control

The 1998 survey highlighted general beliefs among employees that UK universities had become more managerial and autocratic than in former years; evidence was also provided that this was contributing to the pressures encountered by employees. Furthermore, the findings of the earlier study suggested that the relatively high levels of autonomy and control previously enjoyed by university employees had been eroded considerably over the preceding five years. Respondents who perceived reduced levels of control over their work tended to experience more psychological distress and less job satisfaction. As previous research – including the findings of the 1998 study – suggest that autonomy and control are of considerable importance to employees in the sector, the present survey aimed to

examine in greater detail the nature and outcomes of workplace control experienced by academic and academic-related staff. As job control is a multi-dimensional phenomenon, the extent and impact of different facets of control were assessed.

Not unsurprisingly considering the nature of the work, the majority of respondents (81%) agreed or strongly agreed that they were able to learn new things through their jobs (Q2.12). Relatively high levels of control over working methods were also found: three-quarters of the sample maintained that they had some choice in deciding how their job was done (Q2.10). The degree of task control (ie control over what they did at work) experienced by respondents was somewhat lower in that only just over three-fifths agreed (45%) or strongly agreed (16%) that they had a choice in deciding what to do in their jobs (Q2.9). Almost one-half of the sample (49%) was satisfied with their level of influence over decision making at work (Q2.11). The generally negative perceptions of quality assessment expressed above were re-emphasised in that 42% of respondents maintained that complying with the demands of quality assessment had compromised their professional independence (Q2.32). Very many comments were made relating to how complying with internal and external quality procedures was extremely onerous and had effectively 'de-professionalised' academics. One respondent commented:

'There is far too much useless monitoring, reporting, evaluating etc. of what we do in the name of accountability, value for money etc. We are trapped in a culture where professionals are not trusted to do their jobs conscientiously, but have to be forced to'.

The degree of control experienced by respondents over when and where their work was done was assessed in the work-life balance section of the questionnaire. A third of participants reported that they had at least a considerable degree of flexibility relating to their working hours and location (Q4.3).

There were no significant differences between academic and academic-related staff in overall levels of autonomy. Differences between these groups were found, however, in some specific aspects of job control. Respondents who were academic-related, on the whole, were more satisfied with their influence over decision-making processes in their institutions than those from the academic grades. Academics, however, had more control over where and when they worked than their academic-related colleagues.

Support from the working environment

More than one-half of respondents (56%) indicated that the level of administrative and technical support that they received was inadequate; only 30% were satisfied with this (Q2.17). One academic's comments exemplified this lack of satisfaction:

'In my institution, administrative staff are regarded as an overhead which should be kept to a minimum.'

In response to the statement 'I am happy with the level of support I obtain from my colleagues', the majority (57%) agreed or strongly agreed; less than one-quarter of the sample (24%) disagreed (Q2.14). Although some respondents highlighted inequity in the distribution of workload in their institutions, and others had experienced some friction between colleagues because of this, in general extremely positive comments were made relating to the quality of relationships with co-workers. One academic remarked:

'My colleagues are some of the best people I would ever wish to work with.'

A higher proportion of respondents (49%) was happy with the support they obtained from their immediate line managers than were not (33%) (Q2.15). Considerably less satisfaction was expressed with the degree of support received from senior managers: only 21% were happy with the support received from this source (Q2.16) whereas well over one-half of the sample (56%) indicated that they were not. Furthermore, almost three-quarters (73%) disagreed or strongly disagreed that management in their

institutions had become more sensitive to the needs of academic staff over the preceding five years (Q2.27). Worryingly, almost one respondent in five (18%) indicated that they had personally experienced bullying at work (Q2.18).

No significant differences were found between academic and academic-related staff in the reported incidence of bullying. In general, however, academic-related employees expressed greater satisfaction with their levels of administrative and technical support, and with the degree of support they received from their colleagues. Many academics commented on the lack of support for even the most basic tasks, which was thought to result in unnecessary demands on their time. One lecturer remarked:

'Really, I am just a very expensive clerical worker.'

A professor commented on the same theme:

'We can spend up to eight hours a week photocopying, and have to arrange rooms for our lectures. We should be doing 5 research and teaching rather than jobs like these.'*

Academics also reflected upon the difficulties inherent in keeping up with the demands of new technology – such as website design and maintenance – in the face of reduced levels of technical support.

Although no significant differences were observed in levels of support received from immediate line managers, respondents from the academic-related grades tended to express more satisfaction than academics with the support they received from more senior management at their institutions.

Job satisfaction

General aspects

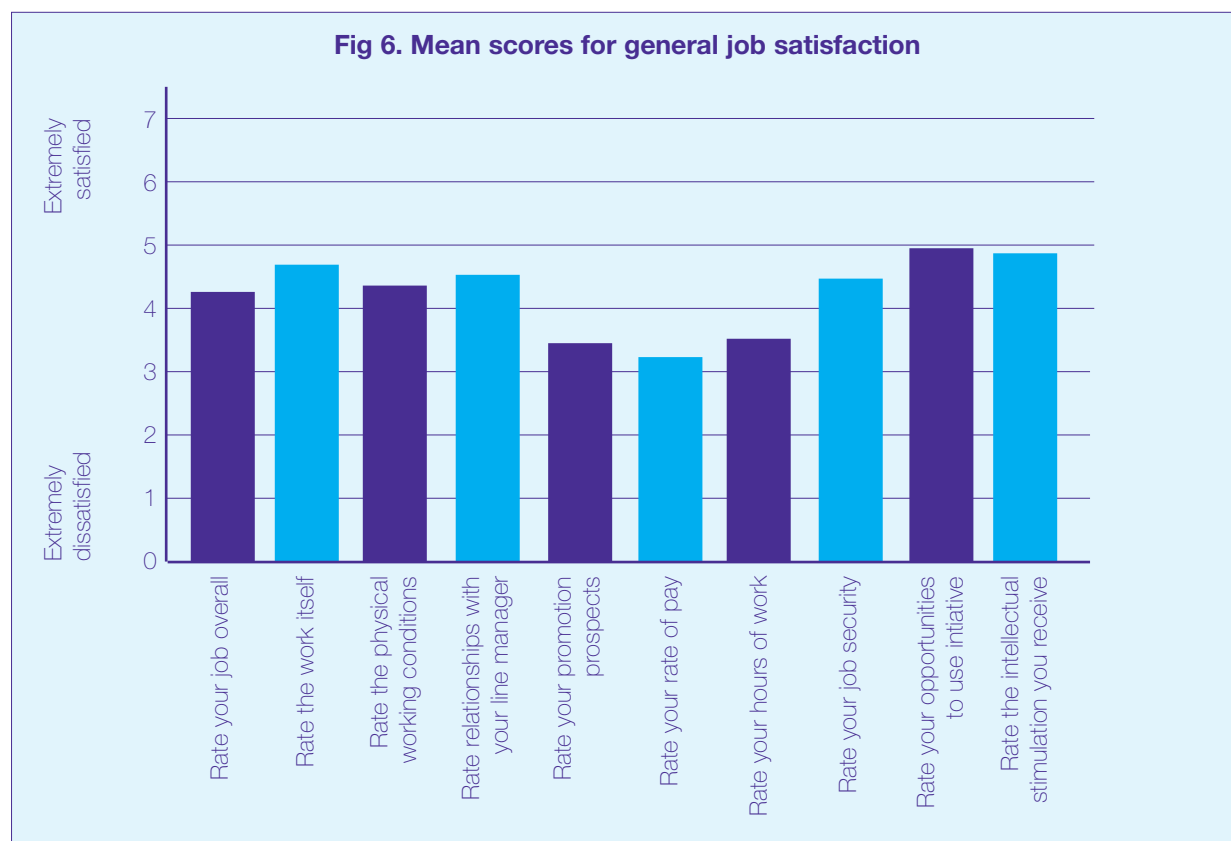
Fig. 6 (overleaf) shows levels of satisfaction with several general aspects of work. Scores of four and above indicate that respondents are more satisfied than dissatisfied with each feature. Over one-half of the sample (58%) were at least moderately satisfied

with their jobs in general (Q5.1). More specifically, respondents were more satisfied than dissatisfied with their physical working conditions (59%) (Q5.3) and with relationships with their immediate line managers (63%) (Q5.4). Almost three-quarters of the sample (72%) expressed satisfaction with the degree of intellectual stimulation they experienced from their work (Q5.10) and with opportunities to use initiative (75%) (Q5.9). Interestingly, no significant difference was found between academic and academic-related employees in the degree of intellectual stimulation that they considered they gained from their work. Sixty-one per cent were at least moderately satisfied with their job security (Q5.8), but over one-quarter of the sample maintained they were moderately (eight per cent), very (eight per cent), or extremely (11%) dissatisfied with this aspect of their jobs.

As can be seen from Fig. 6, levels of satisfaction were somewhat lower with working hours (Q5.7) and

opportunities for promotion (Q5.5): more than one half of respondents (54%) were dissatisfied with their hours of work and a similar proportion (53%) with their promotion prospects. Sixty-four per cent of respondents indicated that they were moderately (24%), very (20%), or extremely (20%) dissatisfied with their rates of pay (Q5.6), whereas only 13% were very or extremely satisfied.

Academic-related staff, on average, expressed more satisfaction with their jobs overall; they were also more satisfied than their colleagues from the academic grades with specific aspects of their work such as physical working conditions, relationships with line management, hours of work, rate of pay and job security. Sixty-nine per cent of academics expressed at least moderate levels of dissatisfaction with their rates of pay; of these, 23% were extremely dissatisfied and 22% very dissatisfied. Many academics who were working on short-term contracts commented upon the insecure and



generally unsatisfactory nature of such posts. Respondents described having to move frequently and the difficulties inherent in short-term contract work. One researcher revealed that:

‘At any one time I might have as many as eleven short-term contracts running concurrently’.

Job satisfaction relating to academic work

Fig. 7 below shows levels of satisfaction with specific aspects of academic work. As with general job satisfaction, scores of four or more suggest some degree of satisfaction with each feature. As can be seen, academics expressed at least moderate levels of satisfaction with the courses they teach (Q5.11), the students (Q5.12) and their academic freedom (Q5.14). Particularly high levels of satisfaction were reported with the teaching and supervision of students: 37% were moderately satisfied, 28% very satisfied and seven per cent extremely satisfied with this aspect of work. Furthermore, over three-quarters of academics who responded to this survey (76%) were at least moderately satisfied with the courses

they taught. In contrast, however, only just over one-half of academics (54%) expressed satisfaction with the quality of their research, whereas almost one-fifth (19%) were either very or extremely dissatisfied (Q5.13). Academics frequently commented upon the enjoyment and satisfaction they gained from their work, often in the face of high levels of demand, stress and strain. Some, however, remarked that their levels of job satisfaction had been eroded in recent years and that many of their colleagues felt the same, for example:

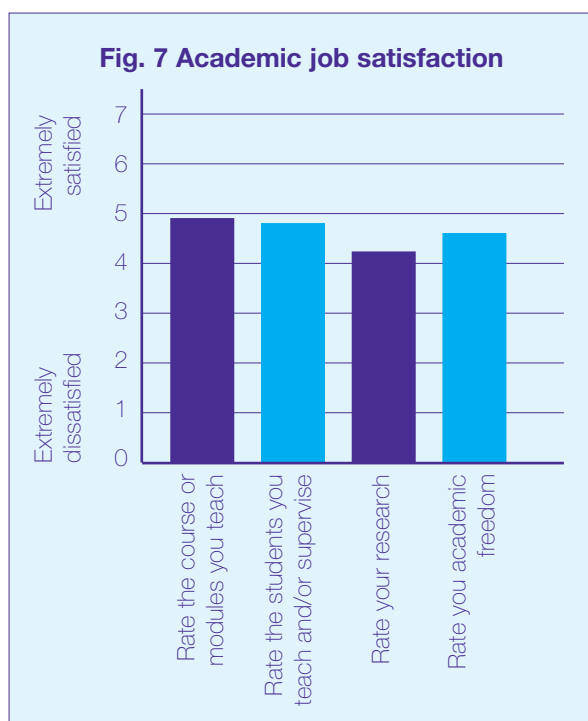
‘No one seems to enjoy their work any more. I used to love teaching – now it is just what I do.’

Job involvement

Job involvement represents a state of identification with one’s work. Levels of job involvement for the sample as a whole are shown in Q5.15–5.19. Although a similar proportion of academic and academic-related respondents indicated that their work was a very important part of their lives (90 and 85%, respectively), academics appear to be more involved in their jobs. Thirty-two per cent of teaching and/or research staff indicated that the most important things that happened to them involved their work, compared with 20% of non-academics, whereas 41% of academics reported that most of their interests are centred around their work, compared with 23% of respondents from the non-academic grades. As with job satisfaction (discussed above), academics frequently remarked upon their commitment to – and involvement in – their work, for example:

‘I could cut down and say no to more work, but my commitment to my subject keeps me motivated.’

Job involvement can be a positive feature as it can signify absorption in, and enjoyment of, work tasks; however, ‘over-involvement’ could be considered a vulnerability factor as it can exacerbate the relationship between job stressors and employee health (Frone *et al*, 1995). Employees who are over-



involved in their work might also experience difficulties in maintaining a clear boundary between work and non-work activities. Accordingly, the findings of this survey suggest that job involvement might be a positive and a negative factor for academics, as those who were more involved in their work not only had higher levels of job satisfaction with academic aspects of their work, but also reported lower levels of psychological and physical health and a poorer work–life balance. Commenting on their involvement in their work, several respondents revealed that they had been forced psychologically to distance themselves from their work in order to protect their well-being and their work–life balance. One academic exemplified this:

‘The only way to be less stressed is not to care about what is happening to the state of current HE policy, not to care about students or education, and play the research game for your own self interest.’

Another lecturer and researcher commented :

‘I am improving my work–life balance simply by being driven on a daily basis further towards just not caring any more about what happens at work. I still do my job, but I am feeling increasingly detached from it.’

Status and job security

More than three-quarters of respondents (77%) maintained that the status of academic staff had declined in this country over the preceding five years (Q2.25). In their responses to the open-ended questions, several wrote about the poor morale that they believed was endemic in the profession and the poor public perception of academics and the university sector as a whole.

In terms of job security, 56% of the sample indicated that there had been redundancies or job cuts in their institutions (Q2.36), and one-quarter (25%) felt under personal threat of redundancy (Q2.37). Respondents who were involved in either teaching or research were

more likely to report feeling under threat of redundancy than those whose work combined teaching and research. Academics from ‘research-only’ posts reported significantly higher levels of job insecurity than any other group. Unsurprisingly, respondents who were on fixed-term contracts were more likely than permanent staff to feel under threat of redundancy, and to express more dissatisfaction with their job security. One contract researcher remarked:

‘I think my main source of stress is lack of security. If I knew I had a permanent job I would feel like a valued member of staff and would be able to do my work without constantly feeling ‘hard done by.’

Intentions to leave

Forty-seven per cent of respondents indicated that they had seriously considered leaving higher education other than through early retirement (Q2.40). A higher proportion of research-only staff than any other group indicated that they wished to leave the sector. The most commonly expressed reasons for wishing to leave were:

- Job insecurity
- Job stress
- Work overload and conflicting job roles
- Poor management and increased bureaucracy
- Quality demands
- Poor prospects for promotion
- Long hours
- Poor work–life balance

In general, respondents highlighted considerable inequality between the HE sector, and industry and private consultancy in terms of salary, promotion prospects and working conditions. Opinions were frequently expressed that working life outside the sector was less demanding, more supportive and more rewarding. One academic wrote:

‘I work in a field where many of the students I teach are far better paid than I am’.

Many indicated that they desired to leave higher education, as the level of pay they received did not correspond with their levels of responsibility, the demands made on them and the degree of stress they experienced. Respondents frequently reflected upon the change of culture recently experienced in the sector towards a more industrial model. As one senior academic commented:

'I have put up with the poor pay because the freedom to pursue my own research and teaching interests compensated to some extent. If universities want to be corporate entities and to constantly monitor us and make us accountable for everything we do, they will have to pay us accordingly.'

For academics, the pressures of trying to balance administrative, research and teaching commitments in the time available without the necessary support structures were very frequently highlighted as reasons for wishing to leave the sector. The administrative burden placed on academics in order to satisfy the demands of various quality assurance bodies was also commonly cited, for example:

'Every week brings a new bureaucratic outrage – the job no longer feels worthwhile.'

And:

'My stress is not from the academic pressures I face – these are positive and motivating. I am leaving because of the bureaucratic impositions within HE which seem to have lost touch with the educational and humanistic aspirations of education.'

Respondents frequently indicated that they wished to leave the sector because of lack of respect and recognition for their efforts. One academic remarked:

'It is an increasingly unpleasant and thankless environment in which to spend so much of my time.'

And another:

'I am leaving because I want a job where I feel valued.'

Some indicated that they wished to leave as a result of bullying from colleagues and managers that had not been resolved to their satisfaction.

The negative impact of work on health and family life was frequently provided as a reason for wishing to leave the sector: for a number of respondents, the job was not thought to be conducive to good health and family life. A senior lecturer remarked:

'I am leaving as I want to do something more 9–5 where work is not constantly on my mind and I can have a family life.'

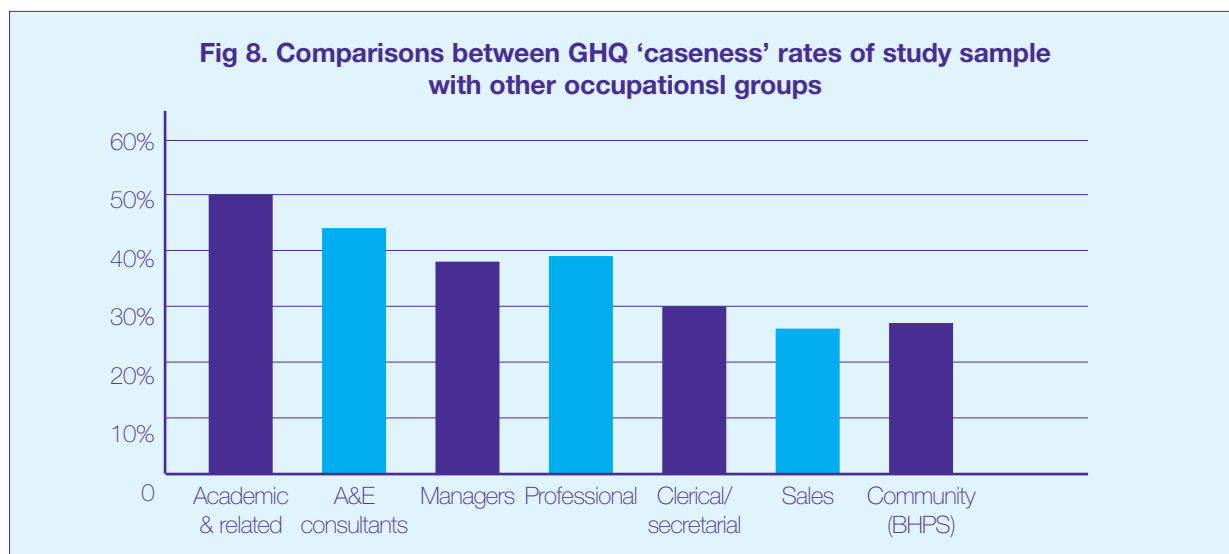
Perhaps, more fundamentally, lack of confidence in the direction that HE is taking was also cited as a reason to leave the sector, one lecturer exemplified this viewpoint:

'I have lost my faith in academia as a worthwhile career in its current form.'

Some respondents remarked that they had no wish to leave HE personally, but were increasingly finding that capable and highly valued colleagues were leaving or retiring early due to the demands of the job and a wish to regain a work–life balance.

Psychological well-being

The results of this survey suggest that psychological well-being in university employees in the UK may be poor. In 1998, 53% of respondents achieved scores on the GHQ-12 of three or above, which is suggestive of borderline levels of psychological distress (known as 'caseness'; Goldberg & Williams, 1988). Fifty per cent of the current sample of academic and academic-related employees achieved scores of three or above. More specifically, 46% of respondents reported that they had recently been feeling constantly under strain, and 36% revealed that they were currently experiencing a higher level of unhappiness and depression than was customary for



them. One third (33%) indicated that they had recently lost more sleep than usual over worry.

There was no statistically significant difference between the overall level of psychological distress found in the 1998 survey and that found in the present one. Furthermore, no differences were found between the levels of psychological distress reported by male and female participants or between respondents who are academics and those who were academic-related. Fig. 8 shows the GHQ caseness rate found in the current study (ie 50%), in comparison with lower levels reported by several professional groups and the latest wave of the British Household Panel Survey ($n=17,479$; Taylor *et al*, 2004).⁶ As can be seen, employees in UK HEIs compare unfavourably with other professions and with the general population. The level of psychological distress found in the current sample is also high in comparison with a recent survey of over 8,000 Australian university employees conducted by Winefield *et al* (2003) that also utilised the GHQ-12. Winefield and colleagues report caseness levels of 43% for academics, and 37% for what they term 'university general staff'.

Physical health symptoms

The physical health of participants was assessed by an inventory of 18 common ailments. There appeared to

be a fairly high level of minor symptoms among the workforce, with only eight per cent of respondents claiming to have experienced none of these symptoms during the preceding 30 days. Table 1 shows the percentage of respondents who reported having experienced each symptom during this time. As can be seen, 81% of respondents reported experiencing tiredness and 56% headaches. Women were more

Table 1: Health symptoms reported by respondents, ranked by percentage

Symptom	% of sample who reported symptom
Tiredness	81
Headache	56
Backache	42
Trouble sleeping	41
Eyestrain	39
Stomach ache	30
Indigestion	28
Diarrhoea	19
Dizziness	19
Heart pounding	19
Infection	18
Skin rash	18
Short of breath	13
Constipation	11
Loss of appetite	10
Stomach cramps	9
Chest pain	8
Fever	6

⁶ In all these studies, caseness levels were determined by the three or more cut-off point.

likely to experience these symptoms than their male colleagues. Some symptoms experienced by academic and academic-related employees, such as headaches, back pain and eye strain, may be associated with tension and particular working practices (such as excessive use of computers in un-ergonomically designed work stations) that may need attention.

Respondents frequently referred to high levels of sickness absence in their institutions; many highlighted considerable difficulties in providing cover for colleagues who were on sickness and maternity leave, as staffing levels in their departments were so low. As two lecturers remarked:

'I dare not take time off sick as I know that my colleagues will be expected to cover for me and they are already stretched too much.'

'When someone in my department goes on maternity leave their responsibilities are shared out among colleagues causing resentment, guilt and overwork. This is very bad practice.'

Effort–reward imbalance

As people expect reciprocity in social and work relationships, a lack of balance between the efforts that people put in (in terms of work demands and obligations) and the rewards they receive (in terms of such factors as salary, status or promotion) is likely to lead to strain (Siegrist, 1996). Although this theory applies to a range of jobs, there is evidence that an imbalance between efforts and rewards is likely to be higher among service occupations and the professions (Siegrist, 1996). Based on the findings of the 1998 survey described above, it was thought that the effort–reward imbalance model was particularly appropriate for employees in higher education. In this survey, efforts and rewards were both assessed by items that described a particular experience at work where people were: (a) asked to rate whether or not they have had this particular experience; and (b) if so, to rate the extent of distress they feel in relation to the experience. The measure produces one overall score for effort based on five items measuring workload,

responsibility, pressure, frequent disturbances and increasing demands. Rewards measured used in this study assessed two dimensions, financial/status related rewards (based on four items assessing perceived adequacy of income and work prospects) and esteem rewards (based on four items concerning perceived adequacy of respect and support).

In the present sample, the overall mean score for effort suggested a fairly low degree of distress due to the efforts that respondents put in and reasonable perceptions of reward. This however seems to be due to the fact that few showed high levels of distress (**Q2.42**): for example, 12–13% scored a mean that indicated consistent use of 'I am distressed' or 'I am very distressed' due to high efforts. Some level of distress relating to efforts is, however, widespread. There were some differences between academic and academic-related staff in terms of their perceptions of efforts and rewards in their work. Academics were slightly more inclined than academic related staff to perceive distress due to the effort that they put in to their jobs (with 65% feeling some level of distress as opposed to 54% of academic-related staff). Academics were also more likely to be distressed due to lack of financial and esteem rewards.

Distress due to efforts and lack of rewards was found to be significantly related to physical symptoms for academic and academic related respondents; that is, those who perceived high levels of efforts and/or low rewards reported more symptoms (all correlations significant at $p=0.001$). Multiple regression was used in order to examine the role played by efforts and rewards in predicting symptoms. Both efforts and lack of financial rewards were the main factors in predicting physical symptoms. Lack of esteem rewards, for example in the form of respect given by managers, though causing some distress, seemed less strongly associated with symptoms.

Work–life balance

Where do employees work?

During term time, respondents reported that they did an average of 23% of their work at home (though the

standard deviation of 17% shows that there was wide variation between respondents in this practice) (Q3.1). It should be noted, however, that when the means of the reported percentages of work conducted at home, at work, and elsewhere are added, the total comes to 109% (perhaps indicating an over-estimation of work done). On the whole, academics reported that they did a higher proportion of their work at home than respondents from academic-related grades (25% and 13% respectively). Individuals from both groups indicated, however, that they would prefer to do slightly more work at home than they did at present: academics would like to do 30% of their overall workload at home whereas academic-related staff wished to do 19% (Q3.2). The attraction of working at home is likely to be due to the fact that respondents are rarely able to work without interruption in their places of work: 18% of the sample as a whole indicated that they could never work without interruption at work, and a further 45% maintained that they could only rarely do so (Q3.3). When working at home, 23% of respondents indicated that they were always able to work without interruption, and a further 54% they frequently could (Q3.4).

Why do people work at home?

Respondents were asked to describe the type of work they were most likely to do at home, and why they did these tasks there rather than their places of work. By far the most common reason provided for working at home reflected the findings reported above – the ability to work without interruption. Respondents frequently remarked that they had peace and quiet when they worked at home, as they were not likely to be disturbed or distracted by competing demands from students, colleagues and administrators. One academic wrote:

‘(My home) is the only place I have quality time to think and avoid being interrupted and distracted by endless demands, enquiries, telephone calls, e-mails etc.’

Some respondents reported that they worked in shared or open-plan offices that were frequently noisy and not conducive to concentration or creativity. One lecturer and researcher revealed that he worked in an open plan office that accommodated approximately 80 staff and described the difficulties he experienced with this situation. Others, who were more physically remote from their colleagues, indicated that their offices had poor sound insulation that allowed noise from adjacent offices to filter through and they could hear everything their colleagues said or did.

Respondents maintained that working from home enabled them to use their time more efficiently and effectively. Academics, in particular, frequently observed that they were more creative and productive when they worked there rather than in their institutions. Respondents also revealed that they worked from home in an attempt to integrate their work into their non-working lives more successfully. Some remarked that this practice helped them ‘juggle’ the demands of work and family and other commitments. Some indicated that they worked at home only occasionally, however, as they would rather work late in their institutions than bring work home, in order to maintain a physical boundary between the two domains. Others maintained that, when working during evenings and weekends, they preferred to work at home in order to spend more time with their families. Two academics exemplified this view:

‘At least I am home even though I am still working’.

‘I work at home so that the family sees me occasionally. It also means that I get my dinner before 10 pm!’

Further reasons for working at home cited by respondents were saving time and money by not commuting to work.

Some respondents indicated that they had obtained equipment, frequently at their own expense, to

enable them to work more efficiently at home: a number of these observed that they had better computers and communication facilities (as well as more congenial surroundings) at home than they did at their places of work, which added to the attraction of working at home.

A minority of respondents was employed to work from home and reported that they had no office facilities in the institutions to which they were affiliated. For those that were not expected to work exclusively from home, just under one-half of academics (42%) indicated that they did at least 20% of their overall workload at home, whereas 26% reported doing more than one-third of their work there. In general, academic-related staff worked from home less frequently: only 15% indicated that they did at least 20% of their total workload in their home environments.

What do people do when they work at home?

Considerable variation was found in the type of work that employees did at home. A minority of respondents indicated that they worked from home only occasionally in order to complete specific tasks to deadline. The majority of academics who responded to this survey, however, not only worked from home during office hours – working at home during evenings and weekends appeared to be a customary way that they coped with the volume of work and the diversity of tasks required. As one lecturer wrote:

‘When one’s workload is 25% greater than the normal working week there is little option but to work evenings and weekends.’

Academics commonly revealed that, when working in their institutions, they were only able to do basic administrative duties, attend meetings, and teach and supervise students. Other tasks that were fundamental to academic work, such as reading, writing books and reports, teaching preparation and marking were, often exclusively, done at home. Due

to the constant interruptions experienced in their places of work, respondents frequently mentioned that they were forced to do any tasks that required sustained concentration and creativity at home. Activities relating to research were particularly likely to be done at home, such as writing grant applications, literature searches and research planning, data analysis and writing papers.

Respondents reported different preferences and practices in the extent to which they conducted work-related communications from home. Twenty-two per cent indicated that they never accessed work e-mail at home, whereas 43% checked it at least once a day (Q3.5). Just over one respondent in 10 (11%), however, indicated that they accessed their work e-mail more than five times a day. Eleven per cent of respondents never made work-related phone calls at home, whereas 19% indicated that they did so at least once a day (Q3.6).

The family context

Clearly, work–life balance is a requirement for all academic and academic-related employees whether they live alone or with family; however, information provided on cohabittees and children provided some insight into the extent to which the needs of partners and dependants formed part of the ‘balancing act’. Only 17% of respondents to this survey indicated that they lived alone; 77% lived with a spouse or partner, and one per cent live with elderly relatives (Q4.1). Ten per cent of the sample indicated that they share their household with under schoolage children, 27% with schoolage children, and 12% with children who are over schoolage. It is evident that the non-work demands for many of respondents are likely to be considerable.

Having a partner who was also employed in the education sector might increase the likelihood of work ‘spilling over’ into the home environment. Couples who shared an occupation might be more likely to discuss work matters or concerns in the home environment than those who did not. Of the

respondents who indicated that they had a spouse or partner, almost one-half (45%) reported that their partners worked in the education sector in some capacity. Almost one respondent in five (19%) indicated that their partners worked as academics, and a further 26% reported that their partners worked in higher education in academic-related work, in further education or teaching, or related work (Q4.2). Some revealed that having a partner who worked in the sector was useful, because the flexibility both partners enjoyed allowed them more effectively to balance the demands of family life – in particular, childcare. These respondents, however, also described the difficulties inherent in having a partner who was also experiencing considerable demands from his or her work and who was expected to work during evenings and weekends. One respondent whose marital partner was also her research partner described the problems they had in ‘ring-fencing’ time for non-work activities and family life.

Are home and work separate?

There was considerable divergence among respondents in the extent of integration they experienced between their work and their home lives (Q4.4). While 11% indicated that they kept the two domains virtually separate, one-fifth of the sample maintained that, for them, the two domains were practically indistinct. On average, however, the majority of respondents had some degree of integration between their home and work lives. Although some respondents to the open-ended questions indicated that their absorption in their subjects led to their work and home lives being almost fully integrated through choice, the majority would like the two domains to be more detached (Q4.5). Almost one-half of the sample (44%) expressed a desire to have their work and home lives completely separate; only two per cent would like no separation at all. Responses to a subsequent question that asked respondents to indicate the extent to which they had clear boundaries between home and work (Q4.8) painted a similar picture: 23% indicated that they had no boundary between their work and home

lives, whereas 15% maintained that the boundary between the two domains was very clear indeed.

Respondents were asked to describe any strategies that they used to minimise conflict between work and home, and maximise work–life balance. A wide range of strategies was reported. Some respondents emphasised the need for forward planning and effective time management in order to find time for family and leisure in the face of considerable work demands. For example:

‘I plan which evenings and weekends I will work with my partner and devote some evenings to spending quality time with my family.’

‘I try to schedule things like holidays, the gym and social events well in advance and commit not to cancel.’

Individuals frequently indicated that they made a considerable effort to maintain a firm boundary between work and home. Some revealed that they accomplished this by ensuring that work demands were kept in perspective and were not allowed to spill over into family life. One academic wrote:

‘Priority for my attention is work during ‘normal’ working hours and home during other times.’

And another:

‘I live to the principle of what matters. The children come first, then my partner and myself, then other people I am close to, and after that comes work.’

Other respondents indicated that they balanced their work and home lives by adopting various strategies, such as working late in the evenings in order to keep weekends free, working early in the morning in order to spend evenings with their children, or resolving to keep weekends (or one day at the weekend at least) ‘work-free zones’. Some remarked on the personal cost of this practice, for example:

'I make every effort to keep weekends free from work although this means I regularly work for 12 hours on a weekday.'

Attempting to restrict work to normal office hours appeared to be antithetical to the prevailing workplace culture for many respondents, and likely to jeopardise their career prospects as well as their well-being. Two academics remarked on this:

'I manage to obtain a balance by being very firm with myself, but in doing so I am going against the norm in my office which creates this awful stress and tension for me.'

'I have sacrificed my promotion prospects as the only time I could do research is during evenings and weekends and I am not prepared to spend so much time working.'

Some respondents maintained that they tried to minimise their workloads by refusing to take on additional work tasks, failing to meet non-urgent deadlines and reducing their personal standards of performance. One senior lecturer wrote:

'Recently I have adopted an 'it can't be done' strategy because the workload is so great. Something has to be left out and I don't want it to be my family.'

The costs to self esteem, professional identity and relationships with colleagues of putting in what might be considered a 'second-rate' performance and refusing to do certain tasks was, however, also highlighted.

Some individuals believed that reading work e-mails at home could be a valuable way of maintaining contact with their institutions that allowed them to work more effectively from home. Others indicated, however, that they had resisted installing a networked computer and/or internet or fax facilities at home in an attempt to maintain a firm boundary between the work and non-work domains.

Some respondents were clearly successful in making time available for family and leisure activities. Others commented on the difficulties they had in trying to manage the worry and anxiety engendered by work demands when they were not physically engaged in work and trying to enjoy their leisure time. One respondent exemplified this problem:

'I try to switch off as much as possible but work nags away; you always feel like you should be doing more. You know that work is piling up waiting for you.'

The value of spending quality time with partners and friends as a way of maximising work-life balance was also highlighted. Others described using diverse strategies such as exercise, hobbies, holidays and weekends away, counselling and alternative therapies. A number of respondents indicated that they attempt to 'manage' the interface between the work and non-work domains by drinking alcohol or using other avoidance coping strategies. Some also revealed that, in desperation, they had taken sick leave in order to give themselves a breathing space to catch up with work demands. Several academics remarked that they had been forced formally to reduce their contracted hours and move to a part-time position in an attempt to gain an acceptable balance between their work and home lives. One female researcher indicated that moving to a 0.6 position had resulted in greater flexibility, although she still did what would be considered a full-time job and had to suffer the financial consequences of moving to a fractional post. Some older respondents remarked that they had given up trying to achieve a work-life balance as it was not possible, and anticipated redressing the balance during their retirement.

Employer expectations

The degree of control people have over when and where they work is likely to have a considerable impact on the extent to which they are able to achieve an acceptable balance between their work and home lives. **Q4.3** asked respondents to indicate whether they were expected by their employers to be in their place

of work on a 9–5 basis from Monday to Friday, or if they could decide for themselves where and when to work. Three-quarters of the sample maintained that they had at least some latitude over where and when they worked, with just over one-third (33%) reporting a considerable degree of control over this. There was a big difference, however, between academic and academic-related staff in responses to this question, with 57% of academic-related staff being generally expected to work in their work place between 9am and 5pm compared with only 14% of academic staff.

Do employers help employees to achieve a balance?

When asked to rate the extent to which their institution helped employees to achieve a balance between work and family responsibilities, 43% of respondents said ‘not at all’ (Q4.6). A minority maintained that their employers helped with this ‘quite a bit’ (15%), or ‘very much’ (3%). Levels of satisfaction with the manner in which institutions addressed the work and family needs of employees was similarly low with 41% indicating that they were not at all satisfied, and a minority saying they were satisfied ‘quite a bit’ (18%) or ‘very much’ (four per cent) (Q4.7).

What help do employers provide?

Respondents were asked to describe any benefit or working condition provided by their institutions designed to help them balance their work and non-work demands. The most commonly cited benefit was flexibility: this was generally characterised by the ability to work flexible hours, and work from home during office hours. Some respondents from academic grades expressed the belief that the flexibility they experienced compensated to some degree for the heavy and diverse demands of their jobs. For example:

‘I really appreciate the flexible hours academic life permits despite the time pressures and stress.’

Some variation was found in the degree of flexibility that UK higher education institutions allowed their

employees. Few employees seemed to be aware of any formal policies regarding flexible working that exist, although several respondents reported that their institutions were considering adopting them or were currently trialling them for certain employees. Many respondents reported having no ‘fixed’ working hours, and being able to work where they wished – provided scheduled lectures and seminars were delivered and deadlines were met. Others maintained, however, that they were able to work from home infrequently, only at certain times (eg outside teaching weeks), and/or with management approval. One lecturer and researcher who worked under such conditions commented:

‘I can ask my line manager if I can work at home if any particular project comes up, but I try to minimise these requests because I am expected to be in work during office hours’.

Analysis of responses to this survey suggests that the ability to work from home is, to a large extent, dependent upon individual line managers’ policies and practices and the prevailing institutional culture. Some respondents remarked that employees who indicated that they were working from home were generally considered to be slacking. Respondents frequently described sympathetic line managers, however, ‘who appreciate that life outside work needs attention’ and who were supportive when domestic emergencies arose.

The notion of flexible working was not universally popular; some ambivalence was expressed about its benefits to employees. Academics, in particular, frequently indicated that they customarily worked evenings and weekends as well as (rather than instead of) office hours – as they were expected to be available on a 9–5 basis for teaching and to fulfil administrative demands. One lecturer remarked:

‘In theory I can work flexible hours, but this is not true in reality due to the type of work I do and my workload’.

Some academics mentioned that although they were expected to be available during normal office hours, there was no official policy for time off 'in lieu' if they had lectures during the evening or attended open days at weekends. Even if some form of time compensation were available, respondents commonly indicated that it would be impossible to avail themselves of this due to pressures of work.

Other facilities provided by HE institutions in order to help employees with work-life balance were highlighted, such as stress management workshops and gym and sports facilities. Some respondents mentioned that their institutions had provided them with equipment, such as computers, faxes and printers, to enable them to work from home. The provision of computer networking, e-mail access and IT support was also commonly highlighted as ways that institutions helped their employees facilitate a balance between work and non-work life.

Some observations were made that many of the facilities provided by institutions to help them with work-life balance merely made it easier for them to work longer hours. Many respondents, however, maintained that their institutions did nothing to help them balance the demands of their work and non-work lives. For example:

'I am not aware of any such benefit or condition. The culture in my institution is of working hard and not acknowledging that this is done at the expense of extremely long working hours.'

Emphasising the need for a change of culture in the sector, one academic wrote:

'Higher education employers must create a culture where a proper work-life balance is regarded as desirable and an aid to productivity rather than an obstacle.'

Does work meet employee and family needs?

Despite the general perception that employers fail to provide support, most respondents felt that their

working schedules (and the degree of flexibility in these schedules) met their own needs fairly well (Q4.9). Sixty-six per cent indicated that their needs were met by their working schedules 'quite a bit' (47%), or 'very much so' (19%). Only a small minority (four per cent) felt that their needs were not met at all. In terms of meeting partners' needs, however, respondents were slightly less positive (Q4.10): 41% of the sample felt that their working schedules met their partners' needs 'quite a bit', 14% 'very much so' and 10% 'not at all'. For the minority who answered the question relating to the needs of children and other dependants ($n=505$), responses were similar to those relating to partners' needs (Q4.11). Forty-two per cent maintained that their working schedules met their children's needs 'quite a bit' and 13% 'very much so', whereas one respondent in 10 maintained that the needs of their children were not met at all.

In general, however, HEIs and individual line managers were perceived as sympathetic to the needs of parents of young children. Respondents frequently highlighted practices such as sympathetic timetabling for parents, flexible working hours to accommodate childcare, and a relaxed and supportive approach to children's illnesses and other domestic emergencies. Several respondents reported that their institutions provided them with childcare vouchers and details of local playschemes and babysitters to help them during school holiday periods. Some strong opinions were expressed, however, about employees with children having 'unfair' advantages over those who were child-free. Several respondents maintained that employees were just as likely to experience difficulties in supporting other family members as they would children. One academic commented:

'Work-life balance should not only be aimed at those with children. I have different types of dependants (elderly parents and disabled partner) but no provision for these is ever given consideration and I never get special treatment.'

Some observations were made to the effect that academics with children were able to take their leave during school holidays, and had considerable choice over the timing of their lectures, whereas these benefits were not available to those without young children. One respondent represented these views by remarking:

‘Give everyone the same rights rather than discriminating against people without children or those whose children are grown up’.

Are employees over-committed?

The measure of over-commitment used in this survey (Q4.12–17) provides an indication of the extent to which employees tend to be committed to, and involved in, their work – possibly to their own detriment and that of their families. Responses suggest that many academic and academic-related staff may indeed be over-committed to their jobs. Less than one-third (31%) of the sample indicated that they could easily relax and ‘switch off’ when they get home. The negative impact of work on family and friends was also highlighted. Sixty-two per cent of the sample revealed that people close to them believe they sacrificed too much for their jobs. Seventy-two per cent maintained that as soon as they got up in the morning they started thinking about work problems and 65% indicated that work was still on their minds when they went to bed. This is likely to have a detrimental affect on sleep patterns and 52% of respondents indeed revealed that if they postponed something they were supposed to do that day, they would experience sleeping difficulties that night.

Conflict between work and home life

Given the responses outlined above, it is not surprising that respondents generally perceived a high level of conflict between their work and home lives (Q4.18–22). Thus, over one-third of respondents (38%) strongly agreed that the demands of their work interfered with their non-working lives, with only 16% expressing disagreement (Q4.18). Slightly less than one-third (32%) also indicated that

the amount of time needed to do their work made it difficult for them to fulfil family and social responsibilities (only 17% strongly disagreed with this statement) (Q4.19). Furthermore, 39% strongly agreed that they failed to accomplish things that they wished to do in their life outside work due to the demands of their work (15% strongly disagreed) (Q4.20). Due to work-related duties, more than one-third of the sample (35%) strongly agreed that they were forced to make changes to their plans for non-work activities (15% strongly disagreed) (Q4.22). This survey also provides evidence that strain produced by work demands is likely to be imported into the non-work domain, as almost one respondent in four (24%) maintained that the demands of work resulted in their being irritable at home (Q4.23), and/or made them withdraw from family and friends (22%) (Q4.24).

Work-life balance – differences between academic and academic-related staff

Some differences were observed between academic and academic-related staff in terms of the quality of work-life balance they experienced. A table of differences between means, together with levels of significance, can be found in Appendix 3 (see page 61). As discussed above, employees from the academic grades worked at home on a more regular basis than their academic-related counterparts. Lecturers and researchers were significantly more likely than academic-related employees to be able to work without interruption when in their places of work, although the ability to do this was fairly rare among respondents from both groups. When working at home, academics made more work-related phone calls and accessed work e-mail on a more regular basis.

In general, academics were more likely than academic-related employees to feel that their jobs allowed them the scope to work where and when they pleased but, possibly as a result of this, they were also less inclined to feel that their home and work lives were separate. Evidence was found, however, that academics expected their work and

non-work lives to be integrated to some degree, as their ideal situation would be for the two domains to be less distinct than the ideal for respondents from academic-related grades.

Employees from academic-related grades were, on the whole, more satisfied than academics with the support their institutions provided to help workers achieve a balance between their work and family responsibilities. Furthermore, the findings of this study suggest that academic staff have a poorer balance between the work and non-work domains than their academic-related counterparts, and that the negative impact on the families of academics might be more intense. Academics were also significantly more likely to be over-committed to their jobs; in particular, they find it more difficult to relax in the evening, and are more inclined to go to bed thinking about work than those who are academic-related. Further evidence of over-commitment among this group was provided by the finding that lecturers and researchers more commonly reported that people close to them believed they sacrificed too much for their work. Furthermore, academics had higher mean scores than academic-related employees on all five individual items that measured work–family conflict. They were also more likely to indicate that they withdrew from family and friends in response to the demands they faced from work.

Knowledge of support services and the availability of help

Respondents were asked whether they felt able to discuss stress related problems in an open way with: (a) their line managers; and (b) their colleagues. In general, some reluctance was expressed about openly discussing such problems. A larger proportion of the sample revealed that they would not be able to talk about stress with their managers (45%) than those who felt they could do this (35%), whereas 20% were unsure (Q6.1). Respondents were considerably more likely to feel able to discuss stress with their colleagues, with 57% saying they would be able to do this, 28% would not, and 15% indicating some uncertainty (Q6.2). Academic-related employees felt

more able to discuss stress in an open manner with their line managers than those from the academic grades. Forty-seven per cent of respondents who were academic-related indicated they could do this, compared with 31% of teaching and/or research staff. No significant difference was found between groups in the extent to which respondents felt they could discuss stress with colleagues.

A considerable degree of uncertainty was revealed relating to the support available to employees to help them manage job-related stress. Sixty-two per cent of respondents indicated that occupational health services were available in their institutions, nine per cent indicated they were not and 29% were unsure (Q6.3). A higher degree of uncertainty regarding the availability of stress management training was found, as 44% of respondents revealed that they were unsure whether this service was available to them, compared with 41% who said it was (Q6.4). A similar proportion of the sample was also uncertain whether their institution provided a stress helpline or confidential counselling (43%), with 41% saying it was available and 16% indicating it was not (Q6.5). On the whole, academic-related respondents expressed a greater level of awareness than those from the academic grades of the services provided by institutions to help employees manage stress.

Few respondents were aware of the stress telephone helpline provided by the AUT: just 26% knew of this service (Q6.6), and only two per cent (ie 23 respondents) reported that they had actually used it (Q6.7). Evidently, the services currently provided to help employees manage stress need to be more visible, and employees encouraged to utilise them. Many respondents indicated that occupational stress was unrecognised, or even stigmatised, in their institutions. This suggests that some work needs to be done in creating a culture where stress can be openly discussed. One academic remarked that:

'In my institution discussing stress is taboo. Labelling somebody as 'stressed' is like an insult or a dirty secret to be hidden.'

Respondents frequently emphasised the need for institutions to acknowledge that suffering from stress was not a personal failure; they also expressed the desire for the sector to recognise the level of pressure that the workforce was currently experiencing, and for their institutions to develop formal stress management policies. Further research should investigate the availability and awareness of support services in UK HEIs, examine employees' attitudes about their effectiveness, and assess ways of publicising them.

Flexible working for parents

From April 2003, parents, adopters and guardians of children aged under six (or disabled children under 18), have had the legal right to ask their employers to adapt their working hours to suit their family responsibilities and also to request to work from home. Few respondents to this survey were aware of this policy. Eighteen per cent indicated that their employer had informed them that they could request flexible working, 43% reported they had not, and 39% were unsure (Q7.1). Interestingly, there was no difference in levels of awareness of the availability of flexible working between respondents with children of any age and those without. Clearly, information regarding flexible working policies and options should be made more visible to employees.

Gender and the experience of stressors and strains

No significant differences were found between men and women in overall levels of job demand, support, job control, effort and reward, job involvement, job satisfaction or psychological and physical health. Some gender differences were found, however, in more specific aspects of work for academic, but not academic-related, respondents. Details of the means and significance levels are found in Appendix 4 (see page 62). On the whole, male lecturers and/or researchers were more satisfied than females with their influence over decision-making processes at work; they were also happier with the level of support they receive from colleagues and immediate managers. Female respondents from the academic

grades were more likely than their male counterparts to report that they had been subjected to unacceptable behaviours such as bullying.

Men indicated that they had more time to prepare for their teaching, but were less satisfied with their students than women. Male academics, however, were happier than their female counterparts with their opportunities to undertake scholarly work than female. Interestingly, a recent analysis of demographics in UK higher education indicated that, among academics engaged in both teaching and research, males were 1.6 times more likely than females to be counted as research-active in the 2001 RAE (AUT, 2004).

Male academics were significantly more inclined to express negative perceptions of quality assessment procedures (both teaching and research), and were more likely to feel that quality assessment had compromised their professional independence than their female colleagues. A significantly higher proportion of women from the academic grades indicated that they had seriously considered leaving higher education. Academic women, however, were considerably more satisfied than men with their rates of pay. This is despite an analysis of HESA figures (AUT, 2004) finding a considerable gap between the salaries of male and female academics, with average earnings for women academics working full-time of £30,473 compared with men's earnings of £35,802.

Few gender differences were found in perceptions of work-life balance and working patterns and practices. Male academics typically worked fractionally more time in their institutions than their female counterparts but would rather spend more time working at home. There were no gender differences observed in the amount of time worked at home, but females worked a greater percentage of their time elsewhere.

The relationship between job stressors and strains

Correlational analyses were conducted to examine the job stressors that had the strongest relationships with

strains such as job satisfaction, psychological well-being (GHQ) and physical symptoms. Where significant relationships are found, however, this does not necessarily mean that these factors cause strain. While a high workload might engender anxiety, it is also possible that an anxious person would perceive their workload to be higher. Nevertheless, the findings reported here highlight areas that may give cause for concern. A correlational matrix that shows the strength of relationships between the main variables utilised in this study and significance levels can be found in Appendix 5 (see page 63).

Working hours and well-being

Statistically significant relationships were found between the number of hours worked per week, job satisfaction, physical and psychological health and perceived stress. As working hours increased, levels of general satisfaction with work reduced, whereas physical symptoms, psychological distress and perceptions of work-related stress increased. Employee well-being was also significantly related to the extent of time spent working during evenings and weekends. On average, respondents who did more of their work outside 'office hours' had higher levels of psychological distress and perceived stress, and lower levels of general job satisfaction than those who spent less time working during these times. For respondents from academic grades, working outside office hours was also associated with lower levels of satisfaction with teaching and research. The more hours respondents worked (during office hours as well as evenings and weekends), the higher their levels of job involvement and over-commitment to work, the less clear were their boundaries between working life and home life, and the more conflict they perceived between their work and home lives.

Job demands and well-being

A number of specific job demands had particularly strong relationships with employee well-being and job dissatisfaction. Perceptions of an unmanageable workload were associated with psychological distress and physical symptoms, job dissatisfaction and poor

work-life balance. Respondents who indicated that they had insufficient time to deal effectively with their students' problems and queries were also more likely to have elevated levels of strain and to find their work less satisfying than those who had fewer constraints on their time. Individuals who believed they had been subjected to unacceptable behaviour (such as bullying at work) had more physical and psychological symptoms, lower levels of job satisfaction and more spill-over of work demands and concerns into the non-work domain than those who indicated that they had not.

A lack of opportunity for personal development was also significantly associated with strain. Respondents who perceived fewer opportunities, on average, also reported less general job satisfaction and, in the case of academic staff, lower levels of satisfaction with their teaching and research. Academics who perceived more pressure to obtain research funding and to conduct and publish research also had elevated levels of all types of strain – most notably psychological distress. Clearly, demands to generate research funding and to increase one's research output may be particularly likely to result in strain in the face of lack of opportunity and support to undertake research, and competing demands from other areas of work.

Individuals whose perceptions of quality assurance procedures were more negative not only had lower levels of job satisfaction but also more symptoms of physical and psychological ill health and a poorer work-life balance.

Job control and support and employee well-being

The protective nature of job control and support from colleagues and supervisors has been well documented. Previous research has found that low levels of control and dissatisfaction with supportive features at work can have a negative impact on employee health and job satisfaction and can result in increased employee turnover (Jones & Bright, 2001). This study provides further support for these

associations. Respondents with lower levels of job control, on average, reported more psychological and physical ill health, more job-related stress and less job satisfaction. Academic and academic-related employees who reported more control over their jobs, in general, perceived clearer boundaries between their work and home lives and, consequently, less conflict between the two domains. Particularly strong relationships were found between job control and job satisfaction (both general and academic).

Similarly, respondents who perceived less support tended to report lower levels of physical and psychological health, less satisfaction with general and academic aspects of their jobs, and more conflict between their work and non-work lives. As with job control above, particularly robust relationships were found between perceptions of supportive colleagues and managers and satisfaction with work.

Work-life balance and well-being

The respondents to this survey who perceived clearer boundaries between their work and home lives, on average, reported lower levels of job stress, over-commitment and psychological and physical symptoms, and higher levels of job satisfaction. They were also likely to take more of their leave entitlement – which may suggest one mechanism by which they maintain better health. Analysis of respondents' leave-taking practices yielded some interesting findings. Only 40% of academics reported that they took all of their annual leave entitlement, whereas one-fifth indicated that they failed to take 10 days or more, and just under one respondent in 10 (nine per cent) did not take 15 days or more (Q5.21).

Many respondents wrote about the difficulties they experienced in trying to find time to take a break from work in the face of increased demands upon their time. Perhaps unsurprisingly, respondents with a greater discrepancy between their annual leave entitlement and the days they actually took, in general, had higher levels of involvement in, and over-commitment to, their work. They also reported

lower levels of physical and psychological health, and less job satisfaction. The less support respondents perceived from their places of work the fewer days leave that they took, suggesting that individuals feel unable to take their full entitlement due to pressure of work. Failing to take annual leave not only has a negative impact on employee health and well-being, it also has potentially serious implications for UK higher education, as individuals who took less of their entitlement were more likely to indicate that they had seriously considered leaving the sector.

The extent to which respondents perceived that their institutions helped them achieve a balance between their work and family responsibilities (and their degree of satisfaction with this) was significantly related to their well-being. Employees who believed that their employers were more instrumental in helping them balance their work and non-work lives were also less likely to indicate that they seriously intended to leave higher education. These findings clearly suggest that institutions can do considerably more in helping employees develop and maintain an effective work-life balance, and that this may result in healthier and more satisfied employees and higher levels of staff retention.

In the 1998 survey, 'frequent interruptions at work' was the most commonly cited source of pressure. The findings of the present study also highlighted the importance to employee well-being of the ability to work uninterrupted. The majority of individuals who indicated that they had many interruptions and disturbances in their jobs revealed that they found this to be distressing (81%). As discussed above, analysis of the open-ended questions in the survey indicates that university employees who experience more interruptions frequently cope by working at home during the day, or during evenings and weekends, when interruptions may be minimised. A considerable proportion of academic and academic-related work requires intense concentration. Working from home in order to minimise interruptions may lead to a disruption of the boundaries between work and home and,

consequently, perceptions of poor work–life balance. It is likely, however, that if employees are working at home during normal office hours rather than during evenings and weekends, and if they are comfortable with the level of integration between their work and their home lives, such risks will be minimised.

Job security, intentions to leave and well-being

There is evidence that the high levels of job insecurity found in this survey have had a negative impact on the workforce. Respondents who felt under personal threat of redundancy had higher levels of all types of strain than those who did not. Employees who indicated that they had seriously considered leaving higher education, on average also had significantly higher levels of perceived stress, psychological and physical ill health and lower levels of job satisfaction and control; they also tended to be more over-committed to their jobs, with a poorer work–life balance. Interestingly, those who indicated that they had considered leaving higher education were no more or less involved in their work than those who had not.

Comparisons with 1998 survey

Where relevant, comparisons with the findings of the 1998 survey have been included in the relevant sections above; however, this section provides an overview of similarities and differences between responses to items that were included in both surveys. While individual participants from 1998 were not followed up in the current survey, the size of the sample, together with the fact that respondents are from 99 different institutions throughout the UK and are broadly representative of the population of employees in the sector, means that broad comparisons can be made.

Table 2 (overleaf) shows the proportion of participants that agreed or strongly agreed with each statement in both surveys; the number of participants who responded to each question is also provided. Statistical differences between mean ratings were also assessed and these can be found in Appendix 6 (see page 64). A

higher proportion of respondents in the current survey than in 1998 indicated that their levels of responsibility had increased in the previous five years. Perceptions of job insecurity have also intensified: 25% of the current sample indicated feeling under personal threat of redundancy compared with 19% of those surveyed in 1998. Almost one half of respondents in 2004 (47%) indicated that they had seriously considering leaving higher education. This figure has risen from 44% in 1998.

Table 2 also compares perceptions of specific aspects of academic and academic-related work reported by participants in both surveys. In many cases, the level of agreement with the statements seems little changed: for example, a similar proportion of respondents in 1998 and 2004 indicated that they found their jobs stressful, lacked opportunities for promotion, and were satisfied with their levels of influence over decision making, and their opportunities for training and development. Although these perceptions do not appear to have worsened, it should be emphasised that for many of these issues the perceptions of employees remain strongly negative.

Some differences can nevertheless be observed that suggest a move in a positive direction. Most notably, a higher proportion of participants in the current survey (14% more) expressed satisfaction with the level of support they receive from their colleagues. Furthermore, 30% of participants in 2004 reported that the administrative and technical support they obtain is adequate, compared with 24% in 1998. Perceptions of the manageability of workloads also appear to have increased among academic and academic-related staff, and a smaller proportion of respondents to the present survey indicated that they have too much administrative paperwork. More academics now felt that they had ample opportunity for scholarly activity and were happy with the quality of their research than in 1998.

Although some of the respondents' perceptions relating to aspects of their work may appear to be

Table: 2 Comparisons between items (1998 and 2004)

Question stem	% agree			
	1998	(n)	2004	(n)
During the last three/five years...*				
level of responsibility increased	72	(765)	77	(1080)
redundancies/job cuts in institution	54	(684)	56	(1081)
felt under personal threat of redundancy	19	(754)	25	(1079)
subject of formal complaint by student or colleague	5	(769)	9	(1082)
subject of disciplinary or grievance	2	(766)	3	(1077)
seriously considered leaving HE	44	(768)	47	(1076)

* questions related to previous 3 years preceding 1998 survey, and 5 years preceding 2004 survey.

Question stem	% agree/strongly agree			
	1998	(n)	2004	(n)
I find my job stressful	70	(776)	69	(1094)
Workload is manageable	29	(773)	38	(1087)
Too much admin paperwork	69	(773)	65	(1076)
Lack opportunities for promotion	52	(766)	54	(1033)
Ample opportunities for training and development	33	(771)	40	(1076)
Appraisal process is fair	35	(735)	41	(957)
Communication is effective	21	(773)	23	(1093)
My responsibilities are clear	62	(772)	66	(1092)
Satisfied with influence over decisions	44	(773)	42	(1090)
Admin/technical support is adequate	24	(771)	30	(1085)
Happy with support from colleagues	43	(775)	57	(1094)
Lack time for students problems or queries	52	(731)	58	(938)
Enough time to prepare for classes	26	(617)	32	(823)
Lecture/tutorial groups too big	48	(604)	45	(805)
Ample opportunity/support for scholarly work	17	(633)	18	(878)
Happy with research quality	32	(620)	37	(838)

Academic staff only

During the last five years...				
Status of academic staff declined	86	(700)	77	(1027)
More pressure to research	80	(648)	79	(854)
More pressure to publish	96	(696)	90	(973)
More pressure for research funding	78	(646)	81	(844)
Management more sensitive to staff needs	4	(686)	7	(1005)
Too much emphasis on QA	74	(694)	79	(1006)
QA fair representation of work	40	(648)	38	(927)
QA compromised independence	37	(634)	42	(857)
QA positive impact on students	23	(652)	23	(942)
The effects of RAE are positive	21	(664)	17	(952)

more positive than those reported in the earlier survey, it should again be emphasised that for many of these issues the perceptions of employees remain strongly negative. A smaller percentage of

respondents to the present survey felt that there was increased pressure to publish in the preceding five years, but it was still the case that a considerable majority (90%) of the sample still perceived an

increase in pressure. Overall, this suggests that academics perceived a continued increase in pressure to publish research findings over the last 10 years. Similarly, while a significantly lower proportion of respondents in the 2004 survey than in 1998 felt that the status of academic staff had declined, it is a matter of considerable concern that more than three-quarters of the current sample (77%) felt that there had been a further decline in the preceding five years.

Some aspects of academic and academic-related work over the previous five years received more negative ratings in the current survey than in 1998. In general, academics who responded to the 2004 survey were significantly more likely to experience pressure to obtain research funding. Perceptions of quality assessment procedures were also more negative than those expressed six years ago: for example, the impact of the RAE was perceived to be less positive, and the proportion of respondents who indicated that quality assessment had compromised their professional independence increased from 37 to 42%.

Health and Safety Executive Benchmarks

The UK Health and Safety Executive (HSE) are currently developing benchmarks for measuring employers' performance in preventing work-related stress (see www.hse.gov.uk/stress). It is envisaged

that this will make it easier for the HSE to enforce stress-related health and safety offences. They have set cut-off points for several job stressors, indicating that organisations will only achieve the minimum standard if a specified percentage of employees indicate that they are satisfied with the way these elements of work activity are managed.

Although the questions used in this survey were not identical to those suggested by the HSE and therefore comparisons made with their suggested benchmarks can only be approximate, the stressors they consider to be the most important were included. Findings suggest that UK HEIs do not meet these minimum standards in the majority of the specified work stressors. Table 3 compares some of the benchmarks recommended by the HSE with the results of this survey. As can be seen, the benchmark minimum relating to bullying and role clarity has been exceeded but that relating to task control is almost met. The HSE proposes that at least 85% of employees should state that they are able to cope with the demands of their jobs, whereas only 38% of academic and academic-related employees who responded to this survey indicated that their workload is manageable. There is also considerable discrepancy between the HSE benchmarks and the current study in relation to support – particularly support from management.

Table 3: Comparison between HSE benchmarks and the results of the present survey

Stressor	HSE benchmark	Current study
I can cope with the demands of my job	85%	38%
I have an adequate say over how I do my work	85%	75%
I get adequate support from colleagues and superiors	85%	57% colleagues 49% line manager 21% senior managers
I am not subjected to unacceptable behaviour such as bullying	65%	69%
I have a clear understanding of my roles and responsibilities	65%	66%

4 Conclusion

The study conducted in 1998 concluded that the changing nature of work in the higher education sector had resulted in overload, long working hours, job insecurity and high levels of stress and strain for many academic and academic-related employees in the UK. Six years on, employees perceive little improvement in the level of demand they experience from the diverse and frequently conflicting pressures upon them. The results of this survey (both from the quantitative data and the responses to the open-ended questions) strongly suggest that quality assurance procedures, in particular, have resulted in greater demands for many employees. Strong associations have been found in this survey between employees' perceptions of demand and ill health, job dissatisfaction and intentions to leave the sector. The level of demand experienced by academic and academic-related employees is highlighted by the fact that the proportion of respondents who indicated that they could cope with the demands of their jobs (38%) is less than half of the minimum Health and Safety Executive (HSE) benchmark of 85%. The level of job-related stress and psychological distress present in employees in the sector (although no greater than that found in the 1998 survey) remains considerably higher than that reported by most other occupational groups. Furthermore, similar to the findings of the 1998 study, UK academic and academic-related employees remain twice as likely as the general population to experience psychological disturbance.

Some less negative factors were identified in this survey, but most still give cause for concern. There is some evidence that working hours may have improved for some. Average working hours remain long for the majority of academic and academic-related employees, however, and a considerable number are evidently working in excess of the 48-hour weekly limit set by the European Union's working time directive.

Academic and academic-related employees in the UK appear to have a clear understanding of their roles and responsibilities. Most employees also experience some degree of control over the work they do, and the

HSE minimum standard for this is almost met. The majority of respondents, however, are dissatisfied with the level of control they have over decision-making, and many feel that demands from quality from internal and external bodies have eroded their professional identity and perceptions of control.

Overall, perceived support from colleagues appears to have improved. It should be emphasised, however, that the HSE minimum standards relating to support from colleagues and superiors are a long way from being met. Particularly notable is the fact that perceived support from senior managers is noticeably less than HSE benchmark minimum. Almost one respondent in five has experienced bullying and intimidation at work in the past five years. Although this is one area where academic institutions do meet the HSE benchmark standards, there is still some cause for concern.

The majority of respondents are at least moderately satisfied with their jobs; this suggests that, despite the high demands, work in higher education in the UK has some positive elements. In particular, both academic and academic-related employees are satisfied with the degree of intellectual stimulation they receive. Both groups also evidence generally high levels of satisfaction with job security, although it should be emphasised that one respondent in four has felt under threat of redundancy during the past five years. People are less satisfied with the more extrinsic aspects of their work such as pay, opportunities for promotion and working hours. Academic-related employees are typically more satisfied with their jobs than their colleagues from academic grades. This is consistent with the findings of Winefield *et al* (2003) who have recently published data on levels of job satisfaction in a large sample of academic and non-academic employees from 17 Australian universities.

On the whole, academics expressed satisfaction with the courses they teach and with the students they teach and supervise. Little more than half of the sample, however, were satisfied with the quality of their research. Academics clearly perceive ever-

rising pressures to obtain research funding and to publish high quality research. That these pressures are strongly associated with physical and psychological ill health is perhaps unsurprising given that a considerable majority of respondents believe that they do not have the opportunity and support necessary to undertake scholarly work. Many academics commented that the only time they had available for research was evenings and weekends, which was not conducive to work–life balance.

Although some respondents were clearly satisfied with some aspects of their work, the level of dissatisfaction experienced by academic and academic-related employees in the UK is characterised by almost one-half of the sample (47%) indicating that they had seriously contemplated leaving academia. More academics than their academic-related colleagues (particularly female academics) expressed the desire to leave the sector. The main reasons cited by respondents for wishing to leave were job insecurity, work overload, excessive bureaucracy, few prospects for promotion, poor work–life balance and stress.

Many respondents indicated that the issue of occupational stress went unrecognised in their institutions. Some remarked that an admission of being stressed was perceived as a sign of weakness. Only one-third of respondents felt that they could discuss stress-related issues with their line managers, whereas almost one-half indicated that they would not be able to do this. These findings may imply less than satisfactory relationships between managers and staff in UK HEIs and perhaps also some stigmatisation of stress in the sector. Just over four respondents in 10 indicated that stress management training and confidential counselling were available in their institutions. A similar proportion, however, were unsure whether these services were available or not. Particularly notable was the finding that 74% of respondents were unaware of the existence of the AUT stress helpline. Less than one respondent in five indicated that their employers had told them that parents, adopters and

guardians of children under the age of six could request flexible working. Interestingly, there were no significant differences in levels of awareness between respondents with young children and those without. It is clear that the services currently provided in UK HEIs to help employees manage stress and the work–home interface need to be considerably more visible.

In particular, this survey highlights the importance of an acceptable balance between work and home lives for employee health, job satisfaction and retention. Although employees generally appreciate the flexibility inherent in their work, many do not feel they can achieve a work–life balance that meets their needs under present conditions. There was considerable variation between respondents in the extent to which they report a boundary between work and home: most feel they have less separation between the two domains than they would like, and the majority experience some degree of negative ‘spill-over’ from work into their non-working lives. Separation between work and home life does not merely involve creating physical boundaries: the majority of respondents indicated that their work also invaded their non-working lives in a psychological sense. This was particularly characterised by preoccupation with work issues when outside the workplace, and difficulties in relaxing and sleeping. Four respondents out of five maintained that their work produced strain that made it difficult for them to fulfil their family and social roles. Irritability with, and withdrawal from, family and friends were also commonly reported in this survey.

Only four respondents in 10 indicated that they take all their annual leave entitlement. Many remarked that the demands of their work meant that they were unable to find the time to take a break. The results of this survey, however, suggest that annual leave may be important for employee well-being, as respondents who took a greater proportion of their leave entitlement were more psychologically and physically healthy, more satisfied with their jobs, and had a better work–life balance than those who did not.

Academic and academic-related employees in the UK regularly work during evenings and weekends in order to meet the demands placed upon them. Furthermore, academics are frequently forced into working during evenings and weekends because the frequent interruptions, noise and lack of privacy that many employees experience when attempting to work in their institutions are not conducive to the concentration and creativity necessary for them to do their work effectively. Many respondents feel that they have a fair degree of autonomy over when and where they do their work, and academics, in general, do a significant proportion at home as they feel that they can work without interruption. Both groups of employees, particularly those in shared or open-plan offices, would like to work at home more than they do at present as they believe they are more productive there than when they are in their institutions.

It should be emphasised, however, that academic and academic-related employees wish to work from home more often during normal working hours, rather than evenings and weekends. Fourteen per cent of academics who responded to this survey, however, indicated that they were generally expected to be at their places of work during office hours. These 'visibility' and 'open-door' policies appear to be more common in UK HEIs; however, they actively work against the work-life balance of employees, as many feel they have little choice but to extend their working day into evenings and weekends in order to cope with the demands of their jobs. Such practices are unlikely to help employees create an acceptable work-life balance. Evidence has been provided in this survey that such policies need to be carefully considered, as expectations for employee visibility during office hours are likely to result in employees having to catch up with other aspects of their work during their own time.

Boundaries between work and home appear to be fairly blurred for the majority of respondents. Few respondents reported that they managed to maintain complete separation between their work and home lives. Some variation was found in the extent to which people wish for a clear demarcation between their work

and home lives. On the whole, however, respondents appear to benefit from clearer boundaries between their work and home lives (in terms of better health and job satisfaction), although academics are happy to accept greater integration of the two domains than their academic-related colleagues. As most respondents expressed the desire to have more separation between the domains than they currently experience, it appears that an acceptable work-life balance is rarely found in academic and academic-related employees in the UK. Although respondents from both academic and academic-related grades wish to work from home more frequently, there is a risk that this practice might result in further blurring of the boundaries between the two domains. Employees may need to develop skills and strategies to help them create effective physical and psychological boundaries between their work and home lives.

The findings of this survey suggest that an environment that supports employees in establishing and maintaining a balance between their work and non-work lives would improve psychological and physical health, employee retention and arguably performance. The majority of respondents, particularly those from the academic grades, feel that their institutions make few attempts to help employees achieve work-life balance. Some, however, recognised that flexibility of working hours and the ability to work from home was a benefit provided by employers. As highlighted above, however, the availability of flexible hours and working from home is far from consistent in UK HEIs. A number of people with young children commented that their institutions were supportive in their attempts to manage their work and family responsibilities. Although further support for working parents is clearly necessary, strong opinions were voiced that work-life balance was not only for parents, and all employees should have the scope to balance work with other activities. It is clear, therefore, that work-life balance programmes need to encompass the needs of the workforce as a whole.

This survey found considerable variation among respondents in what constitutes an acceptable work-

life balance. Employees have some responsibility in maintaining a balance between the work and non-work domains that meets their needs – although many might benefit from some guidance in how this may be accomplished. In order to achieve and maintain a state of balance, however, employees need to be supported by organisational policies and practices. The availability and legitimisation of flexible working hours and the ability to work from home are likely to go some way towards improving work–life balance for many. In order for any significant improvement to occur, however, it is necessary for enhanced institutional support to be paralleled with a creative re-assessment of the expectations that institutions have of their employees.

The findings of this survey have important implications for national and institutional policy and practice in UK higher education. The provision of high quality education by UK institutions is dependent upon healthy and motivated staff who are provided with the resources necessary to do their work, and who have an acceptable balance between their working and non-working lives. Academic and academic-related employees in UK HEIs clearly have a great deal of commitment to their jobs; many are highly involved in their work and obtain considerable satisfaction from some aspects of it. Nonetheless, even with their propensity for commitment in the face of low extrinsic rewards, we have possibly reached a limit to the time academics can reasonably be expected to spend working, and the number of roles they are expected to assume. The demands on employees will increase still further if government targets for student participation are to be met. The sector is already experiencing considerable difficulty with recruitment and retention of staff. In order to achieve an improvement in working conditions in HEIs in the UK, attention should be paid to the factors highlighted in this survey.

Respondents were invited to nominate the improvements that would do most to minimise their work-related stress and maximise their work–life balance. Those most commonly mentioned are itemised below.

Working hours: many respondents wished for an end to the ‘long hours’ culture that is currently endemic in HE, together with the expectation on the part of management that work should be done outside of reasonable working hours.

Control of workload: respondents stressed the need for a managed allocation of workloads and transparency in workload planning. Many academics indicated that a national policy for a reasonable teaching load and achievable research output was necessary. This should involve the implementation and enforcement of a workload model that balances all aspects of academic work, provides protected time for research, and builds in sufficient time for innovation and planning.

A reduction in the bureaucratic and administrative burdens for academic staff: respondents believe improved administrative staff levels and a reduction in quality assurance procedures could help achieve this. It was also thought that increased administrative demands, increased teaching loads and increased research output should be recognised as mutually incompatible.

An improvement in staff:student ratios: spiralling student numbers should be matched by enhanced staffing levels. Respondents also emphasised the need for a reduction in pressure to recruit and retain students who cope poorly with the demands of higher education.

Less emphasis on performance indicators and external accountability: in general, respondents would like their institutions to minimise the costs of excessive quality assurance procedures; they also would like a greater recognition from internal and external sources of their professionalism and that they can be trusted to do a good job.

Increased pay: respondents wish their salaries to be comparable with industry and private consultancy, and commensurate with the qualifications, experience and levels of responsibility they provide.

More open and skilled management: respondents highlighted the need for greater opportunities for management training and the development of a less authoritarian management style. The need for more transparency in departmental and institutional decision-making was also commonly emphasised, together with the wish for greater participation in decision-making processes.

More formalised and transparent promotion procedures: in particular, respondents believe that promotion should be based on excellence in teaching, not merely research. Many respondents indicated that those who had less time for research due to competing demands on their time were frequently passed over for promotion.

Improved professional development and training: respondents proposed the introduction of career path management, and a reasonable allocation of time for professional development and training in general. In particular, the need for more training in student counselling was emphasised.

A reduction in the use of fixed-term contracts: respondents believed that the continued use of fixed-term contracts on the scale that they are used at present (around 40% of the workforce) was not only damaging the quality of teaching and research in the UK, but detrimental to the well-being of employees.

A recognition that work–life balance is a key issue in academia: respondents clearly value the flexibility that their jobs can provide, but the availability of flexible working is inconsistent even among academics. Respondents believe that the formalisation of flexible working practices would help employees develop firmer boundaries between the workplace and the home and, consequently, a more acceptable work–life balance. It should be emphasised, however, that work–life balance is a relevant issue for the workforce as whole, rather than just employees with young children.

Encouragement for employees to take their full annual leave entitlement: respondents maintained that a more transparent workload management system and adequate staffing levels would allow all employees to take their full entitlement of annual leave if they so wished.

Preparation for retirement: some respondents indicated that more attention should be given to continuity between work and retirement; possibly by allowing people to phase-in retirement with flexible hours and, if desired, continuing involvement with the academic community.

A realistic, practical and visible response to bullying: respondents would like a formalised ‘zero tolerance’ policy on bullying to be introduced in the sector, and for their institutions to provide counselling for victims of bullying. They also believe that managers should be trained in order to improve their levels of sensitivity in spotting and handling cases of bullying among the workforce.

The introduction of stress management policies and wider availability of stress management training: on the whole, respondents feel that formal and consistent stress management policies should be introduced across the sector. They believe that institutions should provide a range of options for managing stress and that the services available should be more visible. In particular, the need for training in relaxation techniques, time management, and how to achieve a work–life balance was emphasised. Respondents believe that stress management training should be included in induction programmes for new staff; they also suggest that all managers should be trained in managing their own stress and that of their staff. There was an overwhelming recognition, however, that stress management merely treats the symptoms and the necessity for a substantial culture change that tackles the causes of stress in HEIs was emphasised.

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Section 1: About you and your job

(In reporting results, totals may not add up exactly to 100 due to rounding.)

1.1 Are you (n=1108)?

Male	55%
Female	45%

1.2 Do you consider yourself to belong to an ethnic minority group (n=1108)?

Yes	5%
No	76%
No response	19%

1.3 Into which of the following age bands do you fall (n=1103)?

25–29	2%
30–34	9%
35–39	12%
40–44	15%
45–49	18%
50–54	19%
55–59	17%
60–64	7%
65+	1%

1.4–1.5 Institution title and job titles. Not included in report.

1.6a Is your main employment function (n=1092):

Teaching only	10%
Research only	8%
Teaching and research	59%
Librarian	2%
Computer staff	4%
Administrator	10%
Other	7%

1.6b If your work is academic, into which of the following subject areas do you fall (n=855)?

Science, Engineering and Technology	34%
Medicine, Dentistry and Veterinary	11%
Social studies	23%
Arts and Humanities	22%
Other	10%

1.7 Are you employed (n=1108)?

Part-time	10%
Full-time	90%

1.8 Is your employment (n=1103)?

Fixed-term	18%
Permanent	81.5%
Casual	0.5%

1.9 How many years have you been employed in higher education in the UK (n=1104)?

0–3 years	6%
4–9 years	31%
10–19 years	35%
20+ years	36%

1.10 How many years have you been employed at your current institution (n=1089)?

1–3 years	15%
4–9 years	31%
10–19 years	30%
20+ years	24%

1.11 Please indicate the average number of hours you work* per week (on/off site) during term-time (n=1086):

0–10	1%
11–15	0.5%
16–20	2%
21–25	2%
26–30	1.5%
31–35	4%
36–40	17%
41–45	18%
46–50	21%
51–55	14%
56–60	10%
60+	9%

(* work means any tasks related to your contract of employment)

1.12 Please indicate the average proportion of the hours you work per week which are before 9am and after 5pm Monday–Friday, together with the proportion of time you generally work at weekends (n=1087):

0–10%	22%
11–20%	40%
21–30%	22%
31–40%	9%
41–50%	4%
More than 50%	3%

Section 2: Your job content

	Mean (SD)	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
2.1. My workload is manageable (<i>n</i> =1087)	2.84 (1.17)	13%	34%	15%	33%	5%
2.2 I have too much administrative paperwork (<i>n</i> =1076)	3.78 (1.19)	4%	14%	17%	29%	36%
2.3 I do not have enough time to enable me to deal effectively with students' problems/queries (<i>n</i> =938)	3.56 (1.16)	3%	21%	18%	33%	25%
2.4 I lack opportunities for promotion (<i>n</i> =1033)	3.54 (1.26)	6%	19%	21%	23%	31%
2.5 I have ample opportunity for training and development (<i>n</i> =1096)	3.01 (1.16)	10%	27%	23%	31%	9%
2.6 Communication within my organisation is effective (<i>n</i> =1093)	2.42 (1.16)	25%	33%	19%	19%	4%
2.7 I am clear about my responsibilities (<i>n</i> =1092)	3.56 (1.09)	4%	17%	13%	49%	17%
2.8 I am satisfied with my level of influence over departmental/work group decisions (<i>n</i> =1090)	2.92 (1.29)	17%	26%	15%	32%	10%
2.9 I have a choice in deciding what I do at work (<i>n</i> =1098)	3.50 (1.08)	4%	17%	18%	45%	16%
2.10 I have a choice in deciding how I do my job (<i>n</i> =1099)	3.80 (0.95)	2%	10%	13%	55%	20%
2.11 I have a good deal of say in decisions about work (<i>n</i> =1096)	3.25 (1.17)	8%	21%	22%	36%	13%
2.12 I have the possibility of learning new things through my work (<i>n</i> =1094)	3.99 (0.89)	2%	7%	10%	53%	28%
2.13 My work demands a high level of skill or expertise (<i>n</i> =1092)	4.52 (0.71)	1%	2%	3%	33%	61%
2.14 I am happy with the level of support I obtain from my colleagues (<i>n</i> =1094)	3.41 (1.13)	6%	18%	19%	42%	15%
2.15 I am happy with the level of support I obtain from my immediate line manager (<i>n</i> =1070)	3.19 (1.32)	14%	19%	17%	32%	17%
2.16 I am happy with the level of support I obtain from managers above my immediate line manager (<i>n</i> =1043)	2.42 (1.19)	27%	29%	22%	16%	5%
2.17 I have an adequate level of administrative and technical support (<i>n</i> =1085)	2.55 (1.22)	23%	33%	14%	25%	5%
2.18 I am subjected to unacceptable behaviours (eg bullying) at work (<i>n</i> =1080)	2.21 (1.24)	36%	33%	13%	11%	7%
2.19 My annual appraisal process has fairly recognised my achievements and abilities (<i>n</i> =957)	2.97 (1.22)	17%	18%	24%	33%	8%
2.20 I find my job stressful (<i>n</i> =1094)	3.80 (1.02)	3%	10%	18%	43%	26%

Questions 2.21–2.34 applied mainly to academic staff, but other respondents indicated their response where applicable

2.21 I have enough time to prepare for my classes (<i>n</i> =823)	2.69 (1.12)	14%	38%	16%	29%	3%
2.22 My lecture/tutorial groups are too big (<i>n</i> =805)	3.27 (1.24)	5%	29%	21%	23%	22%
2.23 I have ample opportunity and support to undertake scholarly work (<i>n</i> =878)	2.15 (1.14)	34%	39%	9%	15%	3%
2.24 I am happy with the quality of my research (<i>n</i> =838)	2.84 (1.22)	15%	30%	17%	30%	7%

During the last FIVE years

	Mean (SD)	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
2.25 The status of academic staff has declined in this country (<i>n</i> =1027)	4.12 (.90)	1%	4%	18%	36%	41%
2.26 The pressure to publish has increased significantly (<i>n</i> =973)	4.41 (.77)	0%	3%	7%	35%	55%
2.27 Management has become more sensitive to the needs of academic staff (<i>n</i> =1005)	2.01 (.92)	32%	41%	20%	6%	1%
2.28 There is too much emphasis on quality assurance, such as assessment of teaching and research, and academic audit (<i>n</i> =1006)	4.19 (1.0)	2%	5%	13%	30%	49%
2.29 In general, the results of quality assessments fairly represented the work of my department or work group (<i>n</i> =927)	3.01 (1.09)	11%	20%	30%	33%	5%
2.30 I feel under more pressure to increase my research or consultancy activity (<i>n</i> =854)	4.10 (0.94)	1%	6%	14%	40%	39%
2.31 I feel under more pressure to obtain research funding (<i>n</i> =844)	4.22 (0.94)	1%	5%	12%	33%	48%
2.32 Quality assessment has compromised my professional independence (<i>n</i> =857)	3.33 (1.11)	5%	18%	35%	24%	18%
2.33 On balance, the effects of the Research Assessment Exercise on higher education have been positive (<i>n</i> =952)	2.36 (1.10)	26%	30%	27%	14%	3%
2.34 Quality assessment, on the whole, has had a positive effect on the student experience (<i>n</i> =942)	2.63 (1.07)	17%	27%	33%	20%	3%

During the last FIVE calendar years

	Yes	No	Don't know
2.35 Has your level of responsibility at work significantly increased? (<i>n</i> =1080)	77%	21%	2%
2.36 Have there been redundancies or job cuts in your institution? (<i>n</i> =1081)	56%	31%	13%
2.37 Have you felt under personal threat of redundancy? (<i>n</i> =1079)	25%	73%	2%
2.38 Have you been the object of a formal complaint by a student or colleague? (<i>n</i> =1082)	9%	90%	1%
2.39 Have you been the subject of a disciplinary or grievance procedure? (<i>n</i> =1077)	3%	96%	1%
2.40 Have you seriously considered leaving higher education (other than through early retirement)? (<i>n</i> =1076)	47%	51%	2%
2.41 If so, why?			

2.42–2.57 Your job-related efforts and rewards

■ Effort mean (*n*=1058) =2.71 (SD=0.88) (score of 5=high distress due to effort, 3= somewhat distressed by effort, 1= no effort)

■ Financial/status rewards mean (*n*=1056) = 3.64 (SD=1.10) (score of 1=high distress due to low reward, 3= somewhat distressed due to lack of reward, 5=receive reward, no distress)

■ Esteem rewards mean ($n=1047$) = 4.00 (SD=1.03) (score of 1=high distress due to low reward, 3= somewhat distressed due to lack of reward, 5=receive reward, no distress)

Frequencies scoring high distress

	% scoring mean above 3 indicating somewhat distressed	% scoring mean above 4 indicating clear distress /extreme distress
Academics		
Effort	65%	13%
Financial/status reward	41%	15%
Esteem reward	26%	8%
Academic-related		
Effort	54%	12%
Financial/status reward	28%	10%
Esteem reward	17%	6%

Section 3: Where you work

3.1 During an average term-time week, what percentage of your work do you estimate you do...

	Mean	(SD)
In your work institution?	74%	(18.1)
At home?	23%	(16.8)
Elsewhere (eg meetings, conferences away from your work base)	12%	(11.7)

NB. Total estimates came to more than 100%

3.2 During an average term time week, ideally what percentage of your work would you like to do...

	Mean	(SD)
In your work institution?	73%	(21.8)
At home?	29%	(19.1)
Elsewhere (eg meetings, conferences away from your work base)	13%	(9.67)

NB Total came to more than 100%.

To what extent are you able to work without interruption.....

	Mean (SD)	Never (1)	Rarely (2)	Sometimes (3)	Frequently (4)	Always (5)
3.3 At work ($n=1096$)	2.30 (0.91)	18%	45%	26%	10%	1%
3.4 At home ($n=969$)	3.91 (0.88)	1%	7%	14%	54%	23%

If you do any of your work at home please answer the following questions. If not please go to Section 4.

	More than 5 times a day (6)	More than once a day (5)	Daily (4)	More than once a week (3)	Once a week (2)	Less than once a week (1)	Never (0)
3.5 How often do you access work e-mail at home? ($n=1024$)	11%	16%	16%	19%	5%	11%	22%
3.6 How often do you make work phone calls at home? ($n=1023$)	3%	9%	7%	25%	12%	32%	11%

Section 4: Work-life Balance

4.1 Who do you share your household with? (Please tick those that apply) (n=1108)

No-one	17%
Spouse/partner	77%
Under schoolage child/ren	10%
Schoolage child/ren	27%
Above schoolage child/ren	12%
Elderly relative/s	1%

4.2 If you have a spouse or partner, does he/she work in? (n=864)

Higher education as an academic	19%
Higher education in academic-related work	6%
Other work in higher education	4%
Further education	3%
Teaching	9%
FE/teaching-related work	4%
He/she does not work in the education sector	43%
He/she does not have paid employment	12%

4.3 Which of the following two jobs is most similar to your job? (n=1102)

Person A is expected to work in their workplace on a 9–5 basis Mon–Fri			Person B can decide for himself/herself where and when to work	
Exactly like A	Similar to A	In between A and B	Similar to B	Exactly like B
6%	18%	42%	26%	7%

4.4 Please rate your current position on the following scale? (n=1104) Mean rating=5.53 (SD = 2.26)

My work and home lives are completely separate	1–2	3–4	5	6–7	8–9	There is no separation between my work and home lives
	11%	23%	9%	37%	20%	

4.5 Please rate how you would ideally like to be? (n=1097) Mean rating=3.30 (SD=2.03)

My work and home lives would be completely separate	1–2	3–4	5	6–7	8–9	There would be no separation between my work and home lives
	44%	25%	16%	12%	2%	

To what extent...	Mean (SD)	Not at all (1)	A little (2)	Quite a bit (3)	Very much so (4)
4.6 Would you say that your institution helps workers to achieve a balance between their work and family responsibilities? (n=996)	1.77 (0.79)	43%	39%	15%	3%
4.7 Are you satisfied with how well your institution is addressing the work and family needs of its employees? (n=910)	1.84 (0.85)	41%	37%	18%	4%
4.8 Do you have a clear boundary between your working life and your home life? (n=1091)	2.32 (0.99)	23%	38%	24%	15%

	Mean (SD)	Not at all (1)	A little (2)	Quite a bit (3)	Very much so (4)
How well does...					
4.9 Your working schedule, and the degree of flexibility in this schedule, meet your own needs? (<i>n</i> =1092)	2.81 (0.79)	4%	29%	47%	19%
4.10 Your working schedule, and the degree of flexibility in this schedule, meet the needs of your spouse/partner? (<i>n</i> =857)	2.59 (0.85)	10%	34%	41%	14%
4.11 Your working schedule, and the degree of flexibility in this schedule, meet the needs of your children/other dependents? (<i>n</i> =505)	2.57 (0.85)	10%	35%	42%	13%

Please indicate to what extent you personally agree or disagree with the following statements...

	Mean (SD)	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
4.12 I get easily overwhelmed by time pressures at work (<i>n</i> =1101)	2.44 (0.77)	9%	48%	34%	9%
4.13 As soon as I get up in the morning I start thinking about work problems (<i>n</i> =1108)	2.91 (0.78)	4%	24%	50%	22%
4.14 When I get home, I can easily relax and 'switch off' work (<i>n</i> =1100)	2.13 (0.79)	21%	48%	27%	4%
4.15 People close to me say I sacrifice too much for my job (<i>n</i> =1087)	2.74 (0.85)	7%	31%	42%	20%
4.16 Work rarely lets me go: it is still on my mind when I go to bed (<i>n</i> =1098)	2.82 (0.83)	5%	30%	43%	22%
4.17 If I postpone something that I was supposed to do today I'll have trouble sleeping at night (<i>n</i> =1094)	2.59 (0.86)	10%	38%	37%	15%

Please rate the extent of your agreement with the following statements...

Strongly disagree (1) – strongly agree (7)	Mean (SD)	1-2	3-5	6-7
4.18 The demands of my work interfere with my life outside work (n=1106)	4.73 (1.72)	16%	46%	38%
4.19 The amount of time my job takes up makes it difficult to fulfil other responsibilities (eg family, social, community etc) (n=1105)	4.53 (1.72)	17%	51%	32%
4.20 Things I want to do in my life outside work do not get done because of the demands my job puts on me (n=1103)	4.76 (1.71)	15%	46%	39%
4.21 My job produces strain that makes it difficult to fulfil other duties (eg family, social, community etc.)(n=1105)	4.38 (1.74)	20%	51%	29%
4.22 Due to work-related duties, I have to make changes to my plans for non work activities (n=1104)	4.68 (1.70)	15%	50%	35%
4.23 Due to the demands of my work, I am irritable at home (n=1103)	4.16 (1.76)	23%	53%	24%
4.24 Due to the demands of my work, I withdraw from family and friends (n=1104)	3.81 (1.85)	31%	47%	22%

Section 5: Your health and well-being

Please rate how satisfied or dissatisfied you feel with each of the following features of your present job

	Mean (SD)	Extremely dissatisfied (1)%	Very dissatisfied (2)%	Moderately dissatisfied (3)%	Not sure (4)%	Moderately satisfied (5)%	Very satisfied (6)%	Extremely satisfied(7)%
5.1 Your job overall? (n=1099)	4.28 (1.55)	4	12	19	7	35	20	3
5.2 The work itself? (n=1095)	4.71 (1.43)	2	6	17	5	36	28	5
5.3 The physical working conditions? (n=1099)	4.38 (1.58)	5	9	20	7	31	24	4
5.4 Relationships with your line manager? (n=1090)	4.55 (1.73)	8	8	12	9	26	29	8
5.5 Your promotion prospects? (n=1075)	3.47 (1.74)	17	17	19	14	18	12	3
5.6 Your rate of pay? (n=1104)	3.25 (1.76)	20	20	24	4	19	11	2
5.7 Your hours of work? (n=1100)	3.54 (1.62)	12	17	25	9	24	11	2
5.8 Your job security? (n=1103)	4.49 (1.85)	11	8	8	12	23	28	10
5.9 Your opportunities to use initiative? (n=1103)	4.97 (1.49)	4	4	9	8	33	32	10
5.10 The intellectual stimulation you receive? (n=1103)	4.89 (1.67)	6	6	11	5	29	29	14

Please rate how satisfied or dissatisfied you feel with each of the following features of your present job

	Mean	(SD)	Extremely dissatisfied (1)%	Very dissatisfied (2)%	Moderately dissatisfied (3)%	Not sure (4)%	Moderately satisfied (5)%	Very satisfied (6)%	Extremely satisfied(7)%
For academic staff only:									
5.11 The courses or modules you teach (n=812)	4.91	(1.29)	2	4	12	6	42	29	5
5.12 The students you teach and/or supervise (n=822)	4.81	(1.43)	2	7	13	6	37	28	7
5.13 Your research (n=813)	4.24	(1.68)	6	13	17	9	28	20	6
5.14 Your academic freedom: ie the opportunity to pursue your own ideas? (n=836)	4.61	(1.74)	7	7	15	9	26	23	13

The following questions assess the extent to which you are involved in your work. Please rate how much you agree with the following statements:

	Mean	(SD)	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
For academic staff only:							
5.15 The most important things that happen to me involve my job (n=1094)	2.68	(1.12)	13%	39%	19%	24%	5%
5.16 Most of my interests are centred around my job (n=1101)	2.82	(1.15)	10%	40%	12%	32%	6%
5.17 To me, my job is a very large part of who I am (n=1100)	3.73	(0.97)	3%	12%	10%	60%	15%
5.18 I am very much personally involved with my job (n=1100)	3.91	(0.81)	1%	7%	10%	64%	18%
5.19 My job is a very important part of my life (n=1100)	4.05	(0.71)	1%	3%	7%	68%	21%
5.20 What is your annual leave entitlement?							Mean= 30 days (SD=6.2)
5.21 How much of your leave entitlement do you actually take per year?							Mean= 24 days (SD=8.1)

Section 6: The support available to you

Can you discuss stress related problems in an open way?

	Yes	No	Don't know
6.1 With your line manager? (n=1097)	35%	45%	20%
6.2 With your colleagues? (n=1095)	57%	28%	15%

Which (if any) of the following services are available to you?

	Yes	No	Don't know
6.3 Occupational health services (n=1095)	62%	9%	29%
6.4 Stress management training (n=1085)	41%	15%	44%
6.5 Stress helpline/confidential counselling (provided by your institution) (n=1088)	41%	16%	43%

About the AUT's stress telephone helpline...

	Yes	No
6.6 Are you aware of this service? (n=1098)	26%	74%
6.7 Have you ever used this service? (n=1097)	2%	98%

Section 7: Work-family policies

From 6 April 2003 parents/adopters/guardians of children aged under six or disabled children aged under 18 have the right to request flexible working, although this does not entitle them to insist on a new pattern of work. By law, eligible employees can request:

- a change to the hours they work;
- A change to the times when they are required to work;
- to work from home.

	Yes	No	Don't know
7.1 Has your employer told you that parents adopters / guardians of children aged under six or disabled children aged under 18 have the right to request flexible working? (n=1049)	18%	43%	39%

Physical symptoms inventory (n=1108).

Number of symptoms during the past 30 days (not seen by Dr).	Mean = 4.44 (SD = 2.97)
Number of symptoms during the past 30 days (seen by Dr).	Mean = 0.41 (SD = 1.12)

General Health Questionnaire (n=962)

Mean score, Likert scoring = 1.23 (SD = 0.54)
GHQ scoring – % scoring at or above cutoff (3) = 50%

Scale reliabilities

Scale	Number of items	Cronbach's alpha
Job control	4 items	0.80
Job support	4 items	0.71
Extrinsic effort	5 items	0.84
Financial and status reward	4 items	0.81
Esteem reward	3 items	0.84
Total reward	10 items	0.88
Over-commitment	5 items (Q14 reversed)	0.81
Work-home conflict	7 items	0.92
Job satisfaction	10 items	0.84
Academic job satisfaction	4 items	0.88
Job involvement	4 items	0.82
GHQ	12 items	0.92

Appendix 3 Differences between academic and academic-related staff in work–life balance

	Academic staff (n=683–840)		Non-academic staff (n=175–246)		F	p
	Mean	(SD)	Mean	(SD)		
% term-time hours worked at work	70.7	(18.3)	84.8	(16.3)	117.7	***
% term-time hours worked at home	24.7	(17.2)	13.2	(11.6)	71.3	***
Ideal % worked at work	69.5	(21.8)	84.9	(17.2)	97.7	***
Ideal % worked at home	30.2	(19.3)	18.7	(14.3)	35.7	***
Able to work without interruption: never (1)... always (5)	2.33	(0.91)	2.18	(0.89)	5.3	*
Access work e-mail at home more than 5 times a day (6)... never (0)	3.01	(2.1)	2.49	(1.87)	10.6	***
Work phone calls at home more than 5 times a day (6)... never (0)	2.35	(1.59)	1.69	(1.42)	28.49	***
Expected to work in workplace (1), can decide where to work (5)	3.33	(0.89)	2.38	(0.92)	212.2	***
Work and home are completely separate (1), no separation (7)	5.87	(2.1)	4.35	(2.3)	93.7	***
Ideal work and home are completely separate (1), no separation (7)	3.52	(2.1)	2.56	(1.7)	44.16	***
Clear boundary between work and home life: not at all (1)... very much so (4)	2.18	(0.92)	2.76	(1.08)	70.48	***
Satisfaction with help given to achieve work–life balance:	1.69	(0.77)	2.03	(0.83)	32.68	***
Satisfaction with way institution addresses work and family needs: not at all (1)... very much so (4)	1.74	(0.79)	2.14	(0.92)	37.22	***
Over-commitment	2.76	(0.57)	2.63	(0.62)	7.58	**
Work–family conflict	4.54	(1.4)	4.05	(1.5)	22.68	***

1 This ratio is an average based on figures from all HEIs in the UK

2 In all these studies, caseness levels were determined by the 3 or more cut-off point

3 Only statistically significant differences are listed.

* Significant at the 0.05 level (two-tailed)

** Significant at the 0.01 level

*** Significant at the 0.001 level

Appendix 4 Differences for academic staff only¹

Ratings of job (high score = greater agreement)	Male	Female	F	p
Satisfied with level of influence over departmental / work group decisions (<i>n</i> =825)	2.91 (1.23)	2.74 (1.28)	3.9	*
Happy with level of support from colleagues (<i>n</i> =829)	3.48 (1.08)	3.24 (1.20)	9.29	**
Happy with support from immediate line manager (<i>n</i> =805)	3.24 (1.31)	3.04 (1.33)	4.66	*
Subjected to unacceptable behaviours (bullying) (<i>n</i> =814)	2.14 (1.22)	2.34(1.26)	5.01	*
Enough time to prepare for classes (<i>n</i> =819)	2.75 (1.14)	2.59 (1.08)	3.94	*
Ample opportunity to undertake scholarly work (<i>n</i> =786)	2.31 (1.18)	1.94 (1.06)	20.68	***

Satisfaction ratings (7-point scale, 7=high satisfaction)				
Satisfaction with students taught and supervised (<i>n</i> =816)	4.70 (1.44)	4.99 (1.38)	7.96	**
Satisfaction with pay (<i>n</i> =836)	2.90 (1.68)	3.20 (1.72)	20.64	***

Work-life balance				
% term-time hours worked at work (<i>n</i> =808)	72%	69%	4.15	*
% term-time hours worked elsewhere (ie not at work or home)(<i>n</i> =493)	10%	14%	13.8	***
Ideal % worked at work (<i>n</i> =781)	71%	67%	8.24	**
Ideal % worked elsewhere (<i>n</i> =479)	12%	15%	7.95	**

During last five years			Chi²	
Seriously considered leaving higher education (<i>n</i> =821)	44%	56%	10.5.	***

¹ Only statistically significant differences are listed.

* Significant at the 0.05 level (two-tailed)

** Significant at the 0.01 level

*** Significant at the 0.001 level

Appendix 5 Relations between stressors and strains

Correlational matrix of relationships between main variables utilised in this study

	GHQ	Job satisfaction	Satisfaction with academic work	Symptoms	Perceived stress	Average number of hours worked per week in term-time	Proportion of hours worked outside of office hours	Job Involvement	Over-commitment	Work-family conflict
Job satisfaction	-0.55***									
Satisfaction with academic work	-0.45***	0.62***								
Symptoms	0.44***	-0.35***	-0.28***							
Perceived stress	0.51***	-0.46***	-0.34***	0.39***						
Average number of hours worked per week in term-time	0.12***	-0.07*	-0.04	0.10**	0.24***					
Proportion of hours worked outside office hours	0.10**	-0.13***	-0.08*	0.04	0.14***	0.44***				
Job involvement	0.12***	0.04	0.08*	0.12***	0.16***	0.32***	0.24***			
Over-commitment	0.54***	-0.41***	-0.29***	0.43***	0.59***	0.33***	0.29***	0.36***		
Work-family conflict	0.50***	-0.50***	-0.36***	0.41***	0.59***	0.38***	0.34***	0.32***	0.73***	
Seriously considered leaving higher education	-0.30***	0.39***	0.33***	-0.23***	-0.26***	0.01	0.00	0.06*	-0.23***	-0.26***

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

*** Correlation is significant at the 0.001 level

n varies considerably between variables due to missing responses. For most variables *n*=912–1086, and for academic satisfaction, *n*=729–770.

Appendix 6 Differences between means of items used in 1998 and 2004 studies

Differences between means for current (2004) and 1998 sample

Questionnaire item (1=strongly disagree, 5=strongly agree)

	Mean (SD) 1998 (n=633-773)	Mean (SD) 2004 (n=805-1094)	F	p
I find my job stressful (n=1094)	3.79 (.94)	3.80 (1.02)	0.06	ns
Workload is manageable	3.35 (1.08)	2.84 (1.17)	89.5	***
Too much administrative paperwork	3.90 (1.08)	3.78 (1.19)	5.25	*
Lack opportunities for promotion	3.52 (1.15)	3.54 (1.26)	0.12	ns
Ample opportunities for training and development	3.03 (1.01)	3.01 (1.16)	0.10	ns
Appraisal process is fair	3.09 (1.13)	2.97 (1.22)	4.62	*
Communication is effective	3.56 (1.08)	2.42 (1.17)	457.1	***
My responsibilities are clear	2.53 (1.00)	3.56 (1.09)	433.5	***
Satisfied with influence over decisions.	2.95 (1.14)	2.92 (1.28)	0.32	ns
Lack time for students' problems or queries	3.46 (1.02)	3.56 (1.16)	3.4	ns
Enough time to prepare for my classes	3.43 (1.03)	2.69 (1.17)	162.3	***
Lecture/tutorial groups are too big	3.32 (1.19)	3.27 (1.24)	0.60	ns
Ample opportunity/support to undertake scholarly work	3.74 (1.05)	2.15 (1.14)	756.1	***
Happy with my research quality	3.25 (1.14)	2.84 (1.22)	42.1	***

During the last FIVE years

Status of academic staff has declined	4.28 (0.79)	4.12 (0.90)	13.7	***
More pressure to increase my research or consultancy activity	4.14 (0.88)	4.10 (0.94)	.83	ns
More pressure to publish	4.56 (0.61)	4.41 (0.77)	17.6	***
More pressure to obtain research funding	4.09 (0.91)	4.22 (0.94)	7.25	**
Management has become more sensitive to the needs of academic staff	2.03 (0.84)	2.01 (0.92)	0.07	ns
Management has become more sensitive to the needs of academic staff	3.97(0.84)	2.01 (0.92)	1995	***
Too much emphasis on quality assurance, such as assessment of teaching and research, and academic audit	3.98 (1.02)	4.19 (1.0)	17.75	***
Results of quality assessments fairly represented the work of department or work group	2.95 (1.06)	3.01 (1.09)	1.15	ns
Quality assessment has compromised professional independence	3.25 (0.99)	3.33 (1.11)	2.37	ns
Effects of the RAE on higher education have been positive	3.47 (1.06)	2.36 (1.10)	410.1	***
Quality assessment has had a positive effect on the student experience	3.30 (1.00)	2.63 (1.07)	156.2	***

Psychological well-being

GHQ	1.27 (0.54)	1.23 (0.54)	2.4	ns
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ns Not significant

* Significant at the 0.05 level (two-tailed)

** Significant at the 0.01 level

*** Significant at the 0.001 level

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